

SYSTEM AND METHOD FOR IMPLEMENTING A CENTRALIZED CUSTOMIZABLE OPERATING SOLUTION

FIELD OF INVENTION

The present invention relates broadly, but not exclusively, to systems and methods for implementing a centralized customizable operating solution.

BACKGROUND

In many fields of customer service, customers interact with computers in a variety of ways because businesses that provide customer services rely more and more on the interface between customers and computers, and to save costs it has become crucial for many businesses to find ways to facilitate this interaction. There are a wide range and variety of applications designed for handheld computers that use graphical user interfaces (GUI) and voice user interfaces (VUI) and other voice dialogue recognition and synthesizing systems, allowing for customers to engage and communicate wirelessly in many ways destined to evolve further, contributing to the evolution and progress in customer and computer interaction, resulting in a creative service orientated intelligent adaptive interface rather than command and action based, leading to customers to be more active rather than passive. Established customer interactions with computers are based on an archetypal structure and feedback loops, providing for a plurality of information and instruction flows between a customer and a system installed in a computer. For example, a customer has a goal and acts with the intent to achieve the intended goal through a computer that provides for a customer friendly environment under which a customer hopes to achieve the intended goal.

Currently available point of sales (POS) and customer relation management (CRM) systems that are used in the hospitality and restaurant industry still constrains customers choices to a plurality of pre-composed menu items with limited options to fully accommodate customers' requirements, needs, and preferences. As a result, operators are handicapped by such inflexible systems, and customers are inclined to make choices customers would not make if there was a more comprehensive menu solution available to them. Existing POS and CRM systems offer some flexibility, but do not allow customers to comprehensively influence and customize ingredient selection for menu items, or the creation of own menu items to meet a customer's own budgets, health concerns, ingredient preferences, and other personal lifestyle choices, and customers are still required to rely on the presumed skill of service staff within a restaurant, or the willingness of the operator to address all customer's wishes and concerns, especially allergies and diabetic concerns, and personal lifestyles and ingredient preferences. Even when visiting chain restaurants, customers also find themselves again and again to repeat wishes, needs, preferences, and concerns because there is no service platform available today that allows for the sharing of a customer's wishes, needs, preferences, and concerns between said chain restaurants.

A need therefore exists to provide systems and methods for implementing a centralized customizable operating solution.

SUMMARY

Embodiments of the present invention provide a Centralized Customizable Operating Solution (CCOS), which is a cloud computing based and subscription based centralized customizable operating solution for front and back of house operations for a plurality of participating restaurants, but can also be used by a plurality of other business establishments or entities, set up for the purpose to providing customer services that include fully customized products and services, and combinations thereof and fully customizable packages comprising of products and services within their business premises and beyond through the internet. For example, the CCOS allows customers to fully customize a plurality of standard menu items available within said participating restaurants to meet customers personal health and lifestyle choices, including calories, nutrition, budget, portioning, allergies and diabetic concerns, and ingredient non-preferences and preferences. The CCOS allows a membership structure for private and corporate members, providing member customers with the option to create a plurality of corporate menus for employees and own personal menus that are linked to the relevant plurality of participating restaurants. Member customers can customize and create corporate and personal menu items and orders for said menu items can be placed at any participating restaurant, for dine-in, delivery, or collection as ready cooked menu items, or ready portioned ready to cook menu items for home cooking through an online ordering system and access to online cooking instructions.

There are a plurality of embodiments within the present invention of the cloud based centralized customizable operation solution CCOS illustrated exemplarily under **FIG. 01** to **FIG. 57**, embracing an independent, interlinked, interexchangeable module infrastructure illustrated exemplarily under **FIG. 47** that includes a comprehensive service and supply operation infrastructure provided by third parties to support a plurality of single or multi segments front of house and back of house operation of participating restaurants, illustrated exemplarily for a multi segment restaurant operation under **FIG. 03**. The CCOS also embraces a comprehensive approach of pre-plate and post plate waste management. The CCOS monitors all food products and ingredients from the point of receiving them to the point of service and disposal. Allowing for the full customization of menu items illustrated exemplarily under **FIG. 26** and **FIG. 27**, that varies between members and non-members. Menu items can be customized and created while within a participating restaurant, at home, at work and on the go to meet personal health and lifestyle choices and requirements, including making a plurality of personal customizable plans involving but are not limited to calories, nutrition, budget, portioning, allergies and diabetic concerns, illustrated exemplarily under **FIG. 16, FIG. 17, FIG. 18, FIG. 19, FIG. 20, and FIG. 21**; also embracing ingredient preferences and non-preferences illustrated exemplarily under **FIG. 27**. This allows that post plate food waste can be further reduced because customers, applying the full customization options, can save money to plan, scale, and budget what is put on the plate and consumed, without wasting food placed on overloaded plates packed with non-preferred food. Member customers are also able to share a plurality of standard, customized and personal created menu items, illustrated exemplarily under **FIG. 23** to introduce others to the concept provided by participating restaurants. A further embodiment of the present invention of the CCOS **1** is a scalable and customizable membership and loyalty service management, including loyalty products and services that are available within a plurality of participating restaurants and/or provided by a

plurality of third parties, illustrated exemplarily under **FIG. 11** and **FIG. 12**, allowing for a plurality of customized settings under the plurality of member accounts, illustrated exemplarily under **FIG. 15**. Member users can log on to an online CCOS 1 service for home cooking instruction for customized ready portioned menu items comprising of a plurality of ingredients that can be delivered and/or collected at a participating restaurant. Through its plurality of relevant independent interlinked interexchangeable modules within the CCOS 1, the head office can manage the plurality of operations. The CCOS 1 allows for adding a single or plurality of said modules and/or groups of modules to expand operations, illustrated exemplarily under **FIG. 47**.

The cloud based centralized customizable operating solution (CCOS), see e.g. **FIG. 01**, according to an embodiment of the present invention is a centralized management and service approach, involving a plurality of independent interlinked / inter-exchangeable modules within the CCOS **FIG. 47** comprising of a central server module that is in communication with a plurality of input and execution modules, wherein each input module is configured to accept inputs from a user relating to customized operations associated with the user; wherein the central server module is configured to generate corresponding outputs based on the accepted inputs, and transmits each output to a relevant execution module for execution of the output. The aforementioned customized operations associated with the user include, but are not limited to tasks, processes, functions and requirements that are specifically selected or chosen by the user. In this manner, each generated output is related to at least one task, process, function and/or requirement that is specifically selected or chosen by the user. The aforementioned CCOS system for implementing a customizable operating solution further includes a plurality of databases linked and/or integrated into the independent interlinked modules. The aforementioned step of generating corresponding outputs based on the accepted inputs includes, but is not limited to the sub-step of: accessing the one or more data sources to retrieve relevant customizable auto calculations, algorithms and/or rules to facilitate generation of the corresponding outputs. The acceptance of the inputs from the user depends on an attribute of the user. In this context, the user includes, but is not limited to: a customer, a staff member or a third party. In this context, an attribute includes, but is not limited to: membership status and customer privilege/priority level. For example, a member or a customer with a higher privilege/priority level has access to more customized operations compared to a non-member or a customer with a relatively lower privilege/priority level. As another example, a staff member with a specific or higher access/privilege/priority level has access to more customized operations compared to staff members with a relatively restricted access or lower privilege/priority level. The aforementioned outputs include, but are not limited to computer executable instructions, output signals and notifications. The aforementioned execution module may be an intelligent cooking station or a service counter placemat. The intelligent cooking station and the service counter placemat can execute instructions received from the central server module. The intelligent cooking station and/or the service counter placemat can utilize tableware identification and tracking (e.g. customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices) to facilitate execution of the instructions. The aforementioned execution module may be also being an inventory management module that utilizes product and product container identification and tracking (e.g. via NFCs/RFIDs devices) for inventory management. One or more of the aforementioned input modules may be connected to a data acquisition module. The data acquisition module is configured to generate an input based on its application data. For

example, a data acquisition module may be a electronic weighing apparatus, a temperature sensor and/or barcode scanner. The weighing apparatus and temperature sensor can provide inputs (in the form of weight and temperature readings) to an associated input module.

Further, herein described is a method for implementing a centralized customizable operating solution, comprising, providing a central server module that is in communication with a plurality of input modules and a plurality of execution modules, configuring each input module to accept inputs from a user relating to customized operations associated with the user, configuring the central server module to generate corresponding outputs based on the accepted inputs, and transmit each output to a relevant execution module for execution of the output.

The CCOS can be up scaled and customized for franchise operation to support single or plurality of front and back of house segments as illustrated exemplary under **FIG. 02** and **FIG. 03**, and include third party supplies and services. The aforementioned independent interlinked modules include a plurality of comprehensive analytic and projection tools, illustrated exemplary under **FIG. 49, 50, 51, 52, 53**, and a centralized inventory management system, illustrated exemplary under **FIG 56**.

In operation, the CCOS uses a plurality of multifaceted screen displays, illustrated exemplary under **FIG. 09** for a plurality of provided front of house mobile restaurant use device interfaces MRUDIs and stationary restaurant use devices interface SRUDIs, illustrated exemplary in the exemplary floor plan under **FIG. 03**. Personal user device interfaces PUDIs, also illustrated exemplary in the exemplary floor plan under **FIG. 03** can also access the CCOS system within a participating restaurant or remotely, and display the same screen displays, illustrated exemplary under **FIG. 09** for a landing screen. Customers who become members can create accounts and sub-accounts, illustrated exemplary under **FIG. 15**. The CCOS allows for private and corporate accounts under which sub-accounts can be established. Member and sub-member accounts include customizable individual personal menus. Members can link their PUDIs with the CCOS and use their PUDIs within a restaurant envelope to place orders, whereby member customers, and with some limitations non-members, can order menu items from standard menus provided by participating restaurants, and customize said standard menu items, and create own personal menu item from the scratch using the cuisine options, key ingredient options, and the ingredient exchange function, illustrated exemplary under **FIG. 13 and 27**, making use of all available restaurant provided ingredients. Members and sub-members can save said standard, customized, and own created menu items into their personal menus, and order said saved menu items from their personal menus at any participating restaurants for dine-in, delivery, and collection either across the counter or from a 24 hour dispenser (**FIG.10**).

Member and sub-member customers can also customize and create menu items based on their personal framework data, illustrated exemplary under **FIG 16**, and create and save in their account a plurality of personal menus and diet plans. Such plans can include and based on but are not limited to personal calorie and nutrition intake, illustrated exemplary under **FIG. 17**, personal portioning preferences illustrated exemplary under **FIG. 18**, menu item and mealtime budgets illustrated exemplary under **FIG. 20**, exclude ingredients with allergy concerns illustrated exemplary under **FIG. 21**, with further option to combine said settings into

a single menu and/or diet plan, and activate or de-activate individual settings during a menu item searches, illustrated exemplary under **FIG. 25** and **28**. Specific diabetic plans can also be created and saved in the personal menus. It allows for the customization and creation of menu items in line with diabetic requirements applying diabetic exchange tools and glycemic index and glycemic load tools, illustrated exemplary under **FIG. 19** and **FIG. 25**. Ingredient preferences and non-preferences can also be established. Members can share their personal menu items with other member and with non-member, illustrated exemplary under **FIG. 23**, and make use of a comprehensive loyalty program illustrated exemplary under **FIG.12**. The cloud based centralized customizable operating solution CCOS **FIG. 01** of the present invention also uses a new approach for back of house operations of participating restaurants. It also involves the plurality of the independent interlinked modules system; illustrated exemplary under **FIG. 4748** that is linked to a plurality of provided newly conventionalized multifaceted screen displays. A typical screen display is illustrated exemplary under **FIG. 31** representing the plurality of service use device interfaces SUDIs that are positioned at a plurality of service stations throughout a participating restaurants back and front of house operation, illustrated exemplary under **FIG. 03**. It includes, but is not limited to a deliveries station screen and process flow, illustrated exemplary under **FIG. 41 and 43** a plurality of storage station screens, illustrated exemplary for a chiller storage under **FIG. 44**, a plurality of preparation and portioning station screens and process flow, illustrated exemplary under **FIG. 39 and 40**, a plurality of pre-cooking and cooking station screens and process flow, illustrated exemplary for a pre-cooking and cooking station under **FIG. 37 and 38**, involving also waste management, illustrated exemplary under **FIG. 52**. Cooking and service operations are monitored from a chef frontline cooking station screen, illustrated exemplary under **FIG. 36**. Overall operation management is executed from the manager office station screen, illustrated exemplary under **FIG. 32** and includes a chef office station screen, illustrated exemplary under **FIG. 34**. The CCOS is designed to allow for real-time and continued interlinked monitoring and management of services and the movement of ingredients and individual staff performances, and in particular front and back of house service performances, illustrated exemplary under **FIG. 05**, using sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices and intelligent mats, illustrated exemplary under **FIG. 57**. The CCOS uses the method of standardized portioning and portion pricing throughout a participating restaurant operation, and comprehensive inventory data tracking, involving sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices. Portioning standards are used for menu engineering and customer billing. Ordered standard, customized, and created menu items are sent directly from the MRUDI, SRUDIs, and PUDIs to the relevant back of house SUDI station, illustrated exemplary for an order displayed on the screen of a SUDI cooking station, illustrated exemplary under **FIG. 37**, showing detailed ingredients, that are listed in sequence of cooking order, the relevant portioning for each ingredient, cooking times for each ingredient, hob and hob dial heat position, use of cookware and equipment, overall time tracker, and use of tableware and plating instruction, and other relevant information to ensure consistency. Every order is tracked from the point of order, illustrated exemplary under **FIG. 05**, which includes the tracking of an order when it leaves for exemple a cooking, fast food, bar, and/or cafes' service station. The cloud based CCOS and its participating restaurants can expand and can be managed globally, providing member customers the supporting infrastructure to access and order their own personal menus and menu items, and even make adjustments to said personal menu items, while away from home visiting other regions and countries were

participating restaurants are situated. The cloud based CCOS can be customized to accommodate stand alone restaurant operations, restaurants within hotel operations, hospital and canteen operations etc., and include also non-restaurant operations that provide customized products and services, and packages comprised of products and services like beauty businesses and spa operations, and a plurality of other business operations.

The illustrated exemplary screen displays and diagrams are not intended to suggest any limitation in relation to the scope complexity, and frequency of use, applied methods and application of layout, design, technology, processes, computations and functionality, and the plurality of practical uses and applications of the illustrated functions for a plurality of user device interfaces, including projections of such interactive functions onto a plurality of surfaces, embracing also virtual and augmented reality solutions.

According to one aspect, there is provided a system for implementing a centralized customizable operating solution, comprising: a central server module that is in communication with a plurality of input modules and a plurality of execution modules, wherein each of the plurality of input modules is configured to accept inputs from a user relating to customized operations associated with the user, and wherein the central server module is configured to: generate at least one corresponding output based on the accepted inputs; and transmit the at least one corresponding output to a selected one of the plurality of execution modules for execution of the at least one corresponding output.

The customized operations associated with the user may comprise at least one of: tasks, processes, functions and requirements that are selected by the user, such that the at least one corresponding output is related to the tasks, processes, functions and/or requirements that are selected by the user.

The system may further comprise at least one data source module that is in communication with the central server module, the at least one data source module having stored therein one or more data sources,

wherein the central server module is further configured to: access the one or more data sources to retrieve a relevant calculation, algorithm and/or rule to generate the at least one corresponding output based on the accepted inputs.

Each of the plurality of input modules may be further configured to determine an attribute of the user such that acceptance of the inputs from the user is based on the determined attribute of the user. The attribute of the user may comprise a membership status or a customer priority level.

The at least one corresponding output may comprise at least one of: computer executable instructions, output signals and notifications.

Each of the plurality of execution modules may comprise either an intelligent cooking station or a service counter placemat that is configured to execute the computer executable instructions received from the central server module.

The intelligent cooking station or the service counter placemat may comprise tableware identification and tracking devices to facilitate execution of the computer executable instructions.

- 5 Each of the plurality of execution modules may comprise an inventory management module that is configured to track inventory using product identification and tracking devices.

At least one of the plurality of input modules may be in communication with a data acquisition module that is configured to generate input data for at least one of the plurality of input
10 modules based on acquired data.

According to another aspect, there is provided a method for implementing a centralized customizable operating solution, comprising: providing a central server module that is in communication with a plurality of input modules and a plurality of execution modules,
15 configuring each of the plurality of input modules to accept inputs from a user relating to customized operations associated with the user, and configuring the central server module to: generate at least one corresponding output based on the accepted inputs; and transmit the at least one corresponding output to a selected one of the plurality of execution modules for execution of the at least one corresponding output.

20 The customized operations associated with the user may comprise at least one of:
tasks, processes, functions and requirements that are selected by the user,
such that the at least one corresponding output is related to the tasks, processes, functions and/or requirements that are selected by the user.

25 The method may further comprise:
providing at least one data source module that is in communication with the central server module, the at least one data source module having stored therein one or more data sources; and
30 configuring the central server module to:
access the one or more data sources to retrieve a relevant calculation, algorithm and/or rule to generate the at least one corresponding output based on the accepted inputs.

35 The method may further comprise configuring each of the plurality of input modules to determine an attribute of the user such that acceptance of the inputs from the user is based on the determined attribute of the user. The attribute of the user may comprise a membership status or a customer priority level.

40 The at least one corresponding output may comprise at least one of: computer executable instructions, output signals and notifications.

Each of the plurality of execution modules may comprise either an intelligent cooking station or a service counter placemat, wherein the method may further comprise configuring the intelligent cooking station or the service counter placemat to execute the computer executable
45 instructions received from the central server module.

The intelligent cooking station or the service counter placemat may comprise tableware identification and tracking devices to facilitate execution of the computer executable instructions.

- 5 Each of the plurality of execution modules may comprise an inventory management module, wherein the method may further comprise configuring the inventory management module to track inventory using product identification and tracking devices.

- 10 At least one of the plurality of input modules may be in communication with a data acquisition module, wherein the method may further comprise configuring the data acquisition module to generate input data for at least one of the plurality of input modules based on acquired data.

BRIEF DESCRIPTION OF THE DRAWINGS

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FIG. 01 illustrates a case example of the system network infrastructure diagram of the present invention of a cloud based customizable centralized operating solution CCOS 1.

FIG. 02 illustrates a system network infrastructure diagram of the present invention of the cloud based CCOS 1, involving exemplarily a single participating restaurant.

- 20 **FIG. 03** illustrates a case example of a multi segment restaurant floor plan comprising of a back of the house and front of the house operation.

FIG. 04 illustrates a typical case example of the pairing of a plurality of restaurant provided MRUDIs and member PUDIS at a table within a participating restaurant.

- 25 **FIG. 05** illustrates a case example of a typical four-seater table and a related diagram, illustrating the wireless login and pairing of MRUDIs and PUDIs. The SUDIs are not reflected.

FIG. 06 illustrates a diagram that illustrates the versatility of the present invention of the CCOS 1.

- 30 **FIG. 07** illustrates exemplarily a startup screen that provides private and corporate member users and their respective sub-members users, and non-member users the entrance to receive access to the CCOS 1.

FIG. 08 illustrates a diagram in relation to the startup screen, illustrated exemplarily under **FIG. 07** that leads to the landing screen, illustrated exemplarily under **FIG. 09** of the present invention of the CCOS 1.

- 35 **FIG. 09** illustrates exemplarily the interactive landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS 1.

FIG. 10 illustrates a diagram of a member users menu function of the landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS 1.

FIG. 11 illustrates a flow diagram of a member use loyalty program function of the landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS 1.

- 40 **FIG. 12** illustrates a flow diagram of a member user loyalty services and products function tabs and of the landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS 1 of the present invention of the CCOS 1.

FIG. 13 illustrates a flow diagram of a member user create my own function of the landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS 1.

- 45 **FIG. 14** illustrates a flow diagram of a member user communication function of the landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS 1.

FIG. 15 illustrates a flow diagram of a member **802** user **803** account function tab **816** of the landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS **1**.

FIG. 16 illustrates a flow diagram of personal health and wellness setting 1 involving a plurality of base data of the landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS **1**.

FIG. 17 illustrates a diagram of the calories (kcal) and nutrition function of the landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS **1**.

FIG. 18 illustrates a diagram of the portionings function of the landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS **1**.

FIG. 19 illustrates a diagram of the Diabetics function of the landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS **1**.

FIG. 20 illustrates a diagram of the Budget function of the landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS **1**.

FIG. 21 illustrates a diagram of the allergy function of the landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS **1**.

FIG. 22 illustrates a diagram of the member help function of the landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS **1**.

FIG. 23 illustrates a diagram of the member sharing function of the landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS **1**.

FIG. 24 illustrates a diagram of the central segment of the landing screen of the landing screen, illustrated exemplarily under **FIG. 09** of the present invention of the CCOS **1**.

FIG. 25 illustrates a diagram of the health and wellness segment of the landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS **1**.

FIG. 26 illustrates a diagram of the cuisine option and key ingredient option of the landing screen, illustrated exemplarily under **FIG. 09** of the present invention of the CCOS **1**.

FIG. 27 is illustrates a diagram of the ingredient exchange segment, illustrated exemplarily under **FIG. 09** of the present invention of the CCOS **1**.

FIG. 28 illustrates a diagram of the standard menu segment of the landing screen illustrated exemplarily under **FIG. 09** of the present invention of the CCOS **1**.

FIG. 29 illustrates a diagram of the shortcut menu function process, exemplarily for the pre-order quick service reservation shortcut of the present invention of the CCOS **1**.

FIG. 30 illustrates exemplarily a startup screen for a plurality of SUDIs, illustrated exemplarily under **FIG. 30** providing a plurality of staff users and third party users the mode to access to the CCOS **1**.

FIG. 31 illustrates exemplarily a typical SUDI landing screen **1845** for the head office, subsidiary, representation offices, branch offices, and participating restaurants of the present invention of the CCOS **1**.

FIG. 32 illustrates exemplarily a typical SUDI landing screen of the present invention of the CCOS **1** for the managers SUDI of a participating restaurant.

FIG. 33 illustrates exemplarily the managers SUDI landing screen plurality of customizable main menu function tabs of the present invention of the CCOS **1**.

FIG. 34 illustrates exemplarily a typical SUDI landing screen of the present invention of the CCOS **1** for the chefs SUDI of a participating restaurant.

FIG. 35 illustrates exemplarily the chefs SUDI landing screen plurality of customizable main menu function tabs of the present invention of the CCOS **1**.

FIG. 36 illustrates exemplarily a typical SUDI cooking line screen display of the present invention of the CCOS **1** for the chefs station.

FIG. 37 illustrates exemplarily a typical SUDI cooking screen display of the present invention of the CCOS 1 for a plurality of cooking station.

FIG. 38 illustrates exemplarily a typical SUDI cooking line flowchart of the present invention of the CCOS 1 relating to a typical cooking station.

5 **FIG. 39** illustrates exemplarily a typical SUDI screen display of the present invention of the CCOS 1 for a plurality of preparation and portioning station.

FIG. 40 illustrates exemplarily a typical SUDI preparation and portioning station flowchart of the present invention of the CCOS 1.

10 **FIG. 41** illustrates exemplarily a typical SUDI screen display of the present invention of the CCOS 1 for a delivery and dispatch station,

FIG. 42 illustrating exemplarily a typical delivery/receiving station flow diagram of the present invention of the CCOS 1.

FIG. 43 illustrates exemplarily a typical SUDI screen display of the present invention of the CCOS 1 for a staff station.

15 **FIG. 44** illustrates exemplarily a typical SUDI screen display of the present invention of the CCOS 1 for a plurality of storage stations.

FIG. 45 illustrates exemplarily a typical SUDI screen display of the present invention of the CCOS 1 for a plurality of service stations including mobile SUDIs.

20 **FIG. 46** illustrates exemplarily a typical SUDI screen display of the present invention of the CCOS 1 for a back of house staff station.

FIG. 47 illustrates exemplarily the independent interlinked and interexchangable plurality of a higher and lower level modem including compartmentalized database modules arrangement of the present invention of the CCOS 1.

25 **FIG. 48** illustrates exemplarily the plurality of base data and the relevant corresponding financial ratios utilized in relation to a plurality of analytics by the present invention of the CCOS 1.

FIG. 49 illustrates exemplarily a plurality of restaurant performances data related utilized in relation to a plurality of analytics by the present invention of the CCOS 1.

30 **FIG. 50** illustrates exemplarily a plurality of individual station performances and data utilized in relation to a plurality of analytics by the present invention of the CCOS 1.

FIG. 51 illustrates exemplarily further a plurality of individual station performances and data utilized in relation to a plurality of analytics by the present invention of the CCOS 1.

FIG. 52 illustrates exemplarily a plurality of individual segment and data utilized in relation to a plurality of analytics by the present invention of the CCOS 1.

35 **FIG. 53** illustrates exemplarily a typical SUDI screen display of the present invention of the CCOS 1 for a head office SUDI, and a plurality of representation, branch, or subsidiary offices SUDIs.

40 **FIG. 54** illustrates exemplarily a typical online screen display of the present invention of the CCOS 1 for a plurality of third party product and service providers and a plurality of loyalty product and service providers (TPUDIs).

FIG. 55 illustrates exemplarily a typical PUDI screen display of the present invention of the CCOS 1 accessible to member 2819 users 2821 as part of the home online service of the present invention of the CCOS 1.

45 **FIG. 56** illustrates exemplarily the typical ingredient inventory identification and organization structure of the present invention of the CCOS 1.

FIG. 57 illustrates exemplarily the typical intelligent service mat (ISM) of the present invention of the CCOS 1.

DETAILED DESCRIPTION

5 Some portions of the description which follows are explicitly or implicitly presented in terms of algorithms and functional or symbolic representations of operations on data within a computer memory. These algorithmic descriptions and functional or symbolic representations are the means used by those skilled in the data processing arts to convey most effectively the substance of their work to others skilled in the art. An algorithm is here, and generally, conceived to be a self-consistent sequence of steps leading to a desired result. The steps are
10 those requiring physical manipulations of physical quantities, such as electrical, magnetic or optical signals capable of being stored, transferred, combined, compared, and otherwise manipulated.

15 Unless specifically stated otherwise, and as apparent from the following, it will be appreciated that throughout the present specification, discussions utilizing terms such as “transmitting”, “receiving”, “scanning”, “calculating”, “determining”, “replacing”, “generating”, “initializing”, “outputting”, or the like, refer to the action and processes of a computer system, or similar electronic device, that manipulates and transforms data represented as physical quantities within the computer system into other data similarly represented as physical quantities within
20 the computer system or other information storage, transmission or display devices.

The present specification also discloses apparatus for performing the operations of the methods. Such apparatus may be specially constructed for the required purposes, or may comprise a computer or other device selectively activated or reconfigured by a computer
25 program stored in the computer. The algorithms and displays presented herein are not inherently related to any particular computer or other apparatus. Various machines may be used with programs in accordance with the teachings herein. Alternatively, the construction of more specialized apparatus to perform the required method steps may be appropriate.

30 In addition, the present specification also implicitly discloses a computer program, in that it would be apparent to the person skilled in the art that the individual steps of the method described herein may be put into effect by computer code. The computer program is not intended to be limited to any particular programming language and implementation thereof. It will be appreciated that a variety of programming languages and coding thereof may be used
35 to implement the teachings of the disclosure contained herein. Moreover, the computer program is not intended to be limited to any particular control flow. There are many other variants of the computer program, which can use different control flows without departing from the spirit or scope of the invention.

40 Furthermore, one or more of the steps of the computer program may be performed in parallel rather than sequentially. Such a computer program may be stored on any computer readable medium. The computer readable medium may include storage devices such as magnetic or optical disks, memory chips, or other storage devices suitable for interfacing with a computer. The computer readable medium may also include a hard-wired medium such as exemplified in
45 the Internet system, or wireless medium such as exemplified in the GSM mobile telephone system. The computer program when loaded and executed on such a computer effectively results in an apparatus that implements the steps of the preferred method.

FIG. 01

Referring now to **FIG 01**, there is illustrated a case example of the system network infrastructure diagram of the present invention of a cloud based customizable centralized operating solution (CCOS) **1** that comprises of a central server module and a plurality of customizable independent interlinked interexchangable high and low level modules, allowing for communicating and interfacing to exchange and communicate a plurality of data collectively or independently applying modular programming, illustrated exemplarily under **FIG. 47**. The CCOS **1** links, communicates, exchanges a plurality of data and information wireless throughout its customizable system network infrastructure, involving a plurality of different types, shapes, and sizes of provided touch screen or projected touch sensitive service staff user device interfaces **SUDIs**, illustrated exemplarily as **2, 3, 6, 7, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29**, mobile restaurant user device interfaces **MRUDIs**, illustrated exemplarily as **8**, stationary restaurant user device interfaces **SRUDIs**, illustrated exemplarily as **9**, third party owned user device interfaces **TPUDIs**, illustrated exemplarily as **30, 31, 32, 33, 34, 35, 36, 40**, third party links **TPL**, illustrated exemplarily as **37, 38, 39**, and a plurality of personal user device interfaces **PUDIs**, illustrated exemplarily as **42**. A plurality of different types of apparatuses and devices **43** inclusive of a plurality of different types of NFCs/RFIDs **44** and **45**, are also provided and when illustrated linked to the provided plurality of user device interfaces. The cloud based CCOS **1** links, communicates, exchanges a plurality of data and information wireless with the plurality of user device interfaces through the world wide web, commonly referred to as the internet with a plurality of local routers and management network switches and/or servers **RMNSs**, illustrated exemplarily as **41**, and executes said links, communications, exchanges of a plurality of data and information through a plurality of customizable independent interexchangable and interconnected modular modules, illustrated exemplarily under **FIG. 46**, that accept inputs from a plurality of user device interfaces, apparatuses and devices relating to customized operations associated with a user, wherein a central server module is configured to generate corresponding outputs based on the accepted inputs and transmits each output to a relevant customizable independent interexchangable and interconnected modular modules for execution of the output that is transmitted to its intended designated user device interfaces and/or module. The illustrated case example of the CCOS **1** system network infrastructure is not intended to suggest any limitation with regards to the plurality of scopes of design, use, tasks, functions, processes, application, and versatility of interconnected operational functionality of the present invention, and illustrates a typical setup for a multi segment restaurant operation. In operation, the head office **2** controls and manages the entire system network infrastructure of the CCOS **1**, through the management execution module of the CCOS **1** allowing for the delegation of a plurality of operational and management control to subsidiaries, representative, branch offices **3**, and participating restaurants **4**, illustrated exemplarily for a single participating restaurant under **FIG. 02**, whereby the head office **2** can intervene remotely into any aspect of daily operations in real-time. A participating restaurant can be a single or multi segment restaurant **4** and can involve a simple or a complex front of house **5** and back of house **14** operation. A multi segment restaurant is illustrated exemplarily under **FIG 03**. In operation, the head office **2** manages and controls the plurality of authorization and access levels, sources, data organization, and business structure including databases, data management, data creation, customization, and implementation of computing, auto calculation, algorithms, entry and extraction rules and processes. The CCOS **1** also includes and provides for a plurality standard and customized hardware comprising of a

plurality of different apparatuses and devices **43** including a plurality of customizable and programmable different types of NFC/RFID devices **44** and **45**. The said NFC/RFIDs **44** and **45** communicates wireless with the CCOS **1** through a local RMNS **41** including a plurality of SUDIs, MRUDIs, and SRUDIs facilitating the interrogation protocols, and responding, transmitting, receiving, and processing a plurality of data and information, which includes but is not limited to the proper use and authorized movement of a plurality of MRUDIs **8**, SRUDIs **9**, and PUDIs **42** within a participating restaurant **4** envelope. In operation, the plurality of customizable and programmable different types of NFC/RFID tags and devices, illustrated exemplarily as **44** and **45** are also used to pair a plurality of MRUDIs **8**, SRUDIs **9**, SUDIs **9**, and PUDIs **42** and other devices with the CCOS **1** through a local RMNS **41**, and to track all food and other inventory items from the point of delivery, through various stages of use and/or customer services, to the point of disposal including post plate food waste **46**, and provide a unique member services taking pictures of customized and created menu items at particular stations, illustrated exemplarily under **FIG. 05** and **FIG. 56**. In operation, the customizable and programmable NFC/RFID tags and devices **44** and **45** are also used to track the movement of all relevant tableware within a participating restaurant envelope, allowing comprehensive tableware inventory management and requirements, and to assess services and service staff performances, illustrated exemplarily under **FIG. 05**. Certain types of NFC/RFID tags and devices **44** and **45** are also used to manage service staff login/logout **47** and related data. In operation in the illustrated case example of a floor plan example, illustrated exemplarily under **FIG 03**, the front of house **5** operation includes a plurality of provided service counter SUDIs **6**. A plurality of handheld service staff SUDIs **7** are also provided and linked and communicate the CCOS **1** through a local RMNS **41**. There are also a service counter station SUDI **6** and a plurality of provided cashier stations **10** at the bar segment SUDIs **11**, the fast food counter station SUDIs **12**, and at the café and bakery station SUDIs **13**. For the back of house **14** operation, a manager SUDI **15** and chef office SUDI **16** are provided and linked and communicate with the CCOS **1** through a local RMNS **41**, allowing for real-time access and management to all relevant back of house SUDIs, illustrated exemplarily as **11, 12, 13, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29**, and front of house **5** SUDIs **6, 7, 10, 11, 12, 13**. A provided waste management station SUDI **17**, and a plurality of preparation and portioning station SUDIs **18** and pre-cooking station SUDIs **19**, and a plurality of other provided non-specified SUDIs **20** for replacement and flexible use are also provided and are linked and communicate with the CCOS **1** through a local RMNS **41**. There are also a plurality of provided storage management SUDIs **21, 22, 23, 24**, a SUDI **25** at the pot and dishwashing station, a chef station SUDI **26**, a plurality of provided restaurant line cook station SUDIs **27**, a plurality of provided Teppanyaki line cook station SUDIs **28**, and a plurality of provided bakery station SUDIs **29**. All are linked and communicate with the CCOS **1** through a local RMNS **41**. The screen displays for the head office **2**, the subsidiary, representative or branch office **3**, front of house **5** and back of house **14** service staff SUIDs **6, 7, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29** are specifically designed in layout, function, and purpose, to allow for a plurality of operations. The screen displays for a plurality of MRUDIs **8** and SRUDIs **9** are also specifically designed in layout, function, and purpose to allow for a particular operation, and the screen displays for a plurality of TPUDIs **30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40** are also specifically designed in layout, function, and purpose to allow particular operation. The plurality of provided different types of apparatuses and devices **43, 44, 45** are specifically customized and programmed to allow each user to accomplish a

plurality of tasks and functions within the front of house **5** and back of house **14** operations of a participating restaurants **4**.

FIG. 02

Referring now to **FIG 02**, there is illustrated a system network infrastructure diagram of the cloud based CCOS **1**, involving exemplarily a single participating restaurant **71**. In operation, the head office **48** and/or a branch office **49** communicates wireless through the internet and the local RMNS **75**, going first through a login protocol **50** and **51** on their respective SUDIs, illustrated exemplarily as **52** and **53**, whereby third party product and service provider TPUDIs, illustrated exemplarily as **54**, **55**, **56** communicate with the CCOS **1** through a designated third party services module **57** to customize and execute supplies and services for a plurality of participating restaurants using the online service of the CCOS **1**, illustrated exemplarily under **FIG. 53**. In the shown example for a single restaurant **71**, third party product and service providers, using their own TPUDIs **54**, **55**, **56**, can login **58**, **59**, **60** to a third party services module **57**, using the head office **48** provided access protocol that identifies each particular third party product and service provider. A third party product and service provider head office **4**, its branch office **51**, or warehouse can work on the same particular third party services module platform **54** simultaneously to review, prepare, and execute a plurality of online provided e-documentation relevant to the supply of products and services, illustrated exemplarily under **FIG. 53**, regardless if a third party product and service provider **55**, **56**, **57** and/or their respective service operations are located within a single demographic location **61** or situated within a plurality of demographic locations, illustrated exemplarily as **62**, **63**, **64**. In operation for the exemplarily single participating restaurant **71**, private **65** and corporate **66** members **67** and their sub-member **68** users **59**, and non-member **70** users **69** can use within a participating restaurant **71** either the provided SRUDIs **85** and MRUDIs **86**, or member **68** and non-member **70** users **59** can use their personal PUDIs **72** and login remotely **73** into the CCOS **1** to reach the startup screen, illustrated exemplarily under **FIG. 07**, and landing screen, illustrated exemplarily under **FIG 09**. In operation a participating restaurant **71** in linked **74** to the CCOS **1** through a local RMNS **75** that includes a local backup server to provide uninterrupted services for the back of house **76** and front of house **81** operation, whereby the RMNS **75** communicates wirelessly with a plurality of SUDIs inclusive of a plurality of apparatuses and customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices situated or move throughout the back of the house **76**, illustrated exemplarily as the SDUI for chef and manager **77**, a plurality of service station SUDIs **78**, a SUDI for the 24 hour dispenser **79**, a plurality of SUDIs for a plurality of working stations and storage stations, and plurality of sensor service mats **80**. For the front of house operation **81**, the RMNS **75** communicates wirelessly with a plurality of handheld service staff SUDIs **82**, a plurality of mobile service staff station SUDIs **83**, a plurality of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices **84** on the customer side of the 24 hour dispenser, a plurality of stationary SRUDIs **85**, and a plurality of MRUDIs **86** at a plurality of customer tables **87** and counter positions **88** with integrated customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices **89**, illustrated exemplarily under **FIG. 04** and **FIG. 05** that provide members **67** users **69** the option to login **90** using their PUDIs **91** at a plurality of customer tables **87** and counter positions **88** within a participating restaurant **71**, allowing members **67** users **69** the use of their PUDIs **91** in the same way a restaurant provided MRUDIs **86** is used. Members **67** users **69** can also use their plurality of PUDIs **91** and to login **92** at the 24 hour dispenser **84** and

login **93** at RUDI stations **85**. Non-member **70** users **69** can use their plurality of PUDIs **94** to login **95** at the 24 hour dispenser **84**, login **96** at RUDI stations **85**, and login **97** at customer tables **87** and counter positions **88** during promotional marketing drives. In operation a plurality of tablewares **98** have affixed to them customizable and programmable waterproof and 95° Celsius heat resistant NFCs/RFIDs devices **99** that allow for the tracking and circulation monitoring of said tablewares **98** within the back of house **76** and front of house **81** of a participating restaurant **71**, which includes the tracking and monitoring of staff services, illustrated exemplarily under **FIG. 05**. In operation, throughout the back of the house **76** and front of the house **81** envelope, all inventory items, all ingredients are transported and/or stored in various types and sizes and multi-colored crates, trays, and vessels that have affixed to them customizable and programmable waterproof and -20°/+95° Celsius cold/heat resistant NFCs/RFIDs devices **100** that allows for uninterrupted tracking and monitoring of individual crates, trays, and vessel through a plurality of handling, processing, waste management stages, illustrated exemplarily, for a receiving station **101**, a plurality of processing and preparation stations **102**, a plurality of storage units **103**, a plurality of pre-cooking stations **104**, a bakery and café station **105**, a plurality of back of house frontline cooking stations **106**, including a plurality of semi-front of house cooking stations **107**, a dishwashing station, and a food waste storage prior disposal **109**. In operation in the shown case example of the present invention of the CCOS **1** for a single participating restaurant, there are also a plurality of security cameras and visual security devices **110** that are connected and in communication with the CCOS **1** through a local RMNS **75**.

FIG. 03

Referring now to **FIG 03**, there is illustrated a case example of a multi segment restaurant floor plan comprising of a back of the house **111** and front of the house **112** operation. Illustrated within the front of the house **112** is a restaurant and bar segment **113** and a café and fast food segment **114**. The shown enlarged seating group of a typical four-seater customer table illustrates that each customer seat position allows for a provided MRUDIs **115** that can be stored within a storage compartment at a customer position without the need of a connecting security wire. The plurality of MRUDIs **115** communicate wirelessly with a front of house module within the CCOS **1** through a local RMNS **116** that communicates with a plurality of sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices **117**, each programmed and customized to identify a particular customer seat position, illustrated exemplarily under **FIG. 04**, allowing authorized member users to link and use their PUDIs **118** in the same way the restaurant provided MRUDIs **115** can be used and function. Embedded at a plurality of individual and sets of customer positions are electronic alphanumeric displays **119** that communicate wirelessly with the front of house module within the CCOS **1** through a local RMNS **116** and with the service stations **120** SUDIs **121**, through which the electronic alphanumeric displays **119** can be manage for reservations and a plurality of other services can be communicated. In operation the front of the house **112** service operation is managed by the service staff at the service station **120** SUDI **121**, illustrated exemplarily under **FIG. 44** and **45** allowing for a plurality of operational floor management tasks and function to be managed and designated involving a plurality of service and counter station, including handheld SUDIs, illustrated exemplarily as **122, 123, 124, 125, 135, 136**, which also involves a plurality of cashier functions. In operation, the CCOS **1** also allows the pairing of provided SRUDIs **126** within the front of house **112**, illustrated exemplarily within the café' and fast food segment **114**. The said provided SRUDIs **126**

communicate wireless with the front of house module within the CCOS 1 through a local RMNS 116. There are also a plurality of provided sets of intelligent sensor service mats ISMs within the front of house 112 and back of house 111 that include sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices and autofocus photo cameras 127, illustrated exemplarily under FIG. 05 and FIG. 56. Within the front of the house 112 and the back of the house 111, there are also a plurality of automated provided MRUDI 115 charging stations, illustrated exemplarily as 128. Said charging stations 128 are also equipped with sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices that communicate a plurality of data related to the MRUDI 115 and charging cost to the front of house module within the CCOS 1 through a local RMNS 116. Within the café' & bakery segment 123 is a mini-bakery 129 and a coffee roasting station 130, with a plurality of working stations SUDIs 131 and a storage 132 SUDI 133 that communicate wireless with the bakery module within the CCOS 1 through a local RMNS 116. Within the front of the house 112, there is also a fast food segment 134 with a SUDI 135 and a plurality of ISMs 127. There is also a 24 hour dispenser unit, comprising of individual temperature and environmental controlled service compartments, each compartment equipped with sets of customizable and programmable waterproof and -20°/+95° Celsius cold/heat resistant NFCs/RFIDs devices that monitors and controls temperature and environment by way of wireless communication with the fast food module within the CCOS 1 through a local RMNS 116. The 24 hour dispenser can be serviced from the inside 137 of the fast food segment 134, and collection is from the outside 138 through the use of member and non-member users PUDIs 118 that communicates wireless with the relevant sets of customizable and programmable waterproof and -20°/+95° Celsius cold/heat resistant NFCs/RFIDs devices to collect ready menu items. In operation within the back of the house 111, there is a preparation and portioning segment 139 with a plurality of SUDIs 140, illustrated exemplarily under FIG. 39 equipped with a plurality of apparatuses and sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices and cameras 159 for monitoring. Each working station SUDI 140 allows for the recording and monitor of processed and portioned ingredient inventory, and the comprehensive recording of product yield and pre-plate waste, water, electricity and a plurality of other data that is communicated wireless to the back of house module within the CCOS 1 through a local RMNS 116. The screen displays for this stations 140 are customized to allow the display of a plurality of detailed instruction, product yield and portioning instructions, illustrated exemplarily under FIG. 39. There is also a pre-cooking segment 141 with a plurality of SUDIs 142, illustrated exemplarily under FIG. 37 equipped with a plurality of apparatuses and sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices and cameras 159 for monitoring. Each working station SUDI 142 allows for the recording and monitor of processed and pre-cooked ingredient inventory, and the recording of production, yield, and pre-plate waste, water, electricity, and a plurality of other data communicated wireless to the back of house module within the CCOS 1 through a local RMNS 116. The screen displays for this stations 142 are customized to allow the display of detailed cooking instructions, illustrated exemplarily under FIG. 37. There is also a back of house 111 restaurant and fast food and line cooking segment 143 and a front of house 112 teppanyaki line cooking segment 149 with a plurality of SUDIs 144 and 150, illustrated exemplarily under FIG. 37 equipped with a plurality of apparatuses and sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices and cameras 159. There is also a service counter 128 with a plurality of ISMs 127, illustrated

exemplarily under **FIG. 56** and a chef station SUDI **145**, illustrated exemplarily under **FIG. 36**. These SUDIs **144**, **145**, **150** including the plurality of NFCs/RFIDs communicate wireless with the back of house module within the CCOS **1** through a local RMNS **116** to communicate incoming orders, work through orders, and service orders without the need of paper chits, illustrated exemplarily under **FIG. 05** and **FIG. 38**. The chef station **145** controls and monitors a plurality of orders, cooking instructions, cooks performances, and re-direct automated orders to a particular cooking station, illustrated exemplarily under **FIG. 36**. It also allows for the recording and wireless communication of cooking station pre-plate ingredients inventory, post-plate food waste, water, electricity and a plurality of other data to the back of house module within the CCOS **1** through the RMNS **116**. In operation, there are also a plurality of multi purpose storage units within the back of the house illustrated within segment **146** and within the mini bakery **129**, with a plurality of SUDIs **147** and **133**, connected to a plurality of apparatuses and sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices and cameras **159** that allow for the recording of a plurality of data, including but not limited to inventory management, movement of inventory, waste management, temperature and environment reading, and access information, that is communicated wireless to the respective bakery and back of house module within the CCOS **1** through the RMNS **116**, involving particular ingredient inventory that is received and processed in various stages, exemplarily for prior and post preparation and portioning **140**, pre-cooking **142**, line cooking **144** front of house cooking **150** beverage inventory movement **136**, fast food ingredient and inventory movement **135**, and waste disposal **158**. It allows for comprehensive realtime data and analysis of a plurality of vital inventory movement, their storage condition and related information, including ingredient management, handling performances, electricity consumption, and a plurality of other data and information, that is communicated wireless to the back of house module within the CCOS **1** through a local RMNS **116**. In operation, there is also a pot and dishwashing segment **151** with a SUDI **152** equipped with apparatuses and sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices and cameras **159** that allows for the recording of post-plate waste, water and electricity consumption and a plurality of other data and information, that is communicate wireless to the back of house module within the CCOS **1** through a local RMNS **116**. In operation, a staff locker segment **153** with staff SUDI **154**, illustrated exemplarily under **FIG. 43** equipped with apparatuses and sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices and cameras **159** that allows for the activity for each individual staff to be wireless communicated to the back of house module within the CCOS **1** through a local RMNS **116**. There is also a manager working station SUDI **155**, illustrated exemplarily under **FIG. 32** and **FIG. 33**, and a chef working station SUDI **156**, illustrated exemplarily under **FIG. 34** and **FIG. 35** equipped with apparatuses and sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices that communicate wireless to the back of house module within the CCOS **1** through a local RMNS **116**. The local RMNS **116** can also positioned within this said area. There is also a delivery and dispatch segment **157** with a SUDI **158**, illustrated exemplarily under **FIG. 41** equipped with apparatuses and sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices that also communicate wireless with the back of house module within the CCOS **1** through a local RMNS **116**. There is also a security system complete with cameras **159** and visual **160** alarm that also communicate wireless with the back of house module within the CCOS **1** through a local RMNS **116**.

FIG. 04

Referring now to **FIG 04**, there is illustrated a case example of a typical four-seater table **161** and a related diagram, illustrating the wireless login and pairing of member users **193** PUDIs, illustrated exemplarily as **174, 175, 176, 177** and restaurant provided MRUDIs, illustrated exemplarily as **178, 179, 180, 181** with the CCOS **1** through a local RMNS **190** within a participating restaurant. The same login and pairing method applies for all customer positions within a participating restaurant. In operation every customer seat positions, illustrated exemplarily for a four-seater table **161** as **162, 163, 164, 165**, has integrated in the table **161** (or counter position) a set of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices, illustrated exemplarily as **166, 167, 168, 169** that allows for the execution of a plurality of short range plurality of communications, illustrated exemplarily as **170, 171, 172, 173**, and for wider range plurality of communications, illustrated exemplarily as **182, 183, 184, 185**, and an extended range plurality of communication, illustrated exemplarily as **186, 187, 188, 189**, through wireless communication and bluetooth technology that allow for expedient communication with the front of house module within the CCOS **1** through the RMNS **190**. One function of the NFCs/RFIDs **166, 167, 168, 169** is the close contact interrogation between PUDIs, illustrated exemplarily as PUDI **174, 175, 176, 177** and the NFCs/RFIDs **166, 167, 168, 169**, for the login and pairing. Another function is the creation and maintaining of a plurality of detection fields, illustrated exemplarily as field **182, 183, 184, 185** that recognize and communicate wireless with the unique identifiable temper-proof full duplex NFC tags, illustrated exemplarily as **178A, 179A, 180A, 181A** which are affixed to the provided MRUDIs, illustrated exemplarily as **178, 179, 180, 181**. When a MRUDIs **178, 179, 180, or 181** is taken beyond their designated detection fields **182, 183, 184, or 185**, a wireless communication exchange between the table **161** based sets of NFCs/RFIDs **166, 167, 168, or 169** and the full duplex NFC tags **178A, 179A, 180A, or 181A** takes place, resulting in a visual and sound warning, on the MRUDI **178, 179, 180, or 181**, with instructions to take the MRUDI **178, 179, 180, or 181** back into the assigned detection fields **186, 187, 188, or 189**. When the warning is ignored and the MRUDI **178, 179, 180, or 181** is taken further beyond the assigned detection field **182, 183, 184, or 185** and the NFCs/RFIDs **186, 187, 188, or 189** lose contact with the full duplex NFC tags **178A, 179A, 180A, or 181A** and an automated wireless communication is sent from the respective NFCs/RFIDs **186, 187, 188, or 189** to the CCOS **1** through a local RMNS **190** that a MRUDI **178, 179, 180, or 181** is moved beyond the permitted detection field, resulting in an automated consequential wireless communication from the CCOS **1** through a local RMNS **190** to a plurality of service staffs handheld SUDIs, illustrated under **FIG. 3/Ref 125**, alerting the staff of a detection field breach involving a particular MRUDI **178, 179, 180, or 181**. Simultaneously other visual and sound alarms within the participating restaurant are also activated. Every seat position, illustrated exemplarily for a table **161** has also an embedded electronic multi-purpose function and information display **191** that communicates wireless with the front of house module within the CCOS **1** through a local RMNS **116**. The multi-purpose function and information display **191** can be controlled by the service counter staff, illustrated under **FIG. 3/Ref 120 and 121**. In a self-serve restaurant, the multi-purpose function and information display **191** also communicates wireless with the ISMs through a local RMNS **190** with the CCOS **1**, illustrated exemplarily under **FIG. 05** to inform customers that a particular menu item can be collected. In operation the shown diagram illustrated exemplarily four-seater table **161** the sign-in and pairing process between a member users **193** PUDI **174, 175, 176 177**, and/or

the restaurant provided MRUDI **178, 179, 180, 181** with the CCOS **1** through a local RMNS **190**, which also involves the relevant set of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices **166, 167, 168, 169**. When member users **193** wish to pair a PUIDs **174, 175, 176 177** with the local network of the CCOS **1**, and use a PUIDs **174, 175, 176 177** within an participating restaurant for the purpose of using a PUIDs **174, 175, 176 177** as the restaurant menu, member users **193** activate on their PUIDs **174, 175, 176 177** the Wifi and bluetooth function **194**, and the CCOS App **195**, and place the PUIDs **174, 175, 176, 177** on the NFC/RFID identified point **166, 167, 168, 169**. Upon close contact between the member users **193** PUIDs **174, 175, 176, 177** the relevant set of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices **166, 167, 168, 169**, starts a fully automated interrogation and verification **196** process involving the activated CCOS App and includes but is not limited to the identification of the member users **193** authorization code that is embedded in the CCOS App **195**. A successful **197** interrogation **196** between a PUIDs **174, 175, 176, 177** and the sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices **166, 167, 168, 169** reveals the unique NFC/RFID position on a table **191** that is then communicated through the front of house module to the CCOS **1** through a local RMNS **190**. An automated login and pairing process results in a time limited WIFI access to the local RMNS **190** network of the CCOS **1**. Simultaneously, a plurality of automated encrypted communications **197** between the member users **193** PUID **174, 175, 176, 177** with the front of house module within the CCOS **1** through the RMNS **116**, results in a confirmative notification **202** with full access **203** to the participating restaurants local RMNS **190** network of the CCOS **1**. The startup screen **204**, illustrated exemplarily under **FIG. 07** is displayed. A unsuccessful login and pairing interrogation **196** captures the unique PUIDs **174, 175, 176, 177** identification **198** and executes an automated failure notice **199** displayed on the screen of the PUIDs **174, 175, 176, 177**. A record is established and communicated wireless to the front of house module within the CCOS **1** through a local RMNS **116**. An automated analytical match attempt is also initiated **201**. When the unique PUIDs **174, 175, 176, 177** identification is on record, and was previously validated during a member user **193** login and pairing **196**, the CCOS **1** will send an automated email and text message **200** to the member users **193** designated email address and/or SMS message, and displays on a PUID **174, 175, 176 177** a failure notice with a plurality of possible causes and solutions. When a PUID **174, 175, 176, 177** is not on record but the unique encrypted member user **193** authorization code embedded in the CCOS App **195** matches, the member user **193** is requested to execute an automated update protocol. If none of the identifications can be verified the unsuccessful attempt will be recorded and communicated wirelessly to the front of house module within the CCOS **1** through the RMNS **116**, to record and identify recurring unauthorized attempts. In the event MRUDIs **178, 179, 180 181** are already logged in and paired to a seat position, and an attempt is made to login and pair also a PUID **174, 175, 176, 177**, the CCOS **1** automatically suspends **210** the particular MRUDIs **178, 179, 180, or 181**, and automatically reactivates the suspended MRUDIs **178, 179, 180, 181** only when the said PUID **174, 175, 176, or 177** is disconnected again. This safety feature ensures that only a single user device interface is linked to a set of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices **166, 167, 168, 169**. Member users **193** who have reached the landing screen **203** can pause the use of a PUIDs **174, 175, 176 177** for short breaks when leaving the table **161**. For example a restroom break, but the connection will automatically terminate when the member user **193** leaves the long distance detection parameter **186, 187, 188, 189**. In operation,

when a service staff user **205** wish to link a restaurant provided MRUDIs, illustrated exemplarily as **178, 179, 180, 181** to a local RMNS **190** network of the CCOS **1**, the service staff **205** activates the CCOS App **195** within the administration function of the startup screen on the MRUDIs **178, 179, 180, 181** that activates automatically the WIFI and bluetooth function **194** on the MRUDIs **178, 179, 180, 181**. The service staff then places the MRUDIs **178, 179, 180, 181** on the NFCs/RFIDs identified point **166, 167, 168, 169**, and a fully automated login and pairing interrogation **196** process takes place between the sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices **166, 167, 168, 169** that communicate wireless with the front of house module within the CCOS **1** through the RMNS **116**, identifying of the unique MRUDI **178, 179, 180, 181** identification and the affixed full duplex NFC tag, illustrated exemplarily as **178A, 179A, 180A, 181A**, resulting in full WIFI access and a plurality of automated encrypted communication **197** with the front of house module within the CCOS **1** through the RMNS **116**, identifying the unique NFCs/RFIDs positions **166, 167, 168, 169** at particular seat positions. Upon successful **206** login and pairing **196**, and a successful automated encrypted communication **197**, results in a confirmative notification **202** to the MRUDIs **178, 179, 180, 181**, confirming that the MRUDIs, illustrated exemplarily as **178, 179, 180, 181** is ready for use, and the startup screen **203**, illustrated exemplarily under **FIG. 07**, is displayed. A unsuccessful **198** pairing interrogation **207** results in the display of a resolution protocol on the MRUDI **178, 179, 180, 181** and a service staff user **205** has to completed, an automated analytic **209** and a report is communicated wireless to the back of house module within the CCOS **1** through a local RMNS **116**. If a resolution cannot be achieved, the service staff user **205** changes the MRUDI. The same applies for the provided SRUDIs, illustrated under **FIG. 03**.

FIG. 05

Referring now to **FIG 05**, there is illustrated the tracking and monitoring of a plurality of different types and categories of tableware within a participating restaurant, illustrated exemplarily as a plate **211** and glass **212**, using a plurality of sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices **213** that are affixed exemplarily to plates **211** and glasses **212**. Said NFCs/RFIDs are also incorporated into plurality of different shapes, sizes, and groupings of built-in or movable ISMs, illustrated exemplarily as **215, 216, 217** are also shown, illustrated exemplarily under **FIG. 56**. Tables and counter customer positions, illustrated exemplarily as a four-seater table **218** are also equipped with a plurality of said NFCs/RFIDs **213** and **214**, which are customized and programmed to allow wireless communication with the relevant plurality of modules of the particular restaurant within the CCOS **1** through a local RMNS **116**, and include a plurality of front of house staff **219** SUDIs **220**. In operation, the tracking and monitoring starts when member **222** users **223** and non-member **224** users **223** place an order **224** for a menu item **225** within a participating restaurant, using the provided MRUDI **226** or a PUDI **227**. The CCOS **1** tracks and records the time period **228** from the moment an order is placed **229** to the moment the order instructions are displayed on the relevant staff SUDI **230**, illustrated exemplarily under **FIG 37**; the preparation and/or cooking process period **231**, until the ready menu item order is placed on a ISM **233**; the time period **234** from the moment the order is ready and is placed on a ISM **233** to the moment the notification is received on the service staff SUDI **235**; the time period **236** from the moment the service staff receives the notification on their SUDI **235** to the moment the service staff collects the order **237**; the time period **238** from the moment the service staff collects the order **237** to the moment the order was served

239; and the time period **240** between the moment the order was served **239** to the moment the table or counter position was cleared **241** and tracked at pot and dishwashing station. For participating self-serve restaurants, the CCOS **1** sends the notification to the member **222** users **223** PUDI **243**, and tracks the time period **242** from the moment the order is ready and is placed on a ISM **233** to the moment the notification is received on the member **222** users **223** PUDI **243**, and the time period from the moment the order is collected **245** to the moment the table or counter position was cleared **241**. For non-member **224** users **223**, the CCOS **1** sends the notification to the table or counter position display **247** and/or the said NFCs/RFIDs displays **214**. The tracking is executed through wireless communication with the relevant plurality of modules of the particular restaurant within the CCOS **1** through a local RMNS **116** and allows the CCOS **1** to record and analyse individual stages and individual performances in graphic and data, providing the local management, illustrated under **FIG.32**, the head office **FIG. 52**, and plurality of subsidiaries and branch offices realtime and historic information in relation to individual staff and service performances. The flow diagram and the related schematic illustrate the process and interactions between the CCOS **1**, the RMNS **221**, the exemplary table **218** based sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices **214**, the plurality of ISMs **215**, **216**, **217**, the plurality of SUDIs **220**, and the plurality of table based displays **242** and the plurality of MRUDIs **243** and PUDIs **244**. When a menu item **224** order is placed **225**, the relevant back of house screen **245**, illustrated exemplarily under **FIG. 37**, displays the menu item **224** preparation and/or cooking instruction **224** on the relevant staff screen **245**. When the menu item **224** is ready **246**, the relevant service staff, exemplarily a cooking station service staff, confirms the ready order **247** by holding a plate **211** with the affixed NFC device **213** in close proximity of the sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices **214** that is connected to the back of house screen **245**. The NFC device **213** is validated (in good order), and the sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices **214** that is connected to the back of house screen **245** interrogates and communicates wirelessly with the plates NFC device **213**, involving also the RMNS **221**, and the CCOS **1**, resulting in confirmative communication that a particular menu item **224** order **225** is now linked to a particular validated plate **211**, illustrated exemplarily under. The cooking service staff places now the menu item **224** on the plate **211** and the plate **211** on the ISM **248 (215)**, and the sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices **214** of the ISM **248 (215)** interrogates and communicates wirelessly with the plates NFC device **213** to reconfirm the order **249** on a particular ISM **248 (215)** and communicates wirelessly to the CCOS **1** via the RMNS **221**, and the CCOS **1** through a local RMNS **221** sends a wireless communication **250** to the CCOS **1** through a local RMNS **221** to a plurality of service staff SUDIs **251** that a particular order **225** of a particular menu item **224** for a particular table and seat, illustrated exemplarily as table **218** and seat **252** is ready for service at a particular ISM, illustrated exemplarily ISM **215**. Simultaneously, the CCOS **1** through a local RMNS **221** sends a notification to a plurality of service staff SUDIs **254** that an order **224**, designated for a particular table **218** and seat position **252** is ready for service. A service staff, illustrated exemplarily as **219**, confirms the notification **255**, resulting in the removal of the said notification from all other service staff SUDIs **251** that the service will be performed by the confirming service staff **219**. If the order cannot be confirmed, manual action **253** can be taken. The confirming service staff **219** collects **256** the plate **211** from the ISM **215** and delivers **257** it to the table **218** and to the seat position **252**, holding or sliding the plate in

close proximity to the embedded the NFCs/RFIDs **214**. Upon close proximity, to the embedded the said NFCs/RFIDs **214** at a tables **218** seat position **252** interrogates the plates full duplex NFC tag **213**, and communicates wirelessly to the front of house module within the CCOS **1** through the RMNS **116** that the order is fulfilled **256**. The service staff will also see said confirming communication and the service action is deleted from the SUDI **220**. In the event an order **224** is returned and or rejected **259**, the service staff **219** uses the SUDI **220**, and selects one of a plurality of options linked to the earlier notification **254** on the SUDI **220** to select from a plurality of option the reason for the return of the order **224**, and returns the plate **211** to the service counter for further action that is also communicated wirelessly to the front of house module within the CCOS **1** through a local RMNS **116**. For self-serve restaurants, the CCOS **1** through a local RMNS **221** send a notification **260** to the said relevant NFCs/RFIDs **214** of seat **252** and/or to a particular MRUDI **243** or PUDI **244** from which the menu item **225** order **224** was placed. The member **222** user **223** or non-member **224** user **223** can now collect **261** the order from the relevant ISM, illustrated exemplarily as ISM **215**. In the event an order **224** is rejected and/or returned **259** by a member **222** user **223** or non-member **224** user **223**, the service counter staff uses the ISM **215**, and selects one of a plurality of options on the ISM **215** to specify the return of the order **224**, and returns the plate **211** to the relevant service station for further action. The CCOS **1** records such action.

FIG. 06

Referring now to **FIG. 6** there is illustrated a diagram that illustrates the versatility of the present invention of the CCOS **1**. Private **262** and corporate **263** member **264** users **265** and their respective sub-members **266** users **265**, and non-member **267** users **265** can use a PUDIs **268** to place orders of standard menu items remotely from home **269**, at work **270**, or on the go **271** when accessing the startup and landing screen **272**. Non-member **267** users **265**, illustrated exemplarily as **273** can proceed with all available non-member **273** services, including selecting and placing orders **276** for standard menu items, illustrated exemplarily under **FIG. 10** at a local participating restaurant, illustrated exemplarily as **274**, whereby only standard limited health and wellness customization functions **277**, illustrated exemplarily under **FIG. 13** are available to non-member **267** users **265**. Member **264** users **265**, illustrated exemplarily as **275** can proceed selecting standard menu items, customizing said menu items, and creating menu items from scratch **276**, illustrated exemplarily under **FIG. 13**, drawing from personalized and customized health and wellness and budget settings **277** and established diet and budget plans **278**, illustrated exemplarily under **FIG. 16, 17, 18, 19, 20, 21**; and order said customized and created menu items **276** at a local participating restaurant, illustrated exemplarily as restaurant **1 274**, or save a plurality of said standard, customized, and created menu items **276** in a personal menu **279** for later ordering, when visiting other participating restaurants **280** in a plurality of other districts, cities, countries etc., illustrated exemplarily as **281**, using the provided MRUDI or SRUDI, illustrated exemplarily as **282**, or own PUDI **283** to place an order in the said other participating restaurant **280**. The CCOS **1** also allows for integration into a plurality of food and beverage settings including hotel restaurants and chain restaurants **284** in a plurality of districts, cities, countries etc., illustrated exemplarily as **281**, allowing member **264** users **265** to use a PUDIs **285**, or use the provided MRUDI and SRUDI **286** to place their order, including possible further customization.

FIG. 07

Referring to **FIG. 07**, illustrating exemplarily a startup screen **287** that provide private **288** and corporate **289** member **290** users **291** and their respective sub-members **292** users **291**, and non-member **293** users **291** the entrance to receive access to the CCOS **1**, and in particular to the landing screen, exemplarily illustrated under **FIG. 09**. In operation, the participating restaurant provided MRUDIs and SRUDIs are on energy saving mode, and display only a customizable logo. The illustrated exemplary startup screen **287** only activates upon a member **290** user **291** and non-member **293** user **291** interacting with the screen by touch or other means of interaction. The startup screen **287**, when activated, identifies the CCOS **1** brand by name and logo **294**, and allows for the display of the plurality of selectable names of the relevant participating restaurant **295** that can be scrolled through and selected. A fixed participating restaurant name is displayed when member **290** users **291** and non-member **293** user **291** use a provided SRUDI or MRUDI, or when member **290** users **291** use a **PUDIs** within a participating restaurant envelope at any NFC/RFID position, illustrated exemplarily under **FIG. 04** and **FIG. 05**. The same screen display including the display of the plurality of selectable names of the relevant participating restaurant **295** procedure applies when member **290** users **291** and non-member users **293** use **PUDIs** with the intent to login and/or receive access through the internet from remote location. In operation, the help function **296** provides member **290** users **291** and non-member users **293** assistance in text form in the vertical scrollable field **297**, structured in form of icon menu headings that mirrors the icons on the startup screen **287** for the plurality of available functions, illustrated exemplarily as **294**, **295**, **296**, **297**, **298**, **299**, **300**, **301**, **302**, **303**, **304**, **305**, **306**. In operation within a participating restaurant envelope, the call for service function **298** is linked to the handheld SUDIs of the service staff, exemplarily illustrated under **FIG. 08/Ref 327**, resulting also, upon activation, of wireless communication with the front of house module within the CCOS **1** through a local RMNS **116** to direct the service staff to the relevant seat position. In operation, the introduction video function tab **299** provides unfamiliar member **290** users **291** and non-member users **293** a short introduction video within field **297**. The activation of the introduction video function and its evaluation by all users is designed to improve services. In operation, the member login gateway **300** triggers a popup window that allows member **290** users **291** to login **300**. Non-member **293** users **291** are considered guests **301** and do not require login. When non-members **293** users **291** select the guest function **301**, guests will be reminded of the advantages of a membership. In operation, non-member **293** users **291** have the possibility to complete the member application **302**, illustrated exemplarily under **FIG. 08/Ref: 363**. In operation, the CCOS **1** provides for two language select option, **303** and **304**. Member **290** users **291** and non-member **293** users **291** have the option to select a plurality of preferred languages for the entertainment options **303**, and select the preferred language for the menu operation **304**. In operation, the CCOS **1** provides for families with children the option for parents to keep the children entertained while concentrating on the selection of menu items. Parents can use for the entertainment function **305** and the parent setting function, exemplarily illustrated under **FIG. 08/Ref 344**. In operation, the administration function **306** is for service staff use only. It is used for the login and pairing of MRUDIs and SURDIs, exemplarily illustrated under **FIG. 04**, and for service related troubleshooting.

FIG. 08

Referring now to **FIG. 8** there is illustrated a diagram in relation to the startup screen **313**, illustrated exemplarily under **FIG. 07** that leads to the landing screen **314**, illustrated exemplarily under **FIG. 09**. Private **307** and corporate **308** member **307** users **310** and their respective sub-members **311** can use, within a participating restaurant envelope **315**, the provided SRUDIs **316** and MRUDIs **317**, and own PUDIs **318**. Non-members **312** users **310**, can only use the provided SRUDIs **316** and MRUDIs **317**. Member **307** users **310** can also access the startup screen **313** remotely, illustrated exemplarily as **319**, using PUDIs **318**. In operation the startup screen **313** automatically uses the pre-set primary language for menu operation and entertainment that is set for a particular participating restaurant **320**, or the language a member **307** users **310** has selected for menu operations and entertainment **321** under the personal account setting **322**. A member **307** users **310** has the option to change the pre-set primary language setting, and opt ad-hoc for any other available language **323**. The CCOS **1** will then use the add-hoc setting for the current login session only. A member **307** users **310** can independent set ad-hoc languages for the entertainment options **324**. Non-member **312** users **310** can only use the pre-set primary language **320**, or select from a range of languages for the menu operation only. The CCOS **1** filters out any non-selected language for menu and entertainment operation. In operation, the startup screen **313** allows a member **307** users **310** and a non-member **312** users **310** to call for service **325** within a restaurant envelope **315**. The call for service **325** function communicates the request wirelessly to the front of house module within the CCOS **1** through a local RMNS **326** notifying the service staff's SUDIs **327** that service is required, identifying the specific table and/or counter seat position, and a unique service reference code for CCOS **1** service performance tracking. If a member **307** users **310** uses a PUDI **318** within a restaurant envelope, the attention notification includes the reference that a PUDI **318** was used. Upon arrival on the table or counter seat position that called for service, the service staff registers the arrival at the table based NFCs/RFIDs devices, that communicate wirelessly to the front of house module within the CCOS **1** through the RMNS **116** the response time. Individual service staff performances can be reviewed in real time and in detail on the managers and chefs SUDI, illustrated exemplarily under **FIG. 32, 33, 34** and **35**. There is also a help **328** function that embraces all relevant help subjects relevant for the startup screen **310**. The administration **329** function is for service staff use only **330**. It allows service staff to login and pair **331** SRUDI **316** or MRUDI **317** with a local RMNS **326** and the CCOS **1**, illustrated exemplarily under **FIG. 05**, and execute a plurality of diagnostics functions and processes that are communicated wirelessly to the front of house module within the CCOS **1** through the RMNS **326**. It also allows the service staff to register their handheld SUDIs **327** as temporary user, and assist the member **307** users **310** and non-members **312** users **310** for a plurality of menu operation, including the placement of orders that need to be confirmed by the member **307** users **310** and non-members **312** users **310**. When registering as a temporary user, the service staff SUDI **327** communicate wirelessly with the front of house module within the CCOS **1** through a local RMNS **116**, capturing and analysing the data that can be used to improve services and menu operation. In operation, the startup screen has an entertainment option panel **332**. When activated on the startup screen, it displays a plurality of entertainment options **333** in word supported by icon symbols, and includes an introduction video **337**, shown in the center of the screen, illustrated exemplarily under **FIG. 07/Ref: 297**, educating about the services, functions and advantages when using the interactive menu, and the advantages of a

membership. There are also a plurality of age group classified health and wellness related educational games **335** that teaches children and adults in a play-and-fun kind of way the importance of eating and living healthy. There are also a plurality of health and wellness related news **336** related to health and wellness, including products and advertisements of products and services with links to the respective product and service providers. There are also health and wellness related educational documentaries **337** comprising of a plurality of discoveries, health and wellness science, and personal experiences. There are also health and wellness related light entertainment **338** comprising of a plurality of light health and wellness entertainment programs. There is also a healthy living **339** options that provide information of healthy living at home and while working, including advertisements from a plurality of health and wellness professionals and links to such professionals. There is also a sport and health option **340** providing information and education in the relation to sports and healthy living, including a plurality of exercise and weight related information and advertisements of related services provided by professionals with links to such professionals. There are also a plurality of loyalty products and services **341** provided by third parties and embraced by the member loyalty program and links to the interactive loyalty program member menu, addressed under **FIG. 09**. The entertainment options **333** are linked and communicate wirelessly with the entertainment module within the CCOS **1** through a local RMNS **116** for the retrieval of the relevant videos and information from the video library **342**. Live streaming **343** is envisioned in future development phase that requires a plurality of licence keys **344**, and a plurality of interfaces with a plurality of third parties **345**. The entertainment option **332** allows a parent setting **346**, providing a parent the means and methods to set limit or prevent the access to particular entertainment options for a child. A parent can select a single or plurality of main category **347** from a plurality of main categories, set the age group **348**, select a special interest **349** or plurality of interests **350**, illustrated exemplarily for a plurality of options as a sport and health **351**, with subcategories soccer **352** including health products **353**, illustrated exemplarily involving fruit and vitamin drinks **354** that a member **307** users **310** can order by selecting the respective link to the menu item **355**, or customize using the menu options **356**, and save and include in the personal menu **357**. As for the soccer sub-category **352**, a member **307** users **310**, can use the loyalty point **358** to buy a products, which can include soccer tickets. The entertainment option also allows the use of earphones **359** that can be obtained and can only be activated by the service staff **327**. Providing earphones **359** is executed using an earphone execution protocol **360** within the administration **329** function because the loss of earphones **359** is chargeable. In operation, member **307** users **310** login **361** to receive access to the landing screen **314**, non-members **312** users **310** receive access as guests **362**, but the startup screen **313** allows a Non-member **312** users **310** to apply via e-form **363** for membership. Submission **364** and verification **365** by way of wireless communication the membership module within the CCOS **1** through a local RMNS **326** is instantaneous. A successful **366** application results in an auto generation of an encrypted member code **367**, and invitation **368** to the applicants designated PUDI **369** to completion of membership registration **370**, illustrated exemplarily under **FIG. 15**. Unsuccessful applications result in an autogeneration of a rejection message **371** communicated wireless to the non-member **312** users **310** designated SUDI **372**, with option to re-apply **373**.

FIG. 09

Referring now to **FIG. 09** illustrating exemplarily the interactive landing screen **374** of the CCOS **1**. In operation private **375** and corporate **376** member **378** users **377** and their respective sub-members **379** users **378**, and their non-member **380** users **378** reach the landing screen **374** after passing through the startup screen, illustrated exemplarily under **FIG. 07**. The outer line segments illustrate a plurality of key segments comprising of a member panel segment **381**, a central segment **382**, a health and wellness segment **383**, a cuisine and key ingredient customization segment **384**, an ingredient exchange option customization segment **385**, an interactive display and menu field segment **386**, and a standard menu option segment **387**. Within the fixed **388** and horizontal scrollable **389** segments of the member panel segment **381** is the member menu function tab **390**. When a member **377** user **378** selects the member menu function tab **390** within a participating restaurant envelope, it results in the display of the standard menu and a plurality of established personal member menus in the vertical scrollable **391** field **F-2** that allows expansion to include also field **F-3**. The respective menus are illustrated exemplarily under **FIG. 10**. Within the horizontal scrollable segment **389** are a plurality of function tabs, comprising of a loyalty program function tab **392**, illustrated exemplarily under **FIG. 11**, a loyalty service function tab **393** and a loyalty products function tab **394**, illustrated exemplarily under **FIG. 12**, a create my own function tab **395**, illustrated exemplarily under **FIG. 13**, a member communication function tab **396**, illustrated exemplarily under **FIG. 14**, a my account function tab **397**, illustrated exemplarily under **FIG. 15**, a help function tab, illustrated exemplarily under **FIG. 22**, and a share function tab **399**, illustrated exemplarily under **FIG. 23**. Although only the aforementioned function tabs are shown within the member segment panel **381**, additional customizable function tabs can be added **400**, including a home cooking function tab **401**, illustrated exemplarily under **FIG. 54** that allows member **360** users **378** to cook ready portioned menu items received and/or collected from a participating restaurant, using the same screen display as the frontline cook, illustrated under **FIG. 37**. Within the fixed segment **402** under the central segment **382** is an administration function tab **403** that changes its color. Red conveys a SRUDI **404**, a MRUDI **405** or PUDI **406** is not paired. Green conveys a SRUDI **404**, a MRUDI **405** or PUDI **406** is successfully paired. Blue conveys a faulty SRUDI **404**, a MRUDI **405** or PUDI **406**. It allows the service staff and the SRUDI **404**, a MRUDI **405** or PUDI **406** users **378** visual understanding of the current status including the relevant table and seat identification **407**. There is also a general help function tab **408**. When selected generates an expandable vertical scrollable help menu in field **F-3**. It allows the users **361** to employ the help function at any time and receive step by step guidance for all functions available on a landing screen **374**. There is also an interactive logo function tab **409**, when selected, results in the display of an interactive pop-up window showing all linked participating restaurants. There is also a search function **410** that allows for a plurality of searches that embraces all elements and functions accessible to member **378** users **377** and non-member **380** users **378**. There is also a call for service function tab **411** that is linked to a plurality of service staff SUDIs, illustrated exemplarily under **FIG. 03**, **FIG. 05** and **FIG. 08**. There are also a plurality of triple use function tabs **412**, **413**, **414**. Selecting the centre of a shortlist function tab **412** results in the shortlisting a currently displayed menu item in field **F-6**. The shortlist is displayed in field **F-3**. Selecting the view function tab **415** displays the plurality of shortlisted menu items in field **F-2** for selection. Selecting the clear function tab **416** clears the shortlisted menu items. The number of currently menu items shortlisted are also displayed a number **417**. Member **378**

users **377** and non-member **380** users **378** can use the diners function tab **413** to invite a plurality of diners by using the add function tab **418**, and use the clear function tab **419** to remove diners from the diners list. The number of current diners are displayed as a number **420**. Adding diners can also be executed by way of an interactive popup window **421** that emerges when the diners function tab **413** is selected. The interactive popup window **421** shows the relevant seating and/or table arrangement, and identifies the table and seat numbers, illustrated exemplarily for a four-seater table **422** with four seats **423**, **424**, **425**, **426**. Selecting a seat is confirmed by a mark, and de-selecting a seat removes the mark, whereby, illustrated exemplarily, the inviting seat **427** shows a different mark from the invited seats **428**. Selecting the view order function tab **429** results in the emerging of a popup window reflecting the detailed order. The total amount is also shown **430**, and allows the member **378** users **377** and non-member **380** users **378** to place the order **431** without seeing the detailed order. Selecting the pay function tab **432** allows member **377** users **376** to execute a autopay function, illustrated exemplarily under **FIG. 15/871** Within the horizontal scrollable segment **433** under the health and wellness segment **383** are a plurality of health related function tabs, calories **434**, nutrition **435**, portioning **436**, diabetic **437**, budget **439**, allergy **440**. Each of these function tabs can be activated and de-activate separately or jointly to apply the auto customization of menu items based on a member **307** users **310** pre-setting and saved plans under the kcal and nutrition function, illustrated exemplarily under **FIG. 17**, a portioning function, illustrated exemplarily under **FIG. 18**, a diabetic function, illustrated exemplarily under **FIG. 19**, a budget function, illustrated exemplarily under **FIG. 20**, and an allergy function, illustrated exemplarily under **FIG. 21**. Non-member **380** users **378** can only use the standard functions that are available by way of a popup window for each of the said function tabs **434**, **435**, **436**, **437**, **439**, **440**. The currency select and exchange function tab **438**, generates a popup window from which a currency can be selected, resulting in the auto-conversion of the current amount **430** within the function tab **429**, and the amount shown in the detailed bill into the selected currency. The help function tab **441** offers assistance for the health and wellness panel segment **383**, following the same principal arrangement illustrated exemplarily under **FIG. 22**. Additional functions are not visible, but are illustrated for coffee roasting **442**, that allows member **377** users **378** to customize their coffee roasting order to meet personal health and wellness requirements. The glutenfree function tab **443** allows member **377** users **378** and non-member **380** users **378** to exclude menu items in line with a gluten free diet. The thumbs up **444** and thumbs down **445** function tabs allow member **307** users **310** and non-member **380** users **378** to vote for menu items listed by member **377** users **378** for competitions under other cuisine options **456**. Within the fixed and vertical scrollable segment **446/447** under the health and wellness segment **383** is a cuisine option function tab **448** and key ingredient option function tab **449** that allows further additions. Both function tabs can be applied independently or jointly. When the cuisine option function tab **448** is selected, the vertical scrollable segment **450** in field **F-9** under the cuisine, key ingredients and customization segment **384** displays a plurality of cuisine options **451**, illustrated exemplarily as a cuisine asian function tab **452**, a western function tab **453**, a fusion function tab **454**, a local delights function tab **455** a plurality of other customizable main cuisine option categories function tabs **456**, and a winners function tab **457**, which refers to menu items created and submitted for competitions by member **377** users **378**, using the create my own function **395** are illustrated exemplarily under **FIG. 13**, and using the cuisine sub-categories are also illustrated under **FIG. 13**. When the cuisine option function tab **448** is not activated, the plurality of cuisine options **451** are not visible, and the same space is available for a plurality

of other uses and applications, for example an interactive membership advertisement or a vertical scrollable list of special menu items. When the key ingredient function tab **449** is selected the vertical scrollable segment **458** in field **F-10** under the cuisine, key ingredients and customization segment **384** displays a plurality of key ingredient options **459**, illustrated exemplarily as a vegan function tab **460**, a pork function tab **461**, lamb function tab **462**, beef and veal function tab **463**, poultry function tab **464**, freshwater fish function tab **465**, seafood function tab **466**, shellfish function tab **467**, and a plurality of non-illustrated key ingredient function tabs. Using the key ingredient options **459** and sub-options are illustrated exemplarily under **FIG. 13**. When the key ingredient option function tab **459** is not activated, the plurality of key ingredient options **459** are not visible, and the same space is available for a plurality of other uses and applications, for example for advertisement or a vertical scrollable list of loyalty products and services. Within the horizontal scrollable segment **468** under the ingredient exchange and customization segment **385** in field **F-4** are a plurality of customization function and function tabs, illustrated exemplarily in more detail under **FIG. 27**. For menu items shown in the interactive menu item display field **469** in field **F-6** the display shows a plurality of horizontal scrollable **470** corresponding interactive exchangeable menu item ingredient icons, illustrated exemplarily as menu item ingredient 1 **471**, menu item ingredient 2 **472**, menu item ingredient 3 **473**, menu item ingredient 4 **474**, menu item ingredient 5 **475**, and menu item ingredient 6 **476**. There is also within a horizontal scrollable **468** segment within the vertical segment **469** a plurality of horizontal scrollable interactive and customizable main ingredient category icons, illustrated exemplarily as main ingredient category 1 **470**, main ingredient category 2 **471**, main ingredient category 3 **472**, main ingredient category 4 **473**, main ingredient category 5 **474**, main ingredient category 6 **475**, and main ingredient category 7 **476**, with relevant corresponding interactive pluralities of exchangeable sub-ingredient categories, illustrated exemplarily as sub-ingredient category A **477**, sub-ingredient category B **478**, sub-ingredient category C **479**, sub-ingredient category D **480**, sub-ingredient category E **481**, sub-ingredient category F **482**, and sub-ingredient category G **483**. Both, the main ingredient categories and sub-ingredient categories are horizontal scrollable **484** and **485**. Initially, the plurality of ingredients are not visible, and this portion of field **F-4** can be used for a plurality of other purposes. The plurality of said ingredients only emerges upon activation of the ingredient exchange or create my own function tab **486** within segment **487** and segment **488**. Within the horizontal scrollable **468** ingredient segment, is an ingredient removal and exchange field **489**. Ingredients to be removed **490** or inserted **491** must be moved manually over this field. There is also a non-preferred ingredient field **492**, a preferred ingredient field **493**, and an allergy field **494**. Exchangeable ingredients can be moved onto these fields. The purpose and the functions are illustrated exemplarily in more detail under **FIG. 27**. The vertical scrollable segment **495** in field **F-3** under the display and menu segment **368**, when not used for menu item shortlist **412**, or help **408** can also serve advertisements and a plurality of other purposes. With the vertical scrollable segment **496** under the standard menu option segment **387** provides in field **F-1** for the display of a plurality of standard menu function tabs including a triple use function tab comprising of a home function tab **497** with backward and forward function that allows the member **377** users **378** and non-member **380** users **378** to move, one step at the time, back and forward. Selecting center home field of the function tab **497**, brings the member **377** users **378** and non-member **380** users **378** back to the original display of the landing screen **374**. The daily specials function tab **498** displays in field **F-2** the daily specials, whereby for member **377** users **378**, who have customized their health and wellness functions, illustrated under **FIG. 16, 17, 18, 19, 20** and **21**, the CCOS 1 will automatically apply

said settings for the plurality of available daily specials and filter out and/or adjust the daily specials in line with said settings. When the member **377** users **378** and non-member **380** users **378** select a daily specials **498** menu item, the selected menu item in the list is highlighted, and the menu item picture is displayed in the interactive display field **F-6** with some relevant information of the selected menu item displayed in field **F-5**, and the relevant corresponding health and wellness information displayed in field **F-7**. Member **377** users **378** and non-member **380** users **378** have option to customize the display within field **F-7** using a plurality of relevant function tabs in field **F-8**, whereby non-member **380** users **378** options are limited. There is also a mealtime function tab **499** that displays in field **F-2** a plurality of mealtime categories, showing a plurality of menu items under each main mealtime category, whereby for member **377** users **378**, who have customized their health and wellness functions, illustrated under **FIG. 16, 17, 18, 19, 20** and **21**, the CCOS **1** can automatically apply said settings for the plurality of mealtime categories. When member **377** users **378** and non-member **380** users **378** select a menu item under a mealtime category **499**, the selected menu item in the list is highlighted, and the menu item picture is displayed in the interactive display field **F-6** with the relevant plurality of information of the selected menu item displayed in field **F-5**, and the relevant corresponding health and wellness information displayed in field **F-7**, with option to customize the display in field **F-7** using a plurality of relevant function tabs in field **F-8**. Member **377** users **378** have the option to fully customize a selected menu item, using the ingredient exchange function, illustrated under **FIG. 27**, and save the menu item the member **377** users **378** personal menu, illustrated exemplarily under **FIG. 10**, using all available functions available to member **377** users **378**. Non-member **365** users **361** can customize menu items with limitations. The same process and options are available for dish categories **500**. The shortcut function tab **501** is fully functional for member **377** users **378**, and with limitations for non-member **365** users **361**, illustrated exemplarily under **FIG. 28** and **FIG. 29**. The startup screen function **502** brings the member **377** users **378** and non-member **380** users **378** back to the startup screen, illustrated under **FIG. 07**. For clarity, main ingredient categories **503**, illustrated exemplarily as main ingredient category **3** **472** allow for a plurality of two sub-levels, illustrated exemplarily a sub-ingredient category **A – G** **504**. Only sub-ingredient categories **504** are exchangeable. The CCOS **1** allows for further customization to create further non-exchangeable ingredient levels as illustrated exemplarily under **FIG. 27** and **FIG. 55** illustrating the ingredient organization structure.

FIG. 10

Referring now to **FIG. 10** there is illustrated a diagram of a member **510** users **508** menu function **521** of the present invention of the CCOS **1**. In operation the member menu function tab **521** is for private **505** and corporate **506** member **507** users **508** and their respective sub-members **509** only. Non-members **510** users **508** cannot use this function. Member **507** users **508** can access the startup screen **511**, illustrated exemplarily under **FIG. 07**, within a participating restaurant envelope **512** using either the participating restaurant provided **SRUDIs** **513** and **MRUDIs** **514**, or their own **PUDIs** **515**. Member **507** users **508** can also access the startup screen **511** from remote locations **516** using a plurality of **PUDIs** **517**. To access to the landing screen **518**, illustrated exemplarily under **FIG. 09**, member **507** users **508** must login **519** to receive access. Non-members **510** users **508** are allowed as guests **520**, but can receive access during promotional marketing drives. In operation member **507** users **508** can select the member menu function tab **521** within a horizontal scrollable member panel **522**, illustrated exemplarily under **FIG. 09/Ref 389**. When member **507** users **508** have

uploaded a personal picture when providing the personal data, illustrated exemplarily under **FIG. 15/Ref 858**, the picture, illustrated exemplarily for this illustration as the picture of a mother, is shown within member menu function tab **521** for visual reference. In operation, when selecting the member menu function **521**, member **507** users **508** have a plurality of options **523**. When within a particular participating restaurant envelope **512**, member **507** users **508** see within the vertical scrollable field **F-2** a logo icons and text information of a plurality of participating restaurants, illustrated exemplarily as restaurant 1 **524**, restaurant 2 **525**, and restaurant 3 **526**, identifying the particular participating restaurant 1 **524** in first position identified by a colored frame **527**. When accessing the landing screen **518** from a remote location **516**, member **507** users **508** see within the vertical scrollable field **F-2** a plurality of participating restaurants, illustrated exemplarily as restaurant 1 **524**, restaurant 2 **525**, and restaurant 3 **526**, and member **507** users **508** can select a single participating restaurant, except when searching and planning and/or making a reservation, member **507** users **508** can select a plurality of restaurants as illustrated exemplarily under **FIG. 29**. When selecting a single restaurant the display in field **F-2** changes, and displays in field **F-2** a plurality of menu option, including the relevant applicable participating restaurant menu icon **528**, and a plurality of personal menus associated to the applicable participating restaurant, illustrated exemplarily as a fathers personal menu **529**, a mother's personal menu **530**, a son's **531**, and a daughter's personal menu **532**, with possible other personal **533** and special project **534** menus, illustrated exemplarily under **FIG. 15/Ref 879, 880 and 881**. Member **507** users **508** can either select the menu **528** of the said particular restaurant, or any of the authorized personal menus, illustrated exemplarily as personal menu **529, 530, 531, 532**, whereby the main account holder, illustrated exemplarily under **FIG. 15/580**, being the father, and/or any authorized person by the father, can access all personal menus established under the main account. For corporate **506** member **507** users **508** the authorized director, illustrated exemplarily under **FIG. 15/Ref 885** exercises the same authority as illustrated exemplarily under **FIG. 15**. When the menu logo icon of a participating restaurant is selected **528**, the display in field **F-2** changes and the participating restaurant standard menu **535** emerges in field **F-2** displaying a plurality of main menu categories, illustrated exemplarily as mealtime categories **536**, dish categories **537**, and daily specials **538** with the respective subcategories **539** under the said main menu categories, with a plurality of menu items **540** listed the respective subcategories **539** and displayed in the merged fields **F-6, F-7, F-5, and F-8**. Member **507** users **508** can select either the listed or picture menu item. When a selection is made, the merged fields **F-6, F-7, F-5, and F-8** change and the selected **541** menu item **542** will be displayed in field **F-6** with specific health and wellness information displayed in field **F-7** allowing for comprehensive customization, illustrated exemplarily under **FIG. 16, 17, 18, 19, 20 and 21**. A selected **541** menu item **542** can be order **543** for dine-in **566**, for delivery as ready cooked or ready portioned for home cooking **565** or for collection as ready cooked or ready portioned for home cooking **564**, or the said menu item **542** save **545** without customization in the personal menu **546** under the same subcategory **547**, or under any other subcategory, illustrated exemplarily **548** or **549**. Or a new main category, illustrated exemplarily as own creation **550** can be created with a sub-category **551** and the said menu item **542** can be save **545** under such said new sub-category **551**. Or the said menu item can be customize **544** and save **545** in the personal menu **546** under the same subcategory **547**, or any other category. When the menu logo icon of a personal menu, illustrated exemplarily as the mothers menu **530**, is selected the display in field **F-2** changes and the personal menu **546** of the mother emerges in field **F-2** displaying a plurality of main, sub-categories, and

menu items, mirroring the menu structure and display of the illustrated participating restaurant 535. A menu item 553 can be select 552 from either the listed or picture menu of the personal menu 546, to place an order 543 for dine-in 566, delivery 565 or collection 564, or customized 544 and an order 543 placed for dine-in 566, delivery 565 or collection 564, or saved 545 in the personal menu 546. There is no limitation on the number of customizations 544 or the creation of personal new main and sub-categories 550 for the personal menu 546. Member 507 users 508 can also use the standard menu functions 554 in field F-1. Non-member 510 users 508 can only use the vertical scrollable standard menu options in field F-1, illustrated exemplarily under FIG.09. Non-member 510 users 508 can select, illustrated exemplarily, the mealtime function tab 555 and the filed F-2 changes and displays in field F-2 the standard menu 556 of the participating restaurant 1 524 with a plurality of available main 557, sub-category 558, and the menu items 559, listed under the respective sub-categories 559 and a picture menu in in the merged fields F-6, F-7, F-5, and F-8. Non-member 510 users 508 can select 560 a menu item 561 and order 562 the menu item 561, or select 560 a menu item 561, customize 563 the selected 560 menu item 561 and order 562 the customized 563 menu item 561 for dine-in 566, delivery 565 or collection 564. Non-member 510 users 508 can also select from a plurality of restaurants, illustrated exemplarily as restaurant 1 524, restaurant 2 525, and restaurant 3 526, and select 560 a menu item 561 either from the list or picture menu and order 562 the menu item 561, or select 560 a menu item 561, customize 563 the selected 560 menu item 561 and order 562 the customized 563 menu item 561 for dine-in 566, for delivery as ready cooked or ready portioned for home cooking 565 or for collection as ready cooked or ready portioned for home cooking 564. Non-member 510 users 508 cannot establish or access a personal menus. In operation, the CCOS 1 allows for a customizable time limited capturing and recording of ordered menu items within the front of house module within the CCOS 1 through a local RMNS 116. Member 507 users 508 can use in field F-3, a recall function tab 567, when selected, displays in field F-6 a vertical scrollable lists of menu item pictures of previously ordered menu items 568. Tapping on a particular previously ordered menu item picture displays the selected menu item picture in field F-6 with the related health and wellness information displayed in field F-7. Tapping on the reverse function tab in field F-5 reverses it back to the list of menu item pictures displayed in field F-6. In operation, the CCOS 1 allows for a customizable time limited capturing and recording of a plurality of rated menu items menu items within a plurality of independent and interconnected modules within the CCOS 1 through the RMNS 116. A plurality of rating functions tabs are available within the horizontal scrollable field F-9 and embedded in the menu item picture displayed in field F-6 with the related health and wellness information displayed in field F-7. Member 507 users 508 and non-member 510 users 508 can chose between a plurality of rating options, illustrated exemplarily as best rated healthy menu item 570 and best rated budget menu item 571 in field F-10. The CCOS 1 allows for the adding of options, illustrated exemplarily as other customizable functions 572.

FIG. 11

Referring now to FIG. 11 illustrating a flow diagram of a member 575 use 578 loyalty program function 591 of the CCOS 1. In operation in the illustrated flow diagram for a landing screen 588 of the CCOS 1, the loyalty program function 591 is for private 573 and corporate 574 member 575 users 578 and their respective sub-members 579 only. Non-members 580 users 578 cannot use this function. Member 575 users 578 can access the startup screen 581 within a participating restaurant envelope 582 through the restaurant provided SRUDIs 583 and

MRUDIs **584**, and member **575** users **578** can also use their own **PUDIs 585** within a participating restaurant envelope **582** to access the startup screen **581**. Member **575** users **578** can access the startup screen **581**, addressed under **FIG. 07**, from remote locations **586** using a plurality of **PUDIs 587**. To access to the landing screen **588**, addressed under **FIG. 09**, member **575** users **578** must login **589** to receive an access. Non-member **580 users 578** are allowed as guests **590**. In operation member **575** users **578** can select the loyalty program function tab **591** within horizontal scrollable member panel **592**, addressed under **FIG. 09**. When member **575** users **578** select the loyalty program function tab **591**, field **F-2** displays an interactive main option manual **593**, field **F-6** that displays the summary details **594** related to each main subject, and field **F-7** displays the particular details of the selected subject, illustrated exemplarily as loyalty program introduction **595** which is situated in the entertainment and library **596** within the entertainment module of the **CCOS 1**, illustrated exemplarily under **FIG. 08**. There is also a loyalty program relation to a plurality of participating restaurants **597** that are linked to the marketing and service module **598** of the **CCOS 1** and special loyalty programs **599** and loyalty program events **600** linked to the loyalty program module **601** of the **CCOS 1** and a plurality of customizable non-specified loyalty programs, illustrated exemplarily as plurality of other non-specified **602** for which customizable modules are available **603**. There is also a loyalty point management **604** linked to a loyalty point management platform **605** within the loyalty program module **601**. Under the loyalty point management platform **605**, member **575** users **578** can establish and manage a plurality of their own master loyalty points account and a plurality of sub member loyalty points accounts **606** and special project loyalty points accounts **607** linked to the respective member **575** users **578** accounts, illustrated exemplarily under **FIG. 15**, and make use of their respective loyalty points, illustrated exemplarily under **FIG. 12**. Within the loyalty point management platform **605**, member **575** users **578** can use the customization functions **608** to customize activation, distribution and allocation, and usage of loyalty points involving a plurality of loyalty point accounts, including suspension and deletion of said loyalty point accounts. The **CCOS 1** allows for a plurality of sources of loyalty points. The **CCOS 1** allows for an automated delivery of loyalty points to member **575** users **578**, based on the prevailing loyalty point allocation setting **609**. Sources of loyalty points **610** are loyalty points from own personal consumptions **611** for orders placed at any participating restaurant, loyalty points derived from referrals **612** when member **575** users **578** refer **613** non-members **580 users 578** and those referred non-members **580 users 578** become members **507**, and tombola granted loyalty points **614**. Tombola granted loyalty points **614** derive from a self-governed tombola program **615** within the loyalty program module of the **CCOS 1**, that automatically collects and allocates points **615** from paying walk-in non-referred non-member customers **580** who decide to become members **507**. Such points are collected within the tombola program **616** within the loyalty program module of the **CCOS 1**, and randomly distributed to active member **575** users **578** and their employing a customizable program structure that recognizes loyal member **575** users **578**. The **CCOS 1** allows for additional loyalty point **617** sources to be added.

FIG. 12

Referring now to **FIG. 12** illustrating a flow diagram of a member **620** user **621** loyalty services and products function tabs **634** and **635** of the **CCOS 1**. In operation in the illustrated flow diagram for a landing screen **631** of the present invention of the **CCOS 1**, the loyalty services and products function tab **634** and **635** is for private **618** and corporate **619** member **620** users **621** and their respective sub-members **622 users 621** only. Non-members **623** users

621 cannot use this function. Member **620** users **621** can access the startup screen **624** within a participating restaurant envelope **625** through the restaurant provided SRUDIs **626** and MRUDIs **627**, and member **620** users **621** can also use their own PUDIs **628** within a participating restaurant envelope **625** to access the startup screen **624**. Member **620** users **621** can access the startup screen **624**, addressed under **FIG. 07**, from remote locations **629** using a plurality of PUDIs **630**. To access to the landing screen **631**, illustrated exemplarily under **FIG. 09**, member **620** users **621** must login **632** to receive a access. Non-member **623** users **621** are allowed as guests **633**. In operation member **620** users **621** can select the loyalty service or loyalty product function tab **634** and **635** within horizontal scrollable member panel **636**, illustrated exemplarily under **FIG. 09**. When a member **620** users **621** selects either the loyalty service **634** or loyalty products **635** function tab on the member panel **636**, the CCOS **1** displays an interactive menu option **637** in field **F-2** allowing member **620** users **621** a plurality of options. When the restaurant option **638** is selected, field **F-2** the displays in field **F-2** changes, displaying a plurality of participating restaurants, illustrated exemplarily as restaurant 1 **639**, restaurant 2 **640**, and restaurant 3 **641**. A member **620** users **621** can select a single of plurality of restaurant **642**, illustrated exemplarily as restaurant 2 **643** and restaurant 3 **644**. When selecting a single to plurality of restaurants, the CCOS **1** displays in field **F-6** a vertical scrollable menu **645**, showing the total number of loyalty points **646**, and the total number of tombola loyalty points **647**. Loyalty points **646** and tombola points **647** have different uses and values as maybe determined from time to time. The menu **645** displays also a plurality of selected restaurants, illustrated exemplarily as restaurant 2 **648** and restaurant 3 **469**, and distinguishes between a plurality of inhouse related **650** loyalty services **651** and products **652**, illustrated exemplarily for restaurant 2 **648** specifying spa treatment **655** under loyalty services **653**. Inhouse related **650** and third party provider **629** loyalty services **653** or loyalty products **654** can vary in scope and range, between restaurants, illustrated exemplarily for restaurant 3 **656** offering a coffee product **657**. The required or authorized use of loyalty points are also displayed (190 and 25), illustrated exemplarily by **658** and **659**. Member **620** users **621** can make use of the loyalty points **646** and tombola loyalty points **647** to pay for a customer check within a participating restaurant, or for loyalty services and loyalty products **660**. Member **620** users **621** can also select the compile/assign function tab **661** in field **F-5** that allows member **620** users **621** to assign loyalty points **662**. Upon selecting the compile/assign function tab **661**, the CCOS **1** displays, illustrated exemplarily the relevant member **620** users **621** in field **F-7** including the number of the currently accumulated loyalty points. The same display format applies for corporate **619** member **620** users **621**. Member **620** users **621** can use a plurality of vertical scrollable designated function tabs in field **F-8** to divide and assign **663** or assign loyalty points **664** to a single or plurality of member **620** users **621** who are displayed in field **F-7**, allowing for further instruction for general use **666** or specific use **667** by specifying the use for specific loyalty services, products or purposes **668**. The recipient member **620** users **621** of said assigned loyalty points can accumulate the required loyalty points for later use **660**. Member **620** users **621** can also make own use of loyalty points **669** by dividing and assigning **670** loyalty points, or assigning loyalty points **671** to a plurality of loyalty services **672** and loyalty products **673** and accumulate the required loyalty points for specific loyalty services, loyalty products, and purposes **674** for later or immediate use **660** including paying for customer check. When inside **675** a participating restaurant, illustrated exemplarily as restaurant 3 **676**, the same menu **645** display emerges in field **F-2**, with the difference that restaurant 3 **676** is listed on top. All other scrollable menu **645** function including assigning loyalty points **662** and own use

of loyalty points **669** functions and processes apply in the same way. The CCOS **1** provides member **620** users **621** a search **677** function in field **F-2**, that allows provides member **620** users **621** to specify in field **F-9** a search by categories **678** and make a selection from a dropdown list in field **F-10**. There is also a specific category search function **679** in field **F-9** that allows member **620** users **621** to specify the search in field **F-10** by restaurants **680**, third parties **681**, loyalty services **682**, loyalty products **683**, and loyalty purposes **684**. There is also a function in field **F-2** that allows for the display of discount vouchers and other non-loyalty point benefits **685** in field **F-3**. The CCOS **1** allows for the adding of a plurality of other functions, illustrated exemplarily as a plurality of non-specific **686**.

FIG. 13

Referring now to **FIG. 13** illustrating a flow diagram of a member **689** user **690** create my own function **703** of present invention of the CCOS **1**. In operation in the illustrated flow diagram for a landing screen **700** of the present invention of the CCOS **1**, the create my own function **703** is for private **687** and corporate **688** member **689** users **690** and their respective sub-members **691** only. Non-members **692** users **690** cannot use this function. Member **689** users **690** can access the startup screen **693** within a participating restaurant envelope **694** through the restaurant provided SRUDIs **695** and MRUDIs **696**, and Member **689** users **690** can also use their PUDIs **697** within a participating restaurant envelope **694** to access the startup screen **693**. Member **689** users **690** can access the startup screen **693**, addressed under **FIG. 07**, from remote locations **698** using a plurality of PUDIs **699**. To access to the landing screen **700**, illustrated exemplarily under **FIG. 09**, member **689** users **690** must login **701** to receive a access. Non-members **692** are allowed as guests **702**. In operation, the create my own function tab **703** on the member panel **704** allows private **618** and corporate **619** member **620** users **621** and their respective sub-members **622** a plurality of options **705** to proceed, illustrated exemplarily as option 1 **706**, option 2 **707**, and option 3 and 4 **708**. Upon selecting the create my own function tab **703**, the CCOS **1** displays in field **F-2** a plurality of standard menus from a plurality of participating restaurants, illustrated exemplarily as restaurant 1, restaurant 2, and restaurant 3 **709**, and aligns and displays a plurality of existing related personal menus, illustrated exemplarily as the personal menus of a family **710** beside a standard menu of the participating restaurant 3 **709**. Under option 1 **706** an existing menu item can be selected **708** from a standard menu **709** or personal menu **710** to form the basis of a new menu item creation **724**. A plurality of selected menu items **708** can be placed into a shortlist folder **711** displayed in field **F-3**, using the shortlist function illustrated exemplarily under **FIG. 09/Ref 410** before making a final choice of shortlisted menu item **708**. The shortlist folder allows for the compiling of a plurality of menu items **708** for consideration of customization. Customization is executed by selecting first the customize function tab **712**, illustrated exemplarily under **FIG. 09/462**. When the customize function tab **712** is selected in combination with the create my own function **703**, the CCOS **1** highlights the personal menus **710** in field **F-2**, and a selection can be made for which single or plurality of personal menus the menu item can be created. When a selection is made, the CCOS **1** creates under the single or plurality of selected personal menus, illustrated exemplarily for all family members **721**, a temporary menu item file within the selected personal menus **710** until the newly created menu item was saved **724**. Customization **712** of a selected menu item **708** can be executed in a plurality of ways in no particular order. Illustrated exemplarily for this diagram is option 1 **706**, option 2 **707**, option 3 and 4 **708**. Applying option 1 **706**, a selected menu item **708** can be customized **712** choosing the exemplarily path 1 **713**, determining first the type of

cuisine including flavour **714** displayed in field **F-9**, which includes also a plurality cuisine type flavour sub-categories, exemplarily organized for illustration purpose as country, region, and city **715** organized in a plurality of levels. Followed by selecting a single or plurality of key ingredients **716** which includes also a plurality of sub-categories for each main key ingredient, illustrated exemplarily for two level (L-1 and L-2) **717**, which can be further extended to add specific ingredient and sub-ingredient options, as illustrated exemplarily under the ingredient inventory organization structure under **FIG. 55**. Or, proceed vice versa by selecting first a single or plurality of key ingredients, followed by selecting the cuisine flavour **718**. This can be followed **719** by including and/or excluding a plurality of available health and wellness option functions under the health and wellness segment **720**, with the possibility to make adjustments to any individual health and wellness functions during the selection process. The exemplarily path 2 **721** allows to establish the health and wellness framework **720** first, with adjustments when desired, followed by **719**, using the ingredient type options **716**, and cuisine options **714** in no particular order. The exemplarily path 3 **722** allows for the customization **712** of a selected menu item **708** without consideration of the cuisine options **714** and/or the key ingredient options **716** and/or health and wellness functions **720**, using only the ingredient select and exchange menu option **723**, illustrated exemplarily under **FIG. 27**. Option 2 allows for the creation of a menu item from scratch **724**, by selecting the customize function **712** in field **F-9**, followed by composing the ingredients using the ingredient select and exchange menu **723**, illustrated exemplarily under **FIG. 27**. Option 3 and 4 **708**, including path 4 **725** allows to determine the cuisine flavour option **714**, key ingredients **716** without consideration of the health and wellness options **720**. A plurality of newly created and saved menu items **724** can also be put into a shortlist folder **727** displayed in field **F-3** using the shortlist function illustrated exemplarily under **FIG. 09/Ref 410**. It allows for the compiling of a plurality of newly created and saved menu items **724** before filing said menu items in a single or plurality of respective personal menus **721**. Shortlisted menu items can also be deleted using the clear function, illustrated exemplarily under **FIG. 09/Ref 414**. For example, it allows a parent to create, save, and/or adjust a plurality of healthy menu items **724** for children or others, and place said menu item into the children's personal menus or special project menus like diet plans for an elderly or any other person. Menu items **728** can then be selected from a single or plurality of personal menus **721** and ordered **729** for dine-in **730**, delivery **731**, or collection **732** at the counter **733** or the 24 hour dispenser **734**, including for home cooking **735**.

FIG. 14

Referring now to **FIG. 14** illustrating a flow diagram of a member **738** user **739** communication function **752** of present invention of the CCOS **1**. In operation in the illustrated flow diagram for a landing screen **749** of the present invention of the CCOS **1**, the member **738** communication function tab **752** is for private **736** and corporate **737** member **738** users **739** and their respective sub-members **740** only. Non-members **741** users **739** cannot use this function. member **738** user **739** can access the startup screen **742** within a participating restaurant envelope **743** through the restaurant provided SRUDIs **744** and MRUDIs **745**, and member **738** user **739** can also use their own PUDIs **746** within a participating restaurant envelope **743** to access the startup screen **742**. Member **738** user **739** can access the startup screen **742**, addressed under **FIG. 07**, from remote locations **747** using a plurality of PUDIs **748**. To access to the landing screen **749**, illustrated exemplarily under **FIG. 09**, member **738** user **739** must login **750** to receive access. Non-members **741** are allowed as guests **751**. In operation, when selecting the communication function tab **752** member **738** user **739** reach an

option manual **754** in field **F-2** displaying a plurality of sub function tabs, illustrated exemplarily as recommend a participating restaurant **755**, let's get together **756**, make a referral **757**, and under a special section **758**, submit a suggestions **759**, submit a complaint **760**. Further options can be added during customization, illustrated exemplarily as a plurality of non-specified as **761**. There is also a search function **762**. A plurality of special communications **758**, illustrated exemplarily as **759**, **760**, and **761** can be executed by member **738** user **739** using a single template **763** from a plurality of available templates **764** displayed in field **F-9**. The selected template is converted into an interactive virtual communication **765** displayed in field **F-6**. Simultaneously the CCOS **1** generates a virtual keyboard **766** and captures the member **738** user **739** particulars and inserts said member **738** user **739** information **767** into the original virtual communication **765**, including an alphanumeric reference code. Simultaneously, the CCOS **1** displays an interactive list of possible reference subjects **768** from which a suitable reference subject can be selected and included. Based on the alphanumeric reference code the CCOS **1** categorizes, organises, distributes, and establishes a response time and the internal communication protocol **770** in relation to the original communication **765**, and directs the communication to the relevant departments **771** within the head office **772**, representative or branch office **773**, and the relevant participating restaurant **774**. Simultaneously the CCOS **1** establishes under the marketing and service module within the CCOS **1** the relevant corresponding records **775** linked to the alphanumeric reference code of the original communication **765**, including alphanumeric tracking reference number, and an interactive action list with distribution and attendance reference and confirmation fields, follow up sequence, and time report fields, response time analytics in form of a plurality of data and graphics, and links to the plurality of relevant internal communications **776** are also created and linked to the alphanumeric reference code of the original communication **765**, allowing for a final response communication **777** in response to the original communication **765**. In operation the CCOS **1** allows for communication between members **738**. Selecting one of the function tabs, illustrated exemplarily as recommend a participating restaurant **755**, let's get together **756**, make a referral **757**, changes the display in field **F-2**, generating in field **F-2** an interactive member **738** contact list **778** organized by family members **779**, friends **780**, colleagues **781**, and non-member **741** contacts **872** to which member **738** user **739** can also import personal contacts, including visible member contacts **784** available within the CCOS **1** member database in the membership module. An open member contact are contacts explicitly authorised to be made public by a member **738** user **739** for open listing. In operation, member **738** user **739** can select to recommend a single or plurality of participating restaurants **755**, or arrange a get together **756** in a participating restaurant with other member **738** users **739** by selecting first a single or plurality of contacts from the contact list, illustrated exemplarily as **779**, **780**, **781**, and **782**, followed by creating a message **785**, whereby a message can be created using a template from the plurality of message templates **786** in field **F-3** **787**, or use the standard message format and create a personal message **788**. In both cases, a virtual keyboard **789** emerges, and the CCOS **1** generates a alphanumeric tracking reference when a message is created **785**. A created message **785** can include a link to a single or plurality of menu items from a single or plurality of participating restaurants or personal menu items **790**, with the option to limit the time and access **791**. A location map **792** can be linked. When the function **790** or **793** is selected, the display in **F-2** changes and the CCOS **1** displays the participating restaurants and plurality of standard restaurant and personal menus, illustrated under **FIG. 10** from were a selection can be made. Member **738** user **739** can also create a plurality of personal and formal virtual

invitation cards **794** from available templates **795**. The CCOS **1** allows for the adding of further functions, illustrated exemplarily as plurality of other non-specified options **796**. Sending a message creates also a message record within the member **738** user **739** account, illustrated under **FIG. 15**. Member **738** user **739** can also send out standard referral messages **798** to non-members **741**, with the option to add a personal message **788**. For every referral message **798**, the CCOS **1** generates automatically an encrypted referral code **799** that is linked to the sending member **738** user **739** member ID and account, allowing the CCOS **1** to recognize and record a referral as a successful referral when the referred non-member **741** becomes a member **738** user **739**.

FIG. 15

Referring now to **FIG. 15** illustrating a flow diagram of a member **802** user **803** account function tab **816** of present invention of the CCOS **1**. In operation in the illustrated flow diagram for a landing screen **811**, the member account function tab **816** is for private **800** and corporate **801** member **802** users **803** and their respective sub-members **804** only. Non-members **805** users **803** cannot use this function. Member **802** users **803** can access the startup screen **806** within a participating restaurant envelope **807** through the restaurant provided SRUDIs **808** and MRUDIs **809**, and member **802** users **803** can also use their own PUDIs **810** within a participating restaurant envelope **807** to access the startup screen **806**. Member **802** users **803** can access the startup screen **806**, addressed under **FIG. 07**, from remote locations **812** using a plurality of PUDIs **813**. To access to the landing screen **811**, illustrated exemplarily under **FIG. 09**, member **802** users **803** must login **814** to receive a access. Non-members **805** are allowed as guests **815**. In operation, member **802** users **803** can select the my account function tab **816** within horizontal scrollable member panel **817**, illustrated exemplarily under **FIG. 09**. When the my account tab **816** is selected an account option manual **818** is displayed in field **F-2**, comprising of a plurality of functions tabs including first time authentication **819**, setup and change personal password **820**, and account management **846**. Upon successful authentication, the CCOS **1** also displays a plurality of shortcuts **821** under main customization **865**, illustrated exemplarily as **866**, **867**, **868**, **869**, **870**, **871**, **872**, **873**, **874**, **875**, **876**, **876**, **877** **878**. In operation, the plurality of accounts are displayed in field **F-9** and **F-10** allowing existing private **800** and corporate **801** main account member **802** users **803** to establish a plurality of sub-members **804** accounts by completing and submitting sub-account membership applications **822** using the provided e-form **823**, and submit **824** the e-form **823** for a review and approval process **825**. If approved **826**, the CCOS **1** generates an encrypted alphanumeric challenge code and a readable confirmation code **827** and sends an invitation to the designated target PUDI **828** named in the e-form **823** of the sub-account membership application **822**. Simultaneously, the CCOS **1** establishes the generated encrypted alphanumeric challenge code and an original numeric confirmation code **827** for a customizable time limited authentication process. In operation the invitation authentication is executed by an invited sub-member **804** in two phases, using the original numeric confirmation code **827** as password for the login **814**. On the account option manual **818** the first time authentication function tab **819** is selected. Field **F-2** changes and displays the encrypted alphanumeric challenge code **831** and a free text field **832** is displayed. Phase one includes entering the original numeric confirmation code, using a numeric keypad that is displayed in field **F-3**. The function tab confirm **833** is activated. The CCOS **1** executes an authentication protocol to match the challenge and original confirmation code **834**. A successful authentication **835** results in the display of a new numeric code **836**. An

unsuccessful authentication **835** results in the CCOS **1** sending a resolution notification **843** to the designated PUDI **830**, providing a plurality of resolutions. Phase two includes the entering of the new numeric code into a free text field **837**, and the confirm function tab **838** is activated. The CCOS **1** matches now the challenge code, the original numeric confirmation code, and the new numeric code **839**. When successful authenticated **840** the CCOS **1** generates a new time limited alphanumeric password **841** that can be used for login **814**. An unsuccessful authentication **835** results in the CCOS **1** sending a resolution notification **842** to the designated PUDI **830**, providing a plurality of resolutions. Upon receipt of the alphanumeric time limited password **841** the new sub-member **804** is advised to use the change password function **820** to a personal password. CCOS **1** allows for plurality changes of a password. If not changed within a suggested time frame, the CCOS **1** sends reminders to the designated PUDI **830**. If password is still not changed, CCOS **1** suspends the account until the password is changed. If no first time authentication attempted **844** is made within a specified time frame after receiving an invitation **827** the CCOS **1** automatically deletes **845** the account with prior notification to the applicant. In operation, member **802** users **803** can use the account management function tab **846** in filed **F-2** to manage their respective accounts. The CCOS **1** allows for a plurality of Member **802** users **803** accounts, illustrated exemplarily as a private family member account **847** and a corporate member account **848**. Private single member accounts **849** can also be established following the same principle. A typical private member family account **847** consists of a single main account **850**, illustrated exemplarily as a fathers **851** main account **850**, and a plurality of sub-member accounts **852**, illustrated exemplarily for a mother **853** and two children **854** and **855**. Further sub-member accounts **852** can be added, illustrated exemplarily as **856**. Private member accounts can be established using at first the member application, illustrated under **FIG.07**. Under a private member family account **847**, the main account holder **850** and the plurality of sub-member **804** account holder **863**, **854**, **855**, **856** can personalize **857** their individual accounts **851**, **853**, **854**, **855**, **856** by uploading a personal picture **858** that will be reflected on a plurality of function tabs and screen displays after login in **814**. The main account holder **850** and the plurality of sub-member **804** account holder **853**, **854**, **855**, **856** can proceed to establish and customize a plurality of personal health and wellness settings in filed **F-6**, using the personal customization function **857**, by uploading a personal picture and providing base data **858**, illustrated exemplarily under **FIG. 16**, establish personal kcal and nutrition objectives and requirements **859**, illustrated exemplarily under **FIG. 17**, establish personal portion settings **860**, illustrated exemplarily under **FIG. 18**, establish personal diabetic settings **861**, illustrated exemplarily under **FIG.19**, establish a plurality of personal budget targets **862**, illustrated exemplarily under **FIG. 21**, establish personal allergy settings **863**, illustrated exemplarily under **FIG. 21**. The CCOS **1** allows for a plurality of other customizable health and wellness functions to be added, illustrated exemplarily as plurality of customizable functions **864**. The main account holder **850** have the authority to use the main customization function **865** to activate, suspend, and delete a main and a plurality of sub-accounts **866**, to set and administer budget allowances for a main and a plurality of sub-accounts **867**, to set and administer time based and use limitations for a main and a plurality of sub-accounts **868**, to set and administer the loyalty point distribution for a main and a plurality of sub-accounts **869**, to set and administer the loyalty point use for a main and a plurality of sub-accounts **870**, to set and administer the payment setup for a main and a plurality of sub-accounts **871**, including a autopay function, to set and administer the selection, activation and suspension for a plurality of personal menus for a main and a plurality of sub-accounts **872**, to set and

administer the selection, activation and suspension for a plurality of personal menu items for a main and a plurality of sub-accounts **873**, to set and administer the selection, activation and suspension for a plurality of restaurant menus for a main and a plurality of sub-accounts **874**, and to set and administer the selection, activation and suspension for a plurality of participating restaurant menu items for a main and a plurality of sub-accounts **872**. The CCOS **1** allows for a plurality of other customizable functions to be added, illustrated exemplarily as plurality of customizable functions **876**. A main account holder **850** can add a plurality of sub-accounts **877** through the application process **822**. A main account holder **850** can also use the special project tool **878** to add, administer, and delete a plurality of special project accounts **879**, illustrated exemplarily as eastern **880** and Christmas **881**. A main account holder **850** can give limited autonomy to a plurality of sub-members **804** using the authorization function **882** for a plurality of main customizations **865**, illustrated exemplarily for **871**, **872**, **873**, **874**, **875**, **876**, **879**. A corporate member account **883** with its authorized director account **885** are displayed in field **F-9**, and the plurality of employees sub-accounts are displayed in field **F-10**, allowing for a single main account **883** for a corporation, illustrated exemplarily by a corporation's logo **884**, and an authorized administrator being an authorized director **885**, who can establish and administers a plurality of sub-member employee accounts **886**, illustrated exemplarily as employee 1 to 5 **887**, **888**, **889**, **890**, **891**. Further sub-member accounts **886** can be added, illustrated exemplarily as **892**. Corporate accounts can be established using the member application, illustrated under **FIG.07**, but require additional documentation. The authorized director **885** and the plurality of sub-member account holders **887**, **888**, **889**, **890**, **891** can customize **893** their individual accounts **887**, **888**, **889**, **890**, **891** uploading a personal picture **894** that will be reflected on a plurality of function tabs and screen displays after login in **814**. The authorized director **885** and the plurality of sub-member account holders **887**, **888**, **889**, **890**, **891** can establish and customize a plurality of personal health and wellness settings in field **F-6**, using the personal customization function **893**, uploading a personal picture and providing base data **894**, illustrated exemplarily under **FIG. 16**, establish personal kcal and nutrition objectives and requirements **895**, illustrated exemplarily under **FIG. 17**, establish personal portion settings **896**, illustrated exemplarily under **FIG. 18**, establish personal diabetic settings **897**, illustrated exemplarily under **FIG.19**, establish a plurality of general employee and personal budget targets **898**, illustrated exemplarily under **FIG. 20**. establish personal allergy settings **899**, illustrated exemplarily under **FIG. 21**. The CCOS **1** allows for a plurality of other customizable health and wellness functions to be added, illustrated exemplarily as plurality of customizable functions **900**. A authorized director **885** can give limited autonomy to a plurality of sub-members using the authorization function **901** for a plurality of main customization functions **865** to activate, suspend, and delete a main and a plurality of sub-accounts **866**, to set and administer budget allowances for a main and a plurality of sub-accounts **867**, to set and administer time based use limitations for a main and a plurality of sub-accounts **868**, to set and administer the loyalty point distribution for a main and a plurality of sub-accounts **869**, to set and administer the loyalty point use for a main and a plurality of sub-accounts **870**, to set and administer the payment setup for a main and a plurality of sub-accounts **871**, to set and administer the selection, activation and suspension for a plurality of personal menus for a main and a plurality of sub-accounts **872**, to set and administer the selection, activation and suspension for a plurality of personal menu items for a main and a plurality of sub-accounts **873**, to set and administer the selection, activation and suspension for a plurality of restaurant menus for a main and a plurality of sub-accounts **874**, and to set and administer the selection, activation

and suspension for a plurality of participating restaurant menu items for a main and a plurality of sub-accounts **872**. The CCOS **1** allows for a plurality of other customizable functions to be added, illustrated exemplarily as plurality of customizable functions **876**. A main account holder **850** can add a plurality of sub-accounts **877** through the application process **822**. The authorized director **885** can also use the special project tool **878** to add, administer, and delete a plurality of special project accounts **879**, illustrated exemplarily as eastern **880** and Christmas **881**. A authorized director **885** can give limited autonomy to a plurality of sub-members **887**, **888**, **889**, **890**, **891** using the authorization function **882** for a plurality of main customizations **865**, illustrated exemplarily for **871**, **872**, **873**, **879**.

FIG. 16

Referring now to **FIG. 16** illustrating a flow diagram of personal health and wellness setting 1 involving a plurality of base data **907** of the CCOS **1**. In operation private **902** and corporate **903** member **904** users **905** and their respective sub-members **905** can provide their base data in field **F-6** that the CCOS **1** will apply to a plurality of calculations and algorithms that will be applied to a plurality of health and wellness functions under the health and wellness module within the CCOS **1**. Non-members **906** users **905** are only able to use the standard functions under the health and wellness segment, illustrated under **FIG. 09/REF:383**. The base data provided in field **F-6** establishes the personal reference data, comprising of the selection between metric **908** or imperial measurements **909**, followed by selecting the gender, male **910** or female **911**, followed by giving the age group **912**, with option to enter the date of birth **913**, weight **914** and height **915**, using a virtual numeric keypad **916** in field **F-10**. When the date of birth **913** option is used, the age group **912** is displayed automatically. The CCOS **1**, using within the health and wellness module established and recognized standards and calculations **917** to establish the prevailing BMI **918** and the current BMR **919**, displayed in field **838**. Member **904** users **905** can then select in field **F-9** the BMI target function tab **920** and enter manually a personal target BMI **921**, select the BMR target function tab **922**, and enter manually the personal target BMR **923**, also using the visual numeric keypad. When selecting the target weight function tab **824** a target weight **924** can be entered manually, using also the virtual numeric keypad **916** in field **F-10**. Using an interactive sliding tool **926** in field **F-7** member **904** users **905** can establish their own current physical activity level PAL **927**, illustrated exemplarily as PAL of 1.7 **928**. The CCOS **1**, takes the age **912**, weight **914**, height **915**, current BMI **918**, current BMR **919**, the target BMI **921**, the target BMR **923**, and the target weight **925** into consideration for its background calculation **917**. The physical activity tool displays also a second activity pointer **929** with the suggested PAL goal, illustrated exemplarily as 1.85 **930**. The current pointer **928** cannot move as it establishes the current situation. The second pointer **929** can be move to increase or decrease the activity level **930** and confirmed **931** to set a goal. The relevant PAL data visible in the sliding tool in field **F-7** is drawn from a plurality of reference data within the health and wellness module within the CCOS **1**, illustrated exemplarily as **936**, **937**, **938** with guiding text information visible member **904** users **905** in field **F-4**, illustrated exemplarily as **939**, **940**, **941**. The CCOS **1** allows member **904** users **905** a plurality of options to use current **932** data. When use current data **932** is selected the CCOS **1** executes calculations and displays a personal chart **935** in the combined fields **F-6** and **F-7** based on the age **912**, current weight **914**, current height **915**, current BMI **918**, current BMR **919**, and the current activity level **928**. When use target data **933** is selected the CCOS **1** executes calculations and displays a personal chart **935** in the combined fields **F-6** and **F-7** based on the age **912**, current weight **914**, target weight **914**,

height **915**, current BMI **918**, current BMR **919**, target BMI **918**, target BMR **919**, and the target PAL **930**. When use both **934** is selected, the CCOS **1** executes calculations and combines both data **932** and **933** to arrive at an achievable goal, and reflect the result in a personal chart **935** in the combined fields **F-6** and **F-7**. A toggle function tab **942** in field **F-3** allows to toggle between the three options **932**, **933**, **934**, and the center information field **943** can be shown or hidden. The personal chart **935** reflects the plurality of general and recommended daily kcal (calorie) consumptions based on age groups, displaying the kcal (calorie) in a vertical display **944**, and in a horizontal display the numerical indicators for the relevant age groups **845** with linear indicators to provide visual assistance. There are also a plurality of personal line indicators, illustrated exemplarily as a gain weight indicator **946**, a maintain weight indicator **947**, and a lose weight indicator **948**. The center display **943** reflects the respective data in text and numerical format. When member **904** users **905** have completed the wellness and health setting 2 and 3 for nutrition and portioning, illustrated exemplarily under **FIG. 17** and **FIG. 18**, the CCOS **1** displays also the relevant daily nutrition consumption tabs in field **F-4**, reflecting on the face of a plurality of information function tabs the relevant prevailing guideline amounts, illustrated exemplarily as energy/calories 2500 **949**, protein 60 gram **950**, good fat 87 gram **951**, saturated fatty acids 25 gram **952**, carbohydrates 303 gram **953**, sugars 6 gram **954**, sodium 1.7 gram **955**, dietary fibre 75 gram **956**, and a plurality of additional information, exemplarily represented by non-specified 00 gram **957**. Adjustments to the said daily nutrition amounts can be made by selecting a particular function tab (e.g. sugars) **954**, and the merged display **F-6** and **F-7** changes into a two part display, showing the reduced graphic in field **F-7**, and in field **F-6** the display, illustrated exemplarily under **FIG. 17/1014**, to allow for manual adjustment of the sugar **954** intake. Selecting in field **F-3** either the gain weight function tab **958**, the maintain weight function tab **959**, or the lose weight function tab **960**, the CCOS **1** will recalculate, adjust, and display the relevant guideline amounts, considering the member **904** users **905** plurality of provided data, and displays the adjusted amounts for the shown categories **949**, **950**, **951**, **952**, **953**, **954**, **955**, **956**, and **957**.

FIG. 17

Referring now to **FIG. 17** illustrating a diagram of the calories (kcal) and nutrition function **961** of the CCOS **1**. In operation, private **963** and corporate **964** member **965** users **966** and their respective sub-members **967** can customize the estimated average requirement (EAR) for calories (kcal) and a plurality of nutrition for a plurality of menu items to meet their personal calories (kcal) and nutrition goals, necessities and requirements. Non-members **968** cannot use this function. When the calories (kcal) and nutrition function tab **961** is selected, the CCOS **1** brings the member **965** users **966** to a screen display, indicated as **962**. On the operation panel **969** are a plurality of function tab, illustrated exemplarily as calories (kcal) and nutrition **970**, a portioning function tab **971**, illustrated exemplarily under **FIG. 18**, a diabetic function tab **972**, illustrated exemplarily under **FIG. 19**, a budget tab **973**, illustrated exemplarily under **FIG 20**, and an allergy function tab **974**, illustrated exemplarily under **FIG. 21**. The functions calorie (kcal) and nutrition **970**, portioning function **971**, and diabetic function **972** can be linked **975** so member **965** users **966** can receive more comprehensive information. To start the creation of a personal new diet plan, member **965** users **966**, illustrated exemplarily being a father **975** who is the private **963** member **965** family member account holder, activates in field **F-4** the calorie (kcal) and nutrition function tab **970**. A plurality of member icon representations **976**, illustrated exemplarily comprising of the father **977** being the private **963** member **965** account holder, with the mother **978** and two children **979** and

980 the sub-member 967 account holders are displayed in field F-6. The source data 981 is drawn from the relevant data, illustrated exemplarily under FIG.15. A member icon representation is selected 982, illustrated exemplarily for child 2 980 for whom a diet plan is to be created, or a search for an existing diet plan 1028 is to be initiated. The selected member icon representation 982 for child 2 980 is identified by a colored frame 983. When the member icon for child 2 980 was selected, the estimated average requirements (EAR) calorie (kcal) daily requirements 984 for child 2 980 is displayed in field F-10. The source data 985 is drawn from the results of the base data, illustrated exemplarily under FIG. 16. Simultaneously, a calorie (kcal) and nutrition menu 986 is generated and displayed in field F-2, displaying the numerical estimated average requirements (EAR) for calorie (kcal) 987 and plurality of nutrition 988, including the numerical daily reference nutrition intake (RNI) 988 for child 2 980 that is adequate to ensure that child 2 980 daily reference requirements are met. The source of data (EAR) and (RNI) derives from the ingredient module within the CCOS 1 989, and the personal base data for child 2 980 derives from the plurality of data provided under FIG 16, with the results and calculations executed under the health and wellness module 990 of the CCOS 1. In operation, the diet plan form child 2 980 is created by entering a new name for the diet plan into a text field 991 using a virtual keyboard 992, and a single or plurality of days 993 is selected, using an interactive calendar 994 in field F-4, and the name and date or dates are confirmed 995, resulting in the establishment of a blank diet plan 996 within child's 2 908 sub-member 967 account, awaiting further completion and saving 1026. The diet plan can now be further customized, specifying the calorie (kcal) for a single or plurality of mealtime categories displayed in field F-9 997 by selecting (moving) a single or plurality of mealtime categories from in field F-9 to field F-10 998, and further select a single mealtime category 999, which is then highlighted 1000, and the calorie (kcal) and nutrition menu 986 changes from displaying daily EAR 987, to display now the EAR for the highlighted mealtime category 1000. Customization of selected and highlighted mealtime categories 1002, illustrated exemplarily as a lunch mealtime 1003 is executed by tapping on the arrows to decrease 1004 or increase 1005 the calorie (kcal). The EAR for a selected mealtime category is displayed 1006, and is automatically updated to ADJ, including a color background change when changes to the EAR are made to convey a clear distinction between EAR and ADJ. If no changes are made to the EAR, the EAR in field F-2 remain unchanged 1007. If calories (kcal) adjustments were made a second column is created in field F-2 1008 showing the adjusted total calorie (kcal) intake under a heading ADJ. The relevant EAR and RNI for a plurality of nutritions are updated 1009 in line with pre-established plurality of calculations based on the reference data available and drawn from the health and wellness module 990. The diet plan can be further customized 1010 making adjustments to individual EAR for a plurality of nutritions in field F-2. Making adjustments to a plurality of nutrition intakes 1010 is executed by selecting a single nutrition category 1011 for customization. The selected nutrition category is highlighted 1012. The CCOS 1 provides for a summary educational information 1013. When a nutrition category is highlighted 1012 an interactive adjustment tool, illustrated exemplarily for carbohydrate intake 1014 is displayed in field F-6. It allows for the manual slider adjustment 1015 to increase 1016 or decrease 1017 the EAR level 1018 resulting in an ADJ level 1019. The numeric EAR level 1020 and ADJ level 1021 is shown. Guiding text information are displayed 1022 for calorie (kcal) and a plurality of nutritions to assist with the adjustments. Confirming 1023 creates a second column in field F-2 1008 showing the adjusted nutrition intake under a heading ADJ. The relevant EAR and RNI for a plurality of nutritions are updated 1024 in line with pre-established plurality of calculations based on the reference data available and drawn from the

health and wellness module **990**. When no nutrition intake adjustment is made, the EAR and RNI intake amounts in field **F-2** remain unchanged **1025**. When executing the save function **1026**, the newly created diet plan **1027** overwrites the blank calories diet plan **996**. In operation, the CCOS **1** allows for the searching and retrieving of existing diet plans **1028**.
 5 Retrieving an existing diet plans can be executed within the operation panel in field **F-4** by entering a known dietplan name **1029**, providing for a suggestion dropdown function. Retrieving an existing diet plans can also be executed by way of single date **1030**, or date range **1030** and **1031**, using the interactive calendar **994**. A search result is compiled in an interactive dropdown menu **1032** from which a particular diet plan can be selected **1033**.
 10 When selected, the diet plan is loaded and displayed **1034**. A retrieved diet plan can be renamed and duplicate **1035** using all existing setup parameters, or changes can be made, illustrated exemplarily as **1036**, **1037**, and **1038**, and changes to the base data can be made **1039**. A retrieved diet plan can also be deleted by the delete function tab **1040**. An active diet plan can also be reset **1041** to its original EAR setting. The suggest safe intake function tab **1042**, results in the CCOS **1** adjusting the calorie (kcal) and plurality of nutritions to suggestions applying pre-established plurality of calculations based on the reference data available and drawn from the health and wellness module **990** that are based on the provided base data under **FIG. 16**. The function tab **1043** changes the screen display to the screen display of **FIG. 16** to allow changing the base data. A plurality of additional categories that can
 20 be added during customization, illustrated exemplarily as **1044**.

FIG. 18

Referring now to **FIG. 18** illustrating a diagram of the portionings function **1045** of present invention of the CCOS **1**. In operation, private **1046** and corporate **1047** member **1048** users
 25 **1049** and their respective sub-members **1050** can customize the estimated average requirement (EAR) by way of portioning for a plurality of menu items to meet their personal dietary goals, necessities and/or requirements. Non-members **1051** cannot use this function. When the portionings function tab **1045**, also illustrated under **FIG 22** is selected, the CCOS **1** brings the member **1048** users **1049** to a screen display, indicated as **1052**. On the operation
 30 panel **1053** are a plurality of function tab, illustrated exemplarily as calorie (kcal) and nutrition **1054**, illustrated exemplarily under **FIG. 17**, a portioning function tab **1055**, illustrated exemplarily under **FIG. 18**, a diabetic function tab **1056**, illustrated exemplarily under **FIG. 19**, a budget tab **1057**, illustrated exemplarily under **FIG 20**, and an allergy function tab **1058**, illustrated exemplarily under **FIG. 21**. For visual reference, the functions calories (kcal) and nutrition function **1054**, portioning function **1055**, and diabetic function **1056** can be linked
 35 **1059** so member **1048** users **1049** can receive more comprehensive information. To start the creation of a personal new portioning diet plan, member **1048** users **1049**, illustrated exemplarily being a father **1060** who is the private **1046** member **1048** family member account holder, activates in field **F-4** the portioning function tab **1055**. A plurality of member icon representations **1061**, illustrated exemplarily comprising of the father **1062** being the private
 40 **1046** member **1048** account holder, with the mother **1063** and two children **1064** and **1065** are the sub-member **1050** account holders displayed in field **F-6**. The source data **1066** is drawn exemplarily from **FIG.15/Ref 851, 853, 584, 855**. A member icon representation is selected and identified **1067**, illustrated exemplarily for child 2 **1065** for whom a portioning diet plan is to be created, or a search for an existing portioning diet plan **1113** is to be initiated. The selected member icon representation for child 2 **1065** is identified by a colored frame **1068**.
 45 When the member icon for child 2 **1065** is selected, the estimated average requirements

(EAR) for daily calorie (kcal) requirements **1069** for child 2 **1065** is displayed in field **F-10**. The source data **1070** is drawn from the results of the base data under **FIG. 16**. Simultaneously, a portioning menu **1071** is generated and displays in field **F-2** the numerical estimated average requirements (EAR) for daily calorie (kcal) **1072** and the daily reference nutrition intake (RNI) of portioning **1073** for child 2 **1065** that is adequate to ensure that child 2 **1065** daily reference requirements are met. The source of data (EAR) and (RNI) derives from the ingredient module **1074** within the CCOS **1**, and the personal base data for child 2 **1065** derives from the plurality of source data **1066** provided under **FIG 16**, with the relevant calculations executed under the health and wellness module **1075** within the CCOS **1**. In operation, the diet plan form child 2 **1065** is created by entering a new name for the diet plan into a text field **1076** using a virtual keyboard **1077**, and a single or plurality of days **1078** is selected, using an interactive calendar **1079** in field **F-4**, and the name and date, or dates are confirmed **1080**, resulting in the establishment of a blank portioning diet plan **1081** within child 2 **1065** sub-member **1050** account, awaiting further completion and saving **1111** in field **F-4**. The portioning diet plan can now be further customized, specifying the portioning for a single or plurality of mealtime categories displayed in field **F-9** **1082** by selecting (moving) a single or plurality of mealtime categories from in field **F-9** to field **F-10** **1083**, and further select a single mealtime category **1084**, which is then highlighted **1085**, resulting in a change in the portioning menu **1071** from displaying the daily EAR **1072**, to the EAR for the highlighted mealtime category **1086**. Customization of a highlighted mealtime categories **1087**, illustrated exemplarily as a lunch mealtime **1088** meal category is executed by tapping on the arrows to decrease **1089** or increase **1090** the calorie (kcal). The EAR for a selected mealtime category is initially displayed **1091**, but changes to ADJ when the EAR is adjusted, including a change in the background color to convey a clear distinction between EAR and ADJ. If no changes are made to the EAR, the EAR reflected in field **F-2** remain unchanged **1092**. If EAR calories (kcal) adjustments were made, a second column in the portion menu **1071** in field **F-2** **1093** is created, showing next to the EAR the adjusted ADJ in line with pre-established plurality of calculations based on the prevailing reference data available and drawn from the health and wellness module **1075**. The portioning diet plan can be further customized making adjustments to individual dietary portions for the highlighted mealtime category **1085**. Making adjustments to a plurality of dietary portions is executed by selecting a single dietary portion **1094** within an interactive dietary portioning graph tool **1095** displayed in field **F-7**, displaying initially a plurality of portioning columns that reflect the relevant EARs complete with numerical and colored icon indicators. The relevant guiding text information **1096** displayed in field **F-3**. The selected dietary portion within interactive dietary portioning graph tool **1095** is highlighted **1097**. The Initial display of the interactive dietary portioning graph tool **1095** comprising of a plurality of categories, including carbohydrates, protein, sugars, total fat, saturated fat, sodium, dietary fibre is linked to the nutrition type function tab **1098** in field **F-5/F-8**. The display of the interactive dietary portioning graph tool **1095** can be changed in field **F-5/F-8**, selecting the ingredient type function tab **1099**, resulting in the display of starchy carbs, vegetables, protein, fruit etc.. A plurality of additional nutrition type categories **1098** can be added during customization, illustrated exemplarily as **1100**. The CCOS **1** provides for a summary educational information **1101** relevant to the dietary portioning. When a dietary portion is in the highlighted **1097** within the interactive dietary portioning graph tool **1095**, an interactive adjustment tool **1102** is displayed in field **F-7**, illustrated exemplarily as **1103**. It provides for dual functions. Portions can be individually adjusted **1104** by selecting a quick portion icon, illustrated exemplarily as **1105** to increase or decrease a selected dietary portion, or the plus

1106 and minus 1107 function tabs can be used to increase or decrease the selected dietary portion. The interactive dietary portioning graph tool 1095 updated automatically, and guiding text information for each selected dietary portion in displayed 1096 in field F-3. If adjustments to portions are made, confirming 1108 creates a second column in the portioning menu 1071 in field F-2 1109 showing the adjusted ADJ intakes. The ADJ is updated in line with pre-established plurality of calculations based on the reference data available and drawn from the health and wellness module 1075. When no adjustment is made, the EAR in the portion menu 1071 in field F-2 remains unchanged 1110. When executing the save function 1111 in field F-4, the newly created portioning diet plan 1112 overwrites the blank portioning diet plan 1081. In operation, the CCOS 1 allows for the searching and retrieving of existing diet plans 1113. Retrieving an existing diet plans can be executed within the operation panel in field F-4 by entering a known dietplan name 1114, a suggestion dropdown function is provided. Retrieving an existing diet plans can also be executed by way of single date 1115, or date range 1115 and 1116, using the interactive calendar 1079. A search result is compiled in an interactive dropdown menu 1117 from which a particular diet plan can be selected 1118. When selected, the diet plan is loaded and displayed 1119. A retrieved diet plan can be renamed and duplicate 1120 using all existing setup parameters, or changes can be made, illustrated exemplarily as 1121, 1122, and 1123, and changes to the base data can be made 1124. A retrieved diet plan can also be deleted by the delete function tab 1125. An active portioning diet plan can also be reset 1126 to its original EAR setting. The suggest safe intake function tab 1127, results in the CCOS 1 adjusting the calorie (kcal) portioning to suggestions applying pre-established plurality of calculations based on the reference data available and drawn from the health and wellness module 1075 that are based on the provided base data under FIG. 16. The function tab 1128 changes the screen display to the screen display of FIG. 16 to allow changing the base data. A plurality of additional categories can be added during customization including vitamin and mineral specific categories, illustrated exemplarily as non-specified 1129 and 1130.

FIG. 19

Referring now to FIG. 19 illustrating a diagram of the Diabetics function 1131 of present invention of the CCOS 1. In operation, private 1132 and corporate 1133 member 1134 users 1135 and their respective sub-members 1136 can customize the estimated average requirement (EAR) for diabetics for a plurality of menu items to meet their personal diabetic dietary goals, necessities and requirements. Non-members 1137 cannot use this function. When the diabetics function tab 1131, is selected it brings member 1134 users 1135 to a screen display, indicated exemplarily as 1138. On the operation panel 1139 are a plurality of function tabs, illustrated exemplarily as calorie (kcal) and nutrition 1140, illustrated exemplarily under FIG. 17, a portioning function tab 1141, illustrated exemplarily under FIG. 18, a diabetic function tab 1142, illustrated exemplarily under FIG. 19, a budget function tab 1143, illustrated exemplarily under FIG 20, and an allergy function tab 1146, illustrated exemplarily under FIG. 21. The functions calories (kcal) and nutrition function 1140, portioning function 1141, and diabetic function 1142 can be linked 1147 so member 1134 users 1135 can receive more comprehensive information. To search for or create a personal diabetic diet plan, member 1134 users 1135 have a plurality of options. Illustrated exemplarily for this diagram a father 1148 being a private 1132 member 1134 can search for 1210, or establish a diabetic plan for his child 2 1153. In operation, illustrated exemplarily a father 1148, activates the diabetic function tab 1142 in the operation panel in field F-4. A plurality of member icons 1149,

comprising of the father **1150** as the main account holder, and the mother **1151** and two children **1152** and **1153** as the sub-members **1136** are displayed in field **F-6**, with the respective plurality of source data drawn from the health and wellness module **1154**. Exemplarily for this diagram, the sub-member **1136** icon of child 2 **1153** is selected **1155** to create, or a search **1210** for an existing diabetic diet plan **1113**. The selected member icon for child 2 **1153** is identified by a colored frame **1156**. In operation, a customized diabetic diet plan is initiated by activating the customize function tab **1157** that results in then display of the estimated average requirements (EAR) for daily calorie (kcal) and the prevailing daily reference nutrition intake (RNI) **1158** for child 2 **1153** within the interactive diabetic menu **1159**. The relevant source data derives from the ingredient module **1060** within the CCOS **1**, the personal data for child 2 **1153** derives from the membership module including a plurality of the relevant core data and calculations derive from the diabetes module **1161** within the CCOS **1**. In operation, the diet plan for child 2 **1153** is created by entering a new diabetic diet plan name into a text field **1162** using a virtual keyboard **1163**, and establish a single or plurality of days **1164** using an interactive calendar **1165** available in field **F-4**. The new diabetic diet plan is confirmed **1166**, resulting in the CCOS **1** to establish of a blank diabetic diet plan **1167** within child 2 **1153** sub-member **1136** account, awaiting further completion and saving **1208** in field **F-4**. The execution of confirm deactivates the active customize function. The blank diabetic diet plan **1167** can now be customized specifying the diabetic requirements for a single or plurality of mealtime categories **1169** that are displayed in field **F-9**. Diabetic customization of mealtime categories is executed by activating again the customize function **1168**, followed by selecting and moving a single or plurality of mealtime categories from in field **F-9** to field **F-10** **1169**, and further select a single mealtime category **1170** to be customized, which is then highlighted **1171**, and results in a changed display within the interactive diabetic menu display **1159** in field **F-2**, displaying now the EAR and RNI for the highlighted mealtime category **1172**. If no changes to the EAR of a selected mealtime category is made the EAR and RNI reflected in field **F-2** remain unchanged **1173**. Customization of the EAR of a highlighted mealtime category **1174**, illustrated exemplarily as a lunch mealtime category **1175** is executed by using the arrow functions tabs within the lunchtime mealtime category **1175** to decrease **1176** or increase **1177** the EAR. The suggested EAR **1178** for the selected lunch mealtime category **1175**, illustrated exemplarily as 1200 **1180** changes to the adjusted mealtime intake (AMI) when the suggested EAR is adjusted. When the EAR is adjusted, the interactive diabetic menu **1159** changes and adds a new column and displays also the AMI **1181**. The RNI in the interactive diabetic menu display **1159** remains unchanged, but starts blinking if the AMI adjustments exceeds the pre-set margin within the diabetic module **1161** within the CCOS **1** for the RNI. A mealtime category, illustrated exemplarily as a lunch mealtime category **1175**, can be further customized by determining the EAR of food **1182** and beverage **1183** in the same way. Any adjustment also includes a change in the background color of the selected mealtime function tabs **1178**, **1182** and **1183** to convey visible distinction between EAR and AMI. To close the customization of a mealtime categories the customize function tab is deactivated **1184**, and the CCOS **1** applies the plurality of diabetic mealtime settings **1178**, **1182**, **1183** to a plurality of selected food and beverage menu items during a menu item search. A diabetic diet plan can be further customized by making adjustments to the diabetic portioning of a highlighted mealtime category **1171**. Customization is executed by activating first the customize function **1185**. The interactive diabetic menu display **1159** within field **F-2** changes again, displaying now the EAR and RNI of the respective mealtime category dietary portion **1186**. The prevailing EAR and

RNI data is linked to an interactive piechart graphic tool **1187** displayed in field **F-7**. The interactive tool comprises of two pie charts **1188** and **1189**, both pie charts **1188** and **1189** reflecting first the EAR of a plurality of diabetic portions, illustrated exemplarily for pie chart **1188** as carbohydrates **1190**, dietary fibre **1191**, and total fats **1192**. The pie chart **1189** portioning can be selected **1193**, illustrated exemplarily for pie chart **1189**, adjusting exemplarily the said portions for carbohydrates **1194**, dietary fibre **1195**, and total fats **1196**, displaying in the interactive diabetic menu **1159** the updated portioning, reflecting EAR and AMI, with references to RNIs **1197**. Adjustments to a plurality of diabetic dietary portions, illustrated exemplarily as carbohydrates **1194**, dietary fibre **1195**, and total fats **1196**, can be executed using an interactive diabetic exchange tool **1198** that is displayed in field **F-6** when a single dietary portion in the pie chart **1189** is selected **1193** and highlighted **1199**. The CCOS **1** provides for summary educational information **1200** relevant to the selected diabetic portioning in field **F-3**. The interactive diabetic portion exchange tool is displayed **1198** provides for dual functions and allows for the exchange of a plurality of pre-set portionings **1201**. Selecting a pre-set portioning, illustrated exemplarily as **1202** will exchange the current portioning of carb **1190**, illustrated exemplarily in graph **1188** with the pre-set portioning **1202**, and the portioning of carb **1194** in graph **1189** is updated to the selected portioning **1202**. The data in the interactive diabetic menu **1159** is also updated, allowing clear understanding of the impact of adjustment with respect to EAR and RNI. A dietary portion can also be adjusted using the “plus” **1203** and “minus” **1204** function tabs to increase or decrease the selected dietary portion. Simultaneously, when the interactive diabetic exchange tool **1198** is displayed, an interactive glycemic index (GI) and glycemic load (GL) indicator and scale tool **1205** is also displayed in field **F-6**. Adjustment to the GI **1206** and GL **1207** can be made independently to set a GI **1206** and GL **1207** ceiling using the GI/GL scale tool **1205**, exemplarily for carb. **1194**. If no adjustments are made to the portioning, and no GI/GL is pre-set, the EAR and RNI remains unchanged **1206**. When a GI and GL ceiling is set, the CCOS **1** will filter out ingredients that exceed the pre-set carbohydrate GI/GL ceiling, with the option that when such said ingredient is selected, the portion for such said ingredient can be further adjusted. The GI/GL can be independently pre-set without pre-setting the portioning. In such case, the CCOS **1** to always take primarily the GI/GL pre-setting instruction when applying to menu item searches. Saving **1208** a new created diabetic diet plan **1209** overwrites the established blank diabetic diet plan **1167**. Applying the plurality of diabetic pre-settings can be done by activating the diabetic function on the menu panel, illustrated under **FIG.09/Ref 429**. In operation, the CCOS **1** allows for the searching and retrieving of existing diet plans **1210**. Retrieving an existing diabetic diet plans **1210** can be executed within the operation panel in field **F-4** by entering a known diabetic diet plan name **1211**, a suggestion dropdown function is provided. Retrieving an existing diet plans can also be executed by way of single date **1212**, or date range **1212** and **1213**, using the interactive calendar **1079**. A search result is compiled in an interactive dropdown menu **1214** from which a particular diet plan can be selected **1215**. When a selected, the diabetic diet plan **1215** is loaded and displayed **1216**, it can be renamed and duplicate **1217** using all existing setup parameters, changing part of or all settings of an existing diabetic diet plan **1217**. A retrieved and loaded **1216** diabetic diet plan can also be deleted by the delete function tab **1218**. In field **F-5** and **F-8** are a plurality of function tabs, comprising of a reset function tab **1219** that resets the mealtime EAR and the mealtime portioning to the original setting. When the mealtime suggestion function tab **2120** is selected, and the GI **1206** and GL **1207** is established, the CCOS **1**, uses the selected mealtime AMI **1181**, and calculates and adjusts within the diabetes module **1161** the respective portioning

within the interactive graphic tool **1187** to stay within the established GI **1206** and GL **1207** level. If the use portioning suggestion **1221** is selected the CCOS **1**, uses the customized portioning in the interactive diabetic exchange tool **1198** and calculates and adjusts within the diabetic module **1161** the respective EAR of the selected mealtime. Selecting the personal data function tab **1222** changes the screen display to the screen display of **FIG. 16** to make changes to the base data, with a revert function to arrive back to this screen. The use GI/GL for menu items function tab **1223** allows to go direct from customization of mealtime **1184** to the interactive GI/GL scale tool **1205**, adjust the GI **1206** and GL **1207** to meet personal goals and requirements and confirm **1224**. The CCOS **1** will then apply the established GI **1206** and GL **1207** levels to a plurality of menu items during a menu item search and a menu item order. A plurality of other functions tabs can be added during customization, illustrated exemplarily as **1225**.

FIG. 20

Referring now to **FIG. 20** illustrating a diagram of the Budget function **1226** of the CCOS **1**. In operation, private **1227** and corporate **1228** member **1229** users **1230** can customize a budget plan to establish budgets for a plurality of family members and employees. Non-members **1232** cannot use this function, unless on an adhoc basis during marketing drives only. When the budget function tab **1226** is selected, the CCOS **1** brings the member **1229** users **1230** to a screen display, indicated exemplarily as **1233**. On the operation panel **1234** within field **F-4** are a plurality of function tabs, illustrated exemplarily as calories (kcal) and nutrition **1235**, illustrated exemplarily under **FIG. 17**, a portioning function tab **1236**, illustrated exemplarily under **FIG. 18**, a diabetic function tab **1237**, illustrated exemplarily under **FIG. 19**, a budget function tab **1238**, illustrated exemplarily under **FIG. 20**, and an allergy function tab **1239**, illustrated exemplarily under **FIG. 21**. To search **1242** for or create a Budget plan, member **1229** users **1230** have a plurality of options. Illustrated exemplarily for this diagram a main member **1240** being a corporate **1228** member **1229** can search **1241** for, or establish a budget plan for a plurality of employees. Illustrated exemplarily a corporate **1228** member **1229**, being a main account holder **1240** establishes a budget plan for a plurality of employees, illustrated exemplarily as employee 1 **1242**, employee 2 **1243**, and employee 3 **1243**. When the main account holder **1240** activates the budget function tab **1238** in the operation panel in field **F-4**. A plurality of sub-member **1231** employee icons, comprising of employee 1 **1242**, employee 2 **1243**, and employee 3 **1243** are displayed **1244** in field **F-6**, with the respective plurality of source data drawn from the membership module **1245**. Exemplarily for this diagram, the sub-member **1231** icon of employee 1 **1242**, employee 2 **1243** is selected **1246** to create, or a search for an existing budget plan **1113**. The selected sub-member **1231** icons are identified by a colored frame **1247** and **1248**. In operation, a customized budget diet plan is initiated by activating the customize function tab **1249** in field **F-9**. When the customize function tab **1249** is activated, field **F-5** displays a plurality of options, comprising of a establish group function tab **1250** that allows for the establishment of a plurality of groups **1250**, exemplarily with different budget plans for different groups of employee levels. Groups are established by selecting first a plurality of employee **1246**, followed by activating the customize function tab **1249** in field **F-9**, followed by selecting the establish group function tab **1250**, followed by naming the group, using the virtual keyboard **1258**, followed by selecting confirm **1252**. The established groups, illustrated exemplarily as group 1 **1253**, and group 2 **1254** are displayed in field **F-3**. There is also a load group function tab **1255** and a revise group function tab **1256** that allows for the review and/or revising of

existing groups. Revising existing groups is executed by selecting first the load group function tab **1255**, groups are loaded in field **F-3**, exemplarily group 1 **1253** and group 2 **1254**, followed by activating customize **1249** in field **F-9**, followed by deselecting previously identified sub-member **1231** employees, followed by selecting confirm **1252**. In operation, a budget plan is created by entering a new budget plan name into a text field **1257** using a virtual keyboard **1258**, and establish a single or plurality of days **1259** using an interactive calendar **1260** available in field **F-4**. The new Budget plan is confirmed **1261**, resulting in the CCOS **1** to establish of a blank Budget plan **1262** within designated group account, illustrated exemplarily as group 1 **1253**, awaiting further completion and saving **1287** in field **F-4**. The execution of confirm deactivates the active customize function **1249**. The blank budget plan **1262** can now be customized specifying for a single or plurality of mealtime categories, by reactivating customize **1263** in field **F-9**. Customization of budgets for a plurality of mealtime categories is executed by activating the customize function **1263**, followed by selecting and moving a single or plurality of mealtime categories from in field **F-9** to field **F-10** **1264**. Selected mealtime categories are displayed **1265** in field **F-10**. Select a single mealtime category **1266** to be customized, which is then highlighted **1267**, and results in a partially changed display in field **F-4**, to provide for the customization **1268** of time **1269**. It will allow to set a time frame during which a selected mealtime is available and included in the budget plan. If no changes to time are made for a selected mealtime category there is no time limitation. A budget can now be established for a selected mealtime, illustrated exemplarily as a lunch mealtime category **1270**, can be further customized by determining the budget for food **1271** and beverage **1272** in the same way. Any adjustment also includes a change in the background color of the selected mealtime function tabs **1270**, **1271** and **1272** to convey visible distinction that a budget is devised. When a plurality of mealtime categories are selected, the total daily budget is displayed in field **F-10**. A search of a plurality of menus **1273**, selecting the search function tab **1274** in field **F-2** results in a change of display in field **F-2**, activating a search within the relevant restaurant module **1275** within the CCOS **1**, resulting in the search results displayed in field **F-2** comprising of a plurality of participating restaurant, illustrated exemplarily as restaurant 1 **1276** and restaurant 2 **1277**, the respective restaurant menus **1278** and **1279**, the respective personal menus **1280** and **1281**, and the respective special project menus **1282** and **1283**, listing only menu items that fall within the specified plurality of selected mealtimes **1267**, times **1269**, and budget framework **1270**, **1271**, **1272** of the said budget plan. The CCOS **1** allows for all suitable menu items to be included **1284**, or for a plurality of menu items to be selected **1285**. Deactivation of the “customize function tab **1286** closes the customization, and the budget plan can be saved **1287** and the new budget plan overwrites the established blank budget plan, with the option to instruct the CCOS **1** to send a daily **1288**, weekly **1289** or monthly **1290** use of budget report **1291** to a designated PUDI **1292**. Retrieving an existing Budget plans **1241** can be executed within the operation panel in field **F-4** by entering a known Budget plan name **1293**, a suggestion dropdown function is provided **1297**. Retrieving an existing diet plans can also be executed by way of single date **1294**, or date range **1294** and **1295**, using the interactive calendar **1296**. A search result is compiled in an interactive dropdown menu **1297** from which a particular diet plan can be selected **1298**. When a selected, the Budget plan **1298** is loaded and displayed **1299**, it can be renamed and duplicate **1300** using all existing setup parameters, changing part of or all settings of an existing Budget plan. A retrieved and loaded **1299** Budget plan can also be deleted by the delete function tab **1301**. In field **F-8** are a plurality of function tabs, comprising of a reset function tab **1302** that resets the budget plan to the original setting. Selecting the display

month budget **1303** displays in the calendar in field **F-7** all daily budgets within the respective calendar days, with the total budget displayed in a section of field **F-8**. Selecting display weekly budgets **1304** displays in the calendar in field **F-7** all daily budgets of the selected week within the respective calendar days, with the total budget displayed in a section of field **F-8**. Selecting budget **1305** displays in the calendar in field **F-7** all daily budgets of the created or selected budget, with the total budget displayed in a section of field **F-8**. Additional function tabs can be added during customization, illustrated exemplarily as **1306**.

FIG. 21

Referring now to **FIG. 21** illustrating a diagram of the allergy function **1307** of the CCOS **1**. In operation, private **1308** and corporate **1309** member **1310** users **1311** and their respective sub-members **1312** can customize an allergy plan to establish these allergies for a plurality of menu items. Non-members **1313** can use this function on an adhoc basis only. When the Allergy function tab **1307** is selected, the CCOS **1** brings the member **1310** users **1311** to a screen display, indicated exemplarily as **1314**. On the operation panel **1315** within field **F-4** are a plurality of function tabs, illustrated exemplarily as calorie (kcal) and nutrition **1316**, illustrated exemplarily under **FIG. 17**, a portioning function tab **1317**, illustrated exemplarily under **FIG. 18**, a diabetic function tab **1318**, illustrated exemplarily under **FIG. 19**, a budget function tab **1319**, illustrated exemplarily under **FIG. 20**, and an allergy function tab **1320**, illustrated exemplarily under **FIG. 21**. To search for or create an allergy plan, member **1310** users **1311** have a plurality of options. Illustrated exemplarily for this diagram, a private **1308** and corporate **1309** member **1310** users **1311** and their respective sub-members **1312** can search for **1321**, or establish an allergy plan under their own personal member **1310** or sub-member **1312** account. When a member **1310** users **1311**, illustrated exemplarily as **1322** and **1323** selects the allergy function tab **1320** in the operation panel in field **F-4**, field **F-6** displays **1324** their respective icon representation, illustrated exemplarily as **1325** and **1326**. Except for a private **1308** member **1310** users **1311** who established as parent a family member **1310** account. In such cases field **F-6** displays **1324** the member **1310** user **1311** and all sub-member **1312** users **1311**, illustrated exemplarily as **1327**, **1328**, **1329**, **1330**, allowing member **1310** users **1311** to establish an allergy setting for a sub-member **1312** user **1311**, exemplarily a parent for a child or another member of the family. Selection of an icon representation **1331** is executed, illustrated exemplarily for icon representation **1328**. A colored frame **1332** identifies the selected icon representation. The relevant data is drawn from the membership module **1338**. In operation, a customized allergy plan is initiated by activating the customize function tab **1333** in field **F-9**. A allergy plan is created by entering a new allergy plan name into a text field **1334** using a virtual keyboard **1335**. The new allergy plan is confirmed **1336**, resulting in the CCOS **1** to establish of a blank allergy plan **1337** within the selected **1332** sub-member **1312** users **1311** account, awaiting further completion and saving **1349** in field **F-4**. Executing confirm deselects the customize function. The blank allergy plan **1337** can now be customized, selecting allergies to be considered when the selected **1332** sub-member **1312** user **1311** searches for, and the CCOS **1** returns, the results of a plurality of menu items. Selection of allergies is executed by activating the customize function **1338**. A list of allergy groups are displayed **1339** in field **F-9**. Allergy ingredient groups have sub-ingredient groups **1340** and allergies under each ingredient group is displayed **1341**. A single or plurality of allergies can be selected **1342**, which are automatically displayed **1343** in field **F-10**. The confirm function tab **1344** saves the allergies as selected **1345**, and are now displayed **1346** in field **F-2** including relevant information below each selected allergy, and can

be further customized by determining to exclude all menu items **1347** that contain ingredients that represent an allergy concern, or only display a warning notification on the displayed ingredients **1348**, to allow inclusion of all menu items and the option to exchange of an ingredient. The allergy plan can now be saved **1349** in the selected **1332** sub-member **1312** users **1311** account, resulting in the overwriting of the previously established blank allergy plan **1337** within the member database module **1350**. In operation, when the selected **1332** sub-member **1312** user **1311** searches for a menu item, the CCOS **1** executes a plurality of functions and processes **1352** resulting in the exclusion of any menu item that contain an ingredient that represents an allergy concern **Ref. 1347**, or displays on the respective ingredient icons, illustrated exemplarily as **1352**, **1353**, and **1354** visible notifications by way of color code that the color coded ingredient is an allergy concern. Simultaneously, the menu item picture **1355** displays also an allergy notification if one ingredient within a plurality of ingredients is an allergy concern. The allergy notification on the displayed menu picture **1355** only disappears if no ingredient is an allergy concern. There is also a further backup process. During the cooking process, the CCOS **1** communicates wirelessly within the cooking instruction **1356** an allergy notification to the chefs SUDI **1357** and the cooking staff SUDI **1358**. A member **1310** user **1311** and sub-member **1312** user **1311** can receive education regarding allergies in field **F-7**, where a heading list of allergies is displayed **1359**. The source data derives from the CCOS **1** allergy database module **1360**. A single or plurality of heading can be selected **1361** and educational details are displayed below each heading **1362**, and a function tab **1363** allows to include a single or plurality of allergies to be included in a member **1310** users **1311** account

FIG. 22

Referring now to **FIG. 22** there is illustrated a diagram of the member help function **1364** of the CCOS **1**. In operation the member help function tab **1364** is for private **1365** and corporate **1366** member **1367** users **1368** and their respective sub-members **1369** users **1368** only. Non-members **1370** users **1368** cannot use this function. Member **1367** users **1368** can access the startup screen **1371**, illustrated exemplarily under **FIG. 07**, within a participating restaurant envelope **1372** using either the participating restaurant provided SRUDIs **1373** and MRUDIs **1374**, or their PUDIs **1375**. Member **1367** users **1368** can also access the startup screen **1371** from remote locations **1376** using a plurality of PUDIs **1377**. To access to the landing screen **1378**, illustrated exemplarily under **FIG. 09**, member **1367** users **1368** must login **1379** to receive a access. Non-members **1370** users **1368** can be allowed as guests **1380** during promotional marketing drives. When the help function tab **1364** is selected within the member panel **1381**, an icon list mirroring the plurality of icon subjects within the member panel display **1381** are displayed in a vertical scrollable menu **1382** in field **F-2**. When a single icon subject, illustrated exemplarily the "create my own" function tab is selected **1383**. An interactive and movable two-part pop window **1384** emerges that displays in the upper portion **1385** a plurality of main subjects **1386**. A single main subject, illustrated exemplarily main subject 2 **1387**, and a plurality of sub-subjects **1388**, illustrated exemplarily as sub-subject 1 **1389** and sub-subject 2 **1390** are displayed in the lower portion **1391**. When a sub-subject, exemplarily sub-subject 1 **1389** is selected, a plurality of information and guidance unfolds **1392** below the selected sub-subject 2 **1389**.

FIG. 23

Referring now to **FIG. 23** there is illustrated a diagram of the member sharing function **1393** of the present invention of the CCOS **1** that allows for the sharing of a plurality of menu items, restaurants, and restaurant locations, and submit a created menu item for competition. In operation the member sharing function tab **1393** is for private **1394** and corporate **1395** member **1396** users **1397** and their respective sub-members **1398** users **1397** only. Non-members **1399** users **1397** cannot use this function. Member **1396** users **1397** can access the startup screen **1400**, illustrated exemplarily under **FIG. 07**, within a participating restaurant envelope **1401** using either the participating restaurant provided SRUDIs **1402** and MRUDIs **1403**, or their own PUDIs **1404**. Member **1396** users **1397** can also access the startup screen **1400** from remote locations **1405** using a plurality of PUDIs **1406**. To access to the landing screen **1407**, illustrated exemplarily under **FIG. 09**, member **1396** users **1397** must login **1408** to receive a access. Non-members **1399** users **1397** can be allowed as guests **1409** during promotional marketing drives. When the member sharing function tab **1393** is selected within the member panel **1410**, field **F-2** displays a plurality of member **1396** contact **1411**, that are organized as family **1412** friends **1413** and colleagues **1414**. Non-member **1399** contacts **1415** can also be imported from a plurality of PUDIs **1416**. Member contacts **1411** are created and maintained within the membership module **1417** within the CCOS **1**. A single or plurality of contacts can be selected **1418**, followed by creating a text message **1419**. A text message can be created **1419** in field **F-6** **1420** comprising of a header and text message, using a virtual keyboard **1421**. A plurality of text templates **1422** can also be used for a text message **1420** by selecting a single template in field **F-7**, including an icon and numerical rating **1423**. Text templates are drawn from the marketing and services module **1424** within the CCOS **1**. There is also a standard menu item submission text template **1425** and a plurality of related message templates. Simultaneously the sender is identified **1426**. Activating the customize function tab **1427**, illustrated exemplarily under **FIG. 09/Ref:462** starts the submission process and field **F-2** changes, displaying a plurality of participating restaurants **1428**. A participating restaurant is selected **1429**. The display of field **F-2** changes and a plurality of menus, including the standard menu of the selected participating restaurant and a plurality of personal menus related to the selected restaurant, are displayed. A menu and a single or plurality of menu item are selected **1431**. A choice can be made in field **F-5**, to use the recommend function tab **1432** to recommend a selected participating restaurant **1429**, and include a single or plurality of menu items **1431**. A link to the selected participating restaurant **1429** and selected menu items **1431** is included and displayed in the message text. Using the submit function tab **1433** submits an own creation of a selected menu item **1431** for competition. A link to the own creation of a menu item and a plurality of other information, include the date and time of creation, place of creation, list of ingredients, price of menu item, and a plurality of health and wellness information. A location map **1434** can be included before the message is send **1435**. When a menu item was submitted for competition **1435**, the submitted menu items will be administered and evaluated by the head office **1436** and processed within in the marketing and services module **1437** within the CCOS **1**. Upon successful evaluation and approval for placement, the submitted menu item **1436** is added into the standard menu of participating restaurants, illustrated exemplarily as **1438** and **1439**, accessible within menu screen display, illustrated exemplarily under **FIG.09/Ref446**. Other member **1396** users **1397** and non-members **1399** users **1397** can use a simple icon and numerical rating to rate a plurality of submitted menu item **1436**. Rating results are compiled within the marketing and

services module **1437** and are subject to final valuation by the head office **1436** with subsequent announcement, and notification and reward allocation to the winner **1440**.

FIG. 24

Referring now to **FIG. 24** there is illustrated a diagram of the central segment of the landing screen **1441** of the present invention of the CCOS **1**, illustrated exemplarily under **FIG. 09/Ref 382**. Private **1442** and corporate **1443** member **1444** users **1445** their respective sub-members **1446** users **1445** and non-members **1447** users **1445** can use this functions. member **1444** users **1445** and non-members **1447** users **1445** can access the startup screen **1448**, illustrated exemplarily under **FIG. 07**, within a participating restaurant envelope **1449** using either the participating restaurant provided SRUDIs **1450** and MRUDIs **1451**, or their PUDIs **1452**. Member **1444** users **1445** and non-members **1447** users **1445** can also access the startup screen **1448** from remote locations **1453** using a plurality of PUDIs **1454**. To access to the landing screen **1441**, illustrated exemplarily under **FIG. 09**. Member **1444** users must login **1455** to receive a access. Non-members **1447** users **1445** are allowed as guests **1456**. The central segment **1457** comprises of a plurality of service function tabs and information displays, comprising of an administration function tab **1458**, a general help function tab **1459**, a logo function tab **1460**, a name display **1461**, a general search function tab **1462**, a call for service function tab **1463**, and a MRUDI and PUDI table and seat identification display **1464**. In operation, when the administration function tab **1458** is selected, a popup window of the service staff operation panel emerges **1465**, providing for a plurality of option, illustrated exemplarily as an exchange SRUDI or MRUDI function tab **1466**, that allows for the exchange of a SRUDI or MRUDI **1466** in the event of malfunction without the loss of information, exemplarily during menu item selection and customization. A diagnosing function tab **1467** that allows for a plurality of diagnostics in the event of malfunction. A recall function tab **1468** that allows for recalling of activities and review of such said activities to allow for comprehensive service assistance. Further function tabs can be added during customization, illustrated exemplarily as **1469**. Selecting the general "help" function tab **1459** results in the display of a help menu **1470** in field **F-2** displaying a plurality of main subjects under which sub-subjects unfold, illustrated exemplarily as **1471** and **1472**. When a main sub-subject is selected, exemplarily **1471**, a movable and scrollable two part popup window **1472**, displaying in the upper portion **1473** explanation **1474** to a selected main subject, exemplarily **1471**, and in the lower portion guiding text information **1475** related to the selected sub-subject, exemplarily **1472**. Selecting the general "search" function tab **1462** results in the display of a popup window search function **1476** allowing for a membership related search **1477**, and general search using an interactive alphabetic organized dropdown menu **1478** embracing a plurality of subjects. Selecting the call for service function tab **1463** results in the emerging of a movable popup window displaying a service option panel **1479** with a plurality of function tabs, requesting waiter service from a service staff **1480**, requesting assistance regarding the SRUDI, MRUDI, PUDI **1481**. A plurality of additional function tabs can be added during customization, illustrated exemplarily as **1482**. Selecting a function tab, **1480**, **1481**, **1482** results in a notification to predetermined SUDIs, illustrated exemplarily as **1483** and **1484**. Selecting the logo function tab **1460** inclusive of **1461** displays in field **F-6** summarized guidance for the use and application of the provided SRUDI, MRUDI, and in field **F-7** a list of a plurality of participating restaurants. There are also three plural purpose function tabs **1485**, **1486**, and **1487**. Each function tab **1485**, **1486**, and **1487** has a triple function. Selecting the center field **1488** of the shortlist function tab **1485**, adds a selected menu item to a shortlist

1489 in field **F-3**. A plurality of menu items can be short listed in **F-3** before making a final selection for ordering, customization and saving in a personal menu. Selecting value **1490** adds a plurality of added value menu item **1491** to a plurality of relevant selected menu items in shortlist **1492**. Individual menu items and their added value menu items can be selected and removed **1493** using the clear function tab **1494**. Menu items and relevant value added menu items can be selected **1495** for ordering **1496**. The shortlist function tab displays also the current menu items in a short list **1497**. The dinners function tab **1486** allows to invite a plurality of dinners by using the add function **1498** that results in the display of a popup window **1499** including an interactive seat selection display **1500** of a plurality of seats nearby, whereby invited seats are marked. Invitees can be deselected using the clear function **1501** diners of the invitee list. The dinner's function tab **1486** displays also the current dinners **1502**. There is also a view order function tab **1487**. Selecting the "view order" function **1503** results in the emerging of a popup window displaying all the details of the current order check **1504** applicable for members **1444** and non-members **1447** based on standard menu prices or for customized and created menu items based on prevailing individual ingredient pricing, with a plurality of further options **1505** to split a check **1506**, single check payment **1507**, including a plurality of payment options **1508**, including auto payment **1509** that automatically deducts the current order check **1504** using virtual non-cash payment, or a plurality of other available methods of payments **1510**. Member **1444** users **1445** will receive the current order check in their member accounts **1511**, and request that a copy is send to their PUDI **1512**. When payment is made the order is placed **1513**. Payment **1514**, without reviewing the detailed order check **1504** can also be made, accepting the current total amount changed **1515**.

FIG. 25

Referring now to **FIG. 25** there is illustrated a diagram of the health and wellness segment of the landing screen **1516** of the present invention of the CCOS **1**, illustrated exemplarily under **FIG. 09/Ref 383**. Private **1517** and corporate **1518** member **1519** users **1520** their respective sub-members **1521** users **1520** and non-members **1522** users **1520** can use this functions, with limitations for non-members **1522** users **1520**. Member **1519** users **1520** and non-members **1522** users **1520** can access the startup screen **1523**, illustrated exemplarily under **FIG. 07**, within a participating restaurant envelope **1524** using either the participating restaurant provided SRUDIs **1525** and MRUDIs **1526**, and member **1519** users **1520**, and during promotion and marketing drives, also non-members **1522** users **1520** can or their own PUDIs **1527**. Member **1519** users **1520** and non-members **1522** users **1520** can also access the startup screen **1523** from remote locations **1528** using a plurality of PUDIs **1529**. To access to the landing screen **1516**, illustrated exemplarily under **FIG. 09**, member **1519** users **1520** must login **1530** to receive a access. Non-members **1522** users **1520** are allowed as guests **1531**. On the landing screen is a health and wellness panel **1532** with a plurality of function tabs including a kcal function tab **1533**, a nutrition function tab **1534**, a portioning function tab **1535**, a diabetic function tab **1536**, a budget function tab **1537** and an allergy function tab **1538**. Each function tab allows for activation **1539** and deactivation **1540**, providing for a plurality of function and display combination. When activated, a popup menu of an option manual emerges **1541** that allows, when authorized, the setting and/or adjustments to personal settings **1543**, and using displayed interactive tools to make adjustments to the respective functions and processes illustrated exemplarily under **FIG 17 1543**, **FIG 18 1544**, **FIG 19 1545**, **FIG 20 1546**, including the allergy function. When no adjustments are made, and a menu item **1547** is selected and displayed in field **F-6** the CCOS **1** generates

simultaneously a plurality of ingredients included in the selected menu item **1547** in the standard ingredient display **1548** in field **F-4** illustrated exemplarily as interactive menu item ingredient 1 **1549**, menu item ingredient 2 **1550**, and menu item ingredient 3 **1551**. Depending on the selection of function tabs **1533**, **1534**, **1535**, **1536** and **1538** or any combination thereof, the interactive surfaces of the respective menu item ingredient function icons **1549**, **1550**, and **1551** display a variety and combination of picture and information, illustrated exemplarily as simple kcal and nutrition **1552**, kcal, nutrition, and portioning **1553**, or diabetic portioning and GI/GL display **1554**. Said ingredient function icons **1549**, **1550**, and **1551** can also be enlarged by holding a menu item ingredient icon, resulting in a popup window display of an enlarged menu item ingredient icon. The same principle applies for the plurality of sub-ingredient categories of main ingredient categories, illustrated exemplarily for subingredient category A **1555**, subingredient category B **1556**, and subingredient category C **1557** under main ingredient category 2 **1558**. The relevant complete health and wellness information related to a selected menu item **1559** are displayed in field **F-7**. On the health and wellness panel **1532** is also a budget function tab **1537** that can be activated **1560** and de-activated **1561**. When activated **1560**, a popup menu of an option manual emerges **1562** that allows, when authorized, adjustments to personal settings **1563**, using the respective functions and processes illustrated exemplarily under **FIG. 20** **1564**. A portion of the option manual **1562** displays the prevailing budgets, illustrated exemplarily for breakfast **1565**, lunch **1566**, and dinner **1567**, and the total budget for the current day **1568**. There is also a currency function tab **1569**. When activated **1570**, a popup menu of an option manual emerges **1570** and a currency can be selected **1572**, that activates a realtime currency exchange tool within the currency module **1573**, resulting in displaying the selected currency **1574** in the option manual popup window **1562** for breakfast **1565**, lunch **1566**, and dinner **1567**, and for the selected and displayed menu item **1547** price information **1575** in field **F-5**. The help function **1576**, when activated **1577** follows the same principal as the help function addressed under **FIG. 22** **1578**.

FIG. 26

Referring now to **FIG. 26** there is illustrated a diagram of the cuisine option **1596** and key ingredient option **1597** of the landing screen **1579** of the present invention of the CCOS 1, illustrated exemplarily under **FIG. 09**. Private **1580** and corporate **1581** member **1582** users **1583** their respective sub-members **1584** users **1583** and non-members **1585** users **1583** can use this functions with limitations for non-members **1585** users **1583**. member **1582** users **1583** and non-members **1585** users **1583** can access the startup screen **1586**, illustrated exemplarily under **FIG. 07**, within a participating restaurant envelope **1587** using either the participating restaurant provided SRUDIs **1588** and MRUDIs **1589**, and non-members **1585** users **1583** during promotional and marketing drives, their own PUDIs **1590**. Member **1582** users **1583** and non-members **1585** users **1583** can also access the startup screen **1586** from remote locations **1591** using a plurality of PUDIs **1592**. To access to the landing screen **1579**, member **1582** users **1583** must login **1593** to receive a access. Non-members **1585** users **1583** are allowed as guests **1594**. On the landing screen **1579**, illustrated exemplarily under **FIG. 09** is a health and wellness segment **1595** and a cuisine option function tab **1596** and a key ingredient option function tab **1597**. The shown diagram illustrates a plurality of option a member **1582** users **1583** and non-members **1585** users **1583** can proceed. Option 1 **1598** display applies when accessing the landing screen **1579** remotely **1591**, and illustrates exemplarily the display in field **F-2** of a plurality of participating restaurants standard menus,

illustrated exemplarily as restaurant 1 **1599** and restaurant 2 **1600**, and the plurality of relevant personal menus **1601** from which a single or plurality of menu items can be selected **1602**. Option 2 **1603** display applies when accessing the landing screen **1579** from within a participating restaurant, and illustrates exemplarily the display in field **F-2** of a single participating restaurants standard menu, illustrated exemplarily as restaurant 3 **1604** and the plurality of relevant personal menus **1605** from which a single or plurality of menu items can be selected **1606**. Member **1582** users **1583** and non-members **1585** users **1583** can proceed by option 1 **1598** or option 2 **1603** to make their menu item selection **1602** or **1606**, or by including the activation of the cuisine option function tab **1596** and/or the key ingredient option function tab **1597** that results in field **F-9** in the display of available main cuisine options **1607** and in field **F-10** in the display of available key ingredient options **1608**. The CCOS 1 allows for a plurality of drill down levels. When a main cuisine option **1607**, illustrated exemplarily as asia as a global region **1609** is selected, the display in field **F-9** changes, displaying now a plurality of relevant countries **1610** relevant to the asian region **1609**; and when a country **1610** is selected, illustrated exemplarily as Thailand **1611** the display in field **F-9** changes again displaying now a plurality local regions within Thailand **1612**; and when a local region **1612** is selected the display in field **F-9** changes again, displaying now a plurality of cities **1613** within Thailand **1611** and the selected local region **1612**. Each country **1611**, local regions **1612** and cities **1613** are associated with distinctive and unique flavour categories that are progressively displayed in field **F-4** that comprising of available ready mixed flavours including spice flavours, paste flavours, and sauce flavours, illustrated exemplarily as **1614**, **1615**, **1516**, and **1617**. A single or plurality of flavours can be selected. The CCOS 1 automatically refines and updates the list of participating restaurants and their standard menus in field **F-2**, narrowing down the restaurants and their respective menus down to specific menu items that match the selected cuisine option categories. The same can be executed to specify key ingredient options **1608**, illustrated exemplarily for pork **1618**, pork shoulder cut **1619**, minced **1620**, lean **1621**. The CCOS 1 also allows under option 1 **1598** or option 2 **1603** to select first a menu item **1622**, place a selection of menu items **1622** into a shortlist **1623** using the function, illustrated exemplarily under **FIG. 09/Ref; 410**, and customize **1624** the selected menu items using either the ingredient select and exchange function **1625**, illustrated exemplarily under **FIG. 27** or the cuisine option **1607** and key ingredient option **1608**. In operation, when a new or customized menu item is created **1626**, non-members **1627** and proceed with the ordering **1628** for dine-in **1629** service, for delivery **1670**, or collection **1671** at the counter **1672** or at the 24 hour dispenser **1673**. Member **1582** users **1583** (members) **1674** can save **1675** new or customized menu item **1626** in their respective personal menus **1676** and select **1677** the saved **1675** menu items from their personal menus **1676** for ordering **1628** for dine-in **1629** service, for delivery **1670**, or collection **1671** at the counter **1672** or at the 24 hour dispenser **1673**. The plurality of relevant source data and information for the plurality of exemplarily cuisine options **1607**, plurality of exemplarily key ingredient options **1608**, and flavour categories, illustrated exemplarily as **1614**, **1615**, **1616** and **1617** derive **1678** from the execution ingredient and inventory and database module within the CCOS 1.

FIG. 27

Referring now to **FIG. 27** there is illustrated a diagram of the ingredient exchange segment of the present invention of the CCOS 1, illustrated exemplarily under **FIG. 09**. When selecting a menu item, illustrated exemplarily as **1679**, displayed in field **F-6** can be customized by

removing, exchanging, or adding a plurality of ingredients. In operation, when a selected menu item is displayed **1679** in field **F-6** a plurality of ingredients contained within the selected menu item **1679**, are displayed in field **F-4** in form of interexchangeable ingredient function tabs, illustrated exemplarily as, menu item ingredient 1 **1680**, menu item ingredient 2 **1681**, menu item ingredient 3 **1682**, menu item ingredient 4 **1683**, menu item ingredient 5 **1684**, and menu item ingredient 6 **1685**. There are a plurality of function tabs in field **F-8** that that can be selected **1686** to change the display on the surface information on the interexchangeable ingredient function tabs, illustrated exemplarily as enlarged kcal and nutrition display **1687**, as enlarged kcal, nutrition and portion display **1688**, and as enlarged diabetic, portioning and GI/GL display **1689**. There are also a plurality of information and function tabs **1690** in field **F-5**, comprising of the menu price **1691** and the menu item name **1692** of the selected menu item **1679**, and menu item **1679** rating information **1693**. A plurality of additional information and function tabs, illustrated exemplarily as **1694** can be added during customization. The relevant detailed health and wellness data and information relevant to the selected menu item **1679** are also displayed **1695** in field **F-7**, allowing for a plurality of display option that can be selected using a plurality of responding function tabs, illustrated exemplarily as **1696** and **1697**. A single or plurality of menu item ingredients, illustrated exemplarily as **1680**, **1681**, **1682**, **1683**, **1684**, **1685** can be exchanged and/or removed **1698**. Exchange and/or removal is executed exemplarily for menu item ingredient 2 **1681** by holding and sliding menu item ingredient 2 **1681** onto the ingredient removal and exchange field **1699**. A single or plurality of new or replacement ingredients, illustrated exemplarily as exchangeable sub-ingredient category C **1715** can be inserted **1700** into the menu item ingredient list **1701** by the same hold and slide movement **1702**. To execute the removal and insert the ingredient select and exchange function tab **1703** must be activated, results in the display of the plurality of main ingredient categories in field **F-4**, illustrated exemplarily as main ingredient category 1 **1704**, main ingredient category 2 **1705**, main ingredient category 3 **1706**, main ingredient category 4 **1707**, main ingredient category 5 **1708**, and main ingredient category 6 **1709**. A main ingredient category can be selected, illustrated exemplarily as main ingredient category 3 **1706**, and the relevant plurality of ingredient sub-categories, illustrated exemplarily as main ingredient sub-category 3-1 **1710** emerges within the second line **1711**. A further plurality of main ingredient sub-categories, illustrated exemplarily as main ingredient sub-category 3-2 **1712** can be added when required during customization. The exchangeable ingredient category is the third level being sub-ingredient categories **1713**, illustrated exemplarily as sub-ingredient category A **1714**, sub-ingredient category B **1715**, sub-ingredient category C **1716**, sub-ingredient category D **1717**, sub-ingredient category E **1718**, sub-ingredient category F **1719**, and, sub-ingredient category G **1720**. The source data derives from the ingredient module **1721** within the CCOS **1** in line with the ingredient organization structure, illustrated exemplarily under FIG. 55 **1722**. There is also in field **F-4** a non-preferred ingredient field **1723** and a preferred ingredient field **1724**. Ingredients from the list of the selected menu item **1679**, illustrated exemplarily as menu item ingredient 4 **1683** and menu item ingredient 5 **1684**, and sub-ingredient category E **1718** and sub-ingredient category F **1719** can be moved by hold and slide action on to the respective fields **1723** or **1724**. The CCOS **1** will capture record the information under the relevant member users personal data, within the wellness and health module **1725** and automatically list menu items that contain non-preferred ingredients last, and menu item that contain preferred ingredient first. There is also an allergy field **1726**. Ingredients from the list of the selected menu item **1679**, illustrated exemplarily as menu item ingredient 6 **1685** and sub-ingredient category G **1720** can be moved by hold and slide action

on to the allergy field **1723**. The CCOS **1** will capture record the information under the member users personal data within the wellness and health module **1725** and automatically exclude menu items that contain menu that contain allergy marked ingredients.

FIG. 28

Referring now to **FIG. 28** there is illustrated a diagram of the standard menu segment of the landing screen **1727** of the present invention of the CCOS **1**, illustrated exemplarily under **FIG. 09/Field F-1**. Private **1728** and corporate **1729** member **1730** users **1731** their respective sub-members **1732** users **1731** and non-members **1733** users **1731** can access the startup screen **1734**, illustrated exemplarily under **FIG. 07**, within a participating restaurant envelope **1735** using either the participating restaurant provided SRUDIs **1736** and MRUDIs **1737**, or their PUDIs **1738**. Member **1730** users **1731** and non-members **1733** users **1731** can also access the startup screen **1734** from remote locations **1739** using a plurality of PUDIs **1740**. To access to the landing screen **1727**, illustrated exemplarily under **FIG. 09**, member **1730** users **1731** must login **1741** to receive a access. Non-members **1733** users **1731** are allowed as guests **1742**. The standard menu panel consists of a plurality of function tabs comprising of a triple function home function tab **1743**. Selecting home **1744** returns to the landing screen **1727**. Selecting forward **1745** or backward **1846** movement allows moving one step forward or backward. Selecting the mealtime function tab **1747** displays in field **F-2** a plurality of mealtime categories **1748**, also illustrated exemplarily under **FIG. 10/Ref; 555**. Selecting the shortcut function tab **1749** displays in field **F-2** sets of shortcut displays **1750** for members **1730** users **1731** and for non-members **1733** users **1731**. The respective displays **1750** and **1751** display an assemblment of shortcut functions tabs on a pre-named **1752** pane **1753**. Member **1730** users **1731** can create new panes **1754** or rename existing panes **1755** in field **F-3**, and place a plurality shortcut function tabs onto a plurality of panes. Illustrated exemplarily, the placement or moving of shortcut function tabs is executed by pressing down a single or plurality of functions tabs until the function tabs change color, illustrated exemplarily for member reservations **1756**, quick service reservation **1757**, quick service to go **1758**, and food delivery **1759**, followed by activating the customize function tab **1760** in field **F-9**, illustrated exemplarily under **FIG.09/Ref 462**; followed by pressing down on the new and empty order and delivery pane **1761** in field **F-2** until the pane changes color; followed by de-activating the customize function **1762** in field **F-9**, which automatically results in the placement of the selected shortcut function tabs **1756**, **1757**, **1758**, and **1759** on the "order and delivery pane" **1760**, illustrated exemplarily by **1764**, **1765**, **1766**, and **1767**. Non-member **1733** users **1731** cannot customize. Selecting the daily special function tab **1768** displays in field **F-2** a plurality of daily specials categories **1769**. Selecting the dish category function tab **1770** displays in field **F-2** all available menu items by dish category **1771**, in a plurality of color backgrounds to distinguish between a plurality of mealtimes **1748** and also daily specials **1769**. Selecting the startup screen function tab **1772** returns the screen to the startup screen, illustrated exemplarily under **FIG. 07**.

FIG. 29

Referring now to **FIG. 29** there is illustrated a diagram of the shortcut menu function process, exemplarily for the pre-order quick service reservation shortcut **1773**, illustrated exemplarily under **FIG. 28/Ref 1765**. Private **1774** and corporate **1775** member **1776** users **1777** their respective sub-members **1778** users **1777** can use this function to pre-screen potential restaurants for seat availability on an specific date and time before selecting a final restaurant

choice, and make a pre-order of menu items. Member **1776** users **1777** can use their PUIDs **1779** to access the startup screen **1780**, illustrated exemplarily under **FIG. 07**, from a remote location **1781**. To access the landing screen, illustrated exemplarily under **FIG. 09**, and login **1782** to receive a access to the landing screen **1783**, illustrated exemplarily under **FIG. 09**.

5 Non-members **1784** users **1777** are allowed as guests **1785**, but cannot use this function unless during introduction and marketing drives. In operation when the quick service reservation shortcut **1773** is selected, a plurality of participating restaurants **1786** are displayed in field **F-2**. A plurality of restaurants are displayed, illustrated exemplarily as restaurant 1 **1787** restaurant 2 **1788**, restaurant 3 **1789**, and restaurant 4 **1790**. A single or

10 plurality of restaurants, illustrated exemplarily as restaurant 1 **1787** restaurant 3 **1789**, and restaurant 4 **1790** are selected and identified by a colored frame. The customize function tab **1791** is activated and a popup window emerges **1792**. A date is selected **1793**, using an interactive calendar **1794**, a time is determined **1795**, using an interactive number pad **1796**, providing an estimated arrival time (ETA) **1797** and the estimated duration of stay (EDS) **1798**.

15 Dining preferences can be selected from a plurality of dropdown menu preferences, illustrated exemplarily as cuisine type **1799** embracing the relevant cuisine types, illustrated exemplarily under **FIG.26**, ambiance **1800** using criteria established based on a plurality of pre-set standards, location **1801** that can include an interactive map, and price range **1802** based on menu pricing of a plurality of participating restaurants. Additional preferences **1803** can be

20 added during customization like for seating or table selection from an interactive restaurant table and seat floor plan. When the search function tab **1804** is selected, the front of house module of the relevant restaurants within the CCOS **1** reviews a plurality of relevant data from a plurality of selected participating restaurants **1787**, **1789** and **1790**, and filters out the potential restaurants that meet the particular required criteria. Search results **1805** are

25 displayed **1806** in field **F-2**, comprising of the potential restaurants, illustrated exemplarily as restaurant 1 **1807** (**1787**) and restaurant 4 **1808** (**1790**) including any personal menus related to the said restaurants **1807** and **1808**, illustrated exemplarily as set of personal menu **1809** and **1810**. Unsuccessful search results **1811** displays again the original display in field **F-2** with initially selected restaurants **1787** and **1789** and **1790** identified, allowing for a revised

30 search. A particular restaurant can be selected, illustrated exemplarily as restaurant 4 **1812**. Upon selection, the front of house module of the relevant restaurants within the CCOS **1** executes a booking for the ETA **1797** for the EDS **1798** at the selected **1812** restaurant 4 **1808**. The booking is established and confirmed **1813** to the member **1776** users **1777** PUID **1779** and to the restaurant 4 **1814** and reflected on the relevant screens on a plurality of relevant SUDIs **1805** of the said selected restaurant **1814**, including a plurality of relevant data and information related to the particular member **1776** user **1777** who made the pre-order quick service reservation. A single or plurality menu item can be selected **1816** from the standard restaurant menu **1817** and/or from the plurality of personal menus, illustrated exemplarily as **1818**, including customization of menu items, illustrated exemplarily under **FIG.**

40 **26**. When menu items are selected **1819** the order can be viewed, placed, and payment executed **1820** using the triple function tabs, illustrated exemplarily under **FIG. 09/Ref 412, 423 and 424**. The customize function tab is automatically de-activated **1821** upon payment **1822**. Upon payment **1822**, restaurant 4 **1814** receives the order **1823** for menu items that are tied to the said reservation **1813**, and is placed but held **1824** in the relevant SUDIs involved

45 in the preparation and cooking of the menu items, illustrated exemplarily as **1825** and **1826**. A table and/or seat booking is also scheduled and established **1827**, illustrated exemplarily under **FIG. 4/Ref; 191** and **FIG. 5/Ref;242**, and confirmed back to the member **1776** users

1777 PUDI 1779 . Upon arrival 1828 at the said restaurant 4 1829 the said member 1776 user 1777 has three option to proceed. Either directly to the seat and/or table 1830, the customer service counter 1831, or to the entrance column 1832. When the member 1776 users 1777 goes directly to the designated table 1827 and hold the PUDI 1779 in close proximity to the sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices, illustrated exemplarily under FIG. 4/Ref; 166, 167, 168 or 169. The member 1776 users 1777 arrival 1828, reservation 1813, and order of menu items 1823 is identified 1833 and its retrieval service and instructions communicated 1834 to the relevant SUDIs, illustrated exemplarily as 1825 and 1826. Menu items are prepared and served 1835. When the member 1776 users 1777 goes to the customer service counter 1831, the member 1776 users 1777 can place the PUDI 1779 on a designated a sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices, illustrated exemplarily under FIG. 4/Ref; 166, 167, 168 or 169. The member 1776 users 1777 arrival 1828, reservation 1813, and order of menu items 1823 is identified 1833 on the SUDI screen of the customer service counter. The member 1776 users 1777 is guided to the designated seat and/or table 1827. The retrieval of the order of menu items 1823 is executed and service instructions communicated 1834 to the relevant SUDIs, illustrated exemplarily as 1825 and 1826. Menu items are prepared and served 1835. When the member 1776 users 1777 goes to the entry service column 1832 and holds the PUDI 1779 in close proximity to the sets of customizable and programmable waterproof and +95° Celsius heat resistant NFCs/RFIDs devices at the entry service column 1832, the member 1776 users 1777 arrival 1828, reservation 1813, and order of menu items 1823 is identified 1833 and its retrieval service and instructions communicated 1834 to the relevant SUDIs, illustrated exemplarily as 1825 and 1826. Menu items are prepared and served 1835. Upon having consumed the menu items the said member 1776 users 1777 can leave 1836 without having to wait for payment service.

FIG. 30

Referring now to FIG. 30 illustrating exemplarily a startup screen 1837 for a plurality of SUDIs, illustrated exemplarily under FIG. 01 and FIG. 03, and the online landing screens for a plurality of third parties, illustrated exemplarily under FIG. 01 providing a plurality of staff users and third party users the mode to receive access to the CCOS 1. The startup screen 1837, when activated, identifies the CCOS 1 brand by name and logo 1838, and allows for the display of the name of the said participating restaurant 1839. The help function tab 1840 provides assistance within the interactive message board 1841 allowing for the selection of a plurality of main and sub-categories. The language select option 1842, although visible, can only be used through the administration function 1843 to set the primary language. The login function 1844 is for third party users only, allowing for the customization and implementation of a plurality of login protocols that can be adapted for login development evolutions over time. The message board can display a plurality of messages and information targeted to particular third parties during the login 1844 process.

FIG. 31

Referring now to FIG. 31 illustrating exemplarily a typical SUDI landing screen 1845 for the head office 1846, subsidiary, representation offices, or branch offices 1847, participating restaurants 1848, illustrated exemplarily under FIG. 01 and FIG. 03, and the online landing screen for a plurality of third parties 1849, illustrated exemplarily under FIG. 01. A typical SUDIs landing screen 1850 comprises of a station segment select 1851, an administration

and service segment **1852**, a staff and station segment **1853**, a customizable multi purpose segment **1854**, a customizable information and function tab segment **1855**, and a customizable main menu segment **1856**. Within the station select segment **1851**, illustrated exemplarily as field **F-1** is a fixed segment **1857** and a horizontal scrollable segment **1858**. For restaurant used SUDIs, the fixed segment **1857** is designated for the manager and chef function tab **1859**, and the horizontal scrollable segment **1858** is designated for a plurality of station function tabs, illustrated exemplarily as a delivery station function tab **1860**, illustrated exemplarily under **FIG. 03/Ref; 158** and **FIG. 41**, a preparation and portioning station function tab **1861**, illustrated exemplarily under **FIG. 03/Ref; 140** and **FIG. 39**, a pre-cooking station function tab **1862**, illustrated exemplarily under **FIG. 03/Ref; 142** and **FIG. 37**, a chiller storage station function tab **1863**, illustrated exemplarily under **FIG. 03/Ref;147**, a coffee roasting station function tab **1864**, illustrated exemplarily under **FIG. 03/Ref; 131**, a baking station function tab **1865**, illustrated exemplarily under **FIG. 03/131**, a pot and dishwashing station function tab **1866**, illustrated exemplarily under **FIG. 00/Ref; 152**, a staff entry/exit station function tab **1867**, illustrated exemplarily under **FIG. 03/Ref 154**, a freezer storage station function tab **1868**, illustrated exemplarily under **FIG. 03/Ref;147**, a dry storage station function tab **1869**, illustrated exemplarily under **FIG. 03/Ref;147**, a front of house storage station function tab **1870**, illustrated exemplarily under **FIG. 03/Ref;123** and **124**, a wine storage station function tab **1871**, illustrated exemplarily under **FIG. 03/Ref;147**, a general storage station function tab **1872**, illustrated exemplarily under **FIG. 03/Ref;147**, a bakery storage station function tab **1873**, illustrated exemplarily under **FIG. 03/Ref;133**, a chef station function tab **1874**, illustrated exemplarily under **FIG. 03/145**, a frontline cooking station function tab **1875**, illustrated exemplarily under **FIG. 03/Ref;144**, and a teppanyaki frontline cooking station function tab **1876**, illustrated exemplarily under **FIG. 03/Ref; 150**. Additional function tabs can be added during customization, illustrated exemplarily as **1877**. Within the administration and service segment **1852** and within a fixed segment **1878** in field **F-2** is an administration function tab **1879**, a help function tab **1880**, space for a logo and date and time **1881**, a search function tab **1882**, and please assist function tab **1883** that can be pre-set, involving the administration function **1884** to send, upon selection **1885** a request for assistance to a single to plurality of SUDIs, illustrated exemplarily to the manager **1886**, the assistant manager **1887**, the supervisor **1888**, the chef **1889**, and the assistant chef **1890**, or any additional SUDIs **1891** is added during customization. Within the staff and station segment **1853** and within the horizontal scrollable **1892** in field **F-3** is the authorized staff ID display for any particular SUDI, illustrated exemplarily as staff 1 **1893**, staff 2 **1894**, and staff 3 **1895**. The related shift ID and working times for a shift is also displayed **1896**, **1897**, and **1898**. Under the same staff and station segment **1853** within a fixed and vertical scrollable field **1899** of field **F-4**, the station ID **1900** is in the fixed portion of the field **1899**, and the respective authorization levels **1901** relevant staff, displayed in field **F-3**, is displayed in the vertically scrolled field portion **1902** of field **F-4**, with any pending authorization highlighted **1903**. Within the customizable multi purpose segment **1854** and within the multi segment vertical scrollable fields **1904** in field **F-5**, is a field that is customizable for information and function tabs as maybe required for a particular station, allowing for a single or plurality of dividable vertical display fields and function tabs **1905**. Within the customizable display and function segment **1855** and within the horizontal scrollable segment **1906** of field **F-6** is space for a plurality of function specific function tabs **1907**, whereby the fixed segment **1908** in field **F-7** is designated to display a plurality of information **1909**. Within the customizable main menu segment **1856** and within the vertical scrollable segment **1910** in field **F-8** is the expandable display for a

plurality of menu function tabs, illustrated exemplarily as individual empty and customizable function tabs **1911**, that allows also for the display or icon symbols **1912** to identify particular functions. The center field **F-9** also allows for a single or plurality of dividable vertical display fields, exemplarily illustrated as **1913**.

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FIG. 32

Referring now to **FIG. 32** illustrating exemplarily a typical SUDI landing screen **1914** for the managers SUDI, illustrated exemplarily under **FIG. 03/Ref: 155**. The upper segment **1915**, is comparable to the illustrated exemplary typical landing screen under **FIG. 30**. Within the multi segment vertical scrollable fields **1916** is a customizable field displaying customizable function tabs linked to the relevant plurality of the main menu function tabs within the vertical scrollable segment **1917**. Within the horizontal scrollable segment **1918** is the space for a plurality of action specific function tabs **1919**, whereby the fixed segment **1920** is designated to display a plurality of incoming alerts and notifications **1921** from a plurality of other SUDI stations. Within the vertical scrollable segment **1922** is the display for a plurality of main menu function tabs for the managers SUDI station, illustrated exemplarily as login/logout function tab **1923** that, when selected, allows for a log-in/logout protocol to be completed in field **F-5**. The summary data function tab **1924**, when selected, opens a plurality of categories, illustrated exemplarily as financial summary **1925**, cover summary **1926**, and trend summary **1927**, that can be jointly or individual selected. Each said category is linked to a plurality of customizable specific select function tabs **1928** in field **F-5** that automatically align themselves conforming to the selection made under the respective category function under the summary data **1924**, providing a plurality of display options that transform and adjust in field **F-9**, illustrated exemplarily for a cover summary of the fast food segment **1930**. The display in field **F-9** can be printed **1931**, can be saved to a specific or plurality of files **1932**, send to the head office **1933** or branch office **1934** or shared assigning other function tabs, illustrated exemplarily as **1935** and **1936** during a customization. The staff station function tab **1937** allows for the review of all stations within a restaurant envelope, illustrated exemplarily as line cook stations **1938**, teppanyaki stations **1939**, pre-cook stations **1940**, and preparation and portioning stations **1941** that allows for the display in field **F-9** of particular details, illustrated under **FIG. 35**. A plurality of select function tabs in field **F-5** provide for further information. Visual observation feeds can also be added in field **F-5** from cameras illustrated exemplarily under **FIG. 03/Ref 159**. The current storage inventory and inventory movement can be reviewed under the storage and inventory function tab **1942**, illustrated exemplarily for the current inventory within the chiller **1943** and the current realtime status IN and OUT of the chiller **1944**. The current inventory is displayed in field **F-9** in form of alpha numerical data and information, and in graphic formats that derive from the tracing of a plurality of sets of NFCs/RFIDs affixed to crates and trays. The realtime inventory movement also deriving from the tracing of a plurality of sets of NFCs/RFIDs affixed to crates and trays, and displays in the same field **F-9**, is reflected by identification of particular stations to which inventory is moved or retrieved from. The relevant responding details are reflected in field **F-5**. The staff performances for each station throughout the restaurant can be assessed. Selecting the staff performance function tab **1945**, opens a plurality of station **1946** under which the authorized staff **1947** for each station are listed. Performance reports are listed as files in field **F-5**, and station performances are reflected as line graphics in field **F-9**, reflecting the customizable targeted time a performance have to be accomplished, an actual time achieved, and a plurality of marks for incomplete and failed performances. The economic function tab **1948**

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allows for the review of past, current, and projected utility related costs and expenses **1949**, staff related matters **1950**, marketing related, and a plurality of other non-illustrated. In field **F-5** specific economical can be identified and reflected in field **F-9**. There is also a memo and letter function tab **1951** that allows the use of a plurality of templates for communication, including auto-alpha-numeric references and sender identification. There is also a report function tab **1952**, when activated, automatically compiles a pre-set customizable set of data and information in one action. The place order function tab **1953** allows for the selection of a plurality of different categories of purchase orders. Selecting the regular purchase order (RPO) **1954** generates a autocompiled RPO in field **F-9**. Individual items and quantities of a RPO derive from the ingredient inventory module within the CCOS **1**, identified and compiled based on a pre-set customizable inventory level for every ingredient, which is automatically updated and revised based on the established consumption level within the analytical module within the CCOS **1**. Prior sending a RPO for approval, adjustments can be recommended in a special column for individual approval. The same procedure applies when using the place service order function tab **1955**. The supply schedules function tab **1956** and the service schedule function tab **1957** allows for the display and review of a plurality of supply and service schedules **1958** and **1959**. There is also a scan function tab **1960** that allows for the scanning and determination in which folder a scanned document is placed, displaying a plurality of folders to select from in field **F-5**. Additional function tabs can be added during customization, illustrated exemplarily as **1961**. The displays in field **F-9** is illustrated exemplarily the current realtime of cover summary **1962** including total seats **1963** and average seat turns **1964** for the fast food segment **1965**, which is a sub-function tab under the summary data **1924**. It allows, applying a single or plurality of select function tabs in field **F-5** to expand on the basic customer cover data **1962**. Exemplarily is shown a breakdown by female morning **1966** and afternoon shift **1967**, and male morning **1968** and afternoon shift **1969**; and further broken down by covers ordered by non-members **1970**, members **1971**, and usage of coupons **1972**, with average customers for each category group also shown **1973**, **1974**, **1975**, and **1976**. The signup membership data, divided by shift **1977** is also shown, which can be further divided by female and male customer and age group.

FIG. 33

Referring now to **FIG. 33** illustrating the exemplarily SUDI landing screen for a manager, illustrated exemplarily under **FIG. 32/Ref: 1914** and its plurality of customizable main menu function tabs, jointly referred to as **1978** and their individual corresponding plurality of customizable select function tabs **1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991** in field **F-5** that allow the user to transform, based on the distinctive designated function, a single or plurality of displays in field **F-9**, illustrated exemplarily as **1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004**, that can be further influenced by a plurality of customizable corresponding action function tabs, illustrated exemplarily as **2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017** in field **F-4**. Functions and processes interact and communicate wireless through the internet with a plurality of independent interlinked modules within the CCOS **1** through a RMNS **2018**. In operation, there is a login/logout function tab **2019** that allows a plurality of authorized staff users, illustrated exemplarily under **FIG 32**, to access and use the plurality of functions for this landing screen **1914**. There is a summary data function tab **2020** with a sub-function tab for financial summary **2021** that provides for comprehensive realtime financial summary gathered from a single or plurality of participating restaurants, illustrated exemplarily

as an auto-numbered financial summary for R1, deriving from a plurality of data, illustrated exemplarily under **FIG. 49, 50, 51, 52, 53**, which can, using the plurality of relevant select function tabs **1979** in field **F-5**, transform the display **1992** in field **F-9**, comment text added using a virtual keyboard, and allow action to be taken through the use of a plurality of action tabs **2005** in field **F-6**. A plurality of realtime financial data, and historic data, can also be retrieved and displayed from a plurality of individual segments, illustrated exemplarily as **2022** within a participating restaurant. The same concept applies to cover summary **2023** and individual segments **2024** under the cover summary **2023**, involving also a plurality of relevant select function tabs **1980** in field **F-5**, the display **1993** in field **F-9**, add comment text using a virtual keyboard, and execute action through a plurality of action tabs **2006** in field **F-6**. There is also a trend analysis and projections function tab **2025** that allows drill-down into a plurality of financial data, and related covers, and customize all said data and covers for hypothetical exercises and projections, also involving a plurality of relevant select function tabs **1980** in field **F-5**, the display **1993** in field **F-9**, add comment text using a virtual keyboard, and execute action through a plurality of action tabs **2006** in field **F-6**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2026**. Any retrieved summary data **2020**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a staff station function tab **2027** that allows the manager to see, in realtime, activities of other screen displays, illustrated exemplarily for line cook stations **2028**, and particularity station 2 **2029**. Using the plurality of relevant select function tabs **1981** in field **F-5**, the manager can transform the display **1994** in field **F-9**, add comment text using a virtual keyboard, and execute action through a plurality of action tabs **2007** in field **F-6**. The same concept applies for the plurality of other individual segments, illustrated exemplarily as **2030**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2031**. Any access to staff stations **2027**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a storage inventory function tab **2032** that allows the manager to see a realtime inventory data report **2033** including but not limited to a total and plurality of usages, reserves, and requirements. Using the plurality of relevant select function tabs **1982** in field **F-5**, the manager can transform the display **1995** in field **F-9** and execute action to be taken through the use of a plurality of action tabs **2008** in field **F-6**, including the displaying and furnishing of breakdown reports for a plurality of storages, illustrated exemplarily as **2034**. The general inventory **2035** refers to the entire fixed and movable inventory Fixtures, Furniture, and Equipment, and a plurality of other items like tableware and alike, including their original and residual value, and their projected replacements. Using the plurality of relevant select function tabs **1982** in field **F-5**, the manager can transform the display **1995** in field **F-9**, add comment text using a virtual keyboard, and execute action through the use of a plurality of action tabs **2008** in field **F-6**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2036**. Any access and review of storage & Inventory **2032**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a staff performance function tab **2037** that allows the manager to see, in realtime, activities and performances of a plurality of staff, illustrated exemplarily for front of house staff **2038**, and particularly for staff 3 **2039**. Performances are monitored, exemplarily illustrated under **FIG. 05** and **FIG. 36**. Using

the plurality of relevant select function tabs **1983** in field **F-5**, the manager can transform the display **1996** in field **F-9**, add comment text using a virtual keyboard, and execute action through the use of a plurality of action tabs **2009** in field **F-6**. The same concept applies for the plurality of other individual segments, illustrated exemplarily as **2040**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2041**. Any access and review of staff performance **2037**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also an economic function tab **2042** that allows the manager to see, in realtime, economical data, illustrated exemplarily for a plurality of facility and utility related data, staff cost related, and ingredient inventory related **2043**. Using the plurality of relevant select function tabs **1984** in field **F-5**, the manager can transform the display **1997** in field **F-9**, add comment text using a virtual keyboard, and execute action through the use of a plurality of action tabs **2010** in field **F-6**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2044**. Any access to economics **2042**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a communication function tab **2045** that allows the manager to furnish and communicate, using a plurality of auto-numbered communication templates addressed to a plurality of authorised and designated parties **2046** that are organized under a plurality of relevant select function tabs **1985** in field **F-5**. The display **1998** in field **F-9** serves are text field with virtual keyboard function. Actions can be taken through the use of a plurality of action tabs **2011** in field **F-6**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2047**. Any access to the communication function **2045**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a report function tab **2048** that allows the manager to furnish and communicate a single or plurality of auto-numbered reports to pre-set designated parties, using a plurality of report templates and designated parties **2049** organized under a plurality of relevant select function tabs **1986** in field **F-5**. The display **1999** in field **F-9** serves are text field with virtual keyboard function. Actions can be taken through the use of a plurality of action tabs **2012** in field **F-6**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2050**. Any access to the report function **2048**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a purchase order function tab **2051** that allows the manager to furnish and forward a plurality of auto-numbered e-purchase orders, illustrated exemplarily as standing purchase order, followup purchase orders, and one-off purchase orders **2052** through the pre-set approval stages, whereby active operational supplier designated blank e-purchase orders are loaded into the system by the head office, and are organized alphabetically by suppliers under the relevant plurality of relevant select function tabs **1987** in field **F-5**. The display **2000** in field **F-9** serves are e-purchase order text field, allowing for virtual keyboard. A plurality of actions can be taken through the use of a plurality of action tabs **2013** in field **F-6**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2053**. Any access to the purchase order function **2051**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen

block and a report to the head office. There is also a service order function tab **2054** that allows the manager to furnish and forward a plurality of auto- numbered and e-service orders, illustrated exemplarily as standing service order, followup service orders, and one-off service orders **2055** through the pre-set approval stages, whereby active operational service provider designated but blank e-service orders are loaded into the system by the head office, and are organized alphabetically by service provider under the relevant plurality of relevant select function tabs **1988** in field **F-5**. The display **2001** in field **F-9** serves as e-service order text field, allowing for virtual keyboard. A plurality of actions can be taken through the use of a plurality of action tabs **2014** in field **F-6**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2056**. Any access to the purchase order function **2051**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a supply and a service schedule function tab **2057** and **2058** that allows the manager to review, amend, and forward a plurality of auto-numbered and e-schedules, illustrated exemplarily as weekly and monthly PO schedules **2059** and weekly and monthly SO schedules **2060**, that include, but are not limited to a plurality of financial and other related data and information. Using the plurality of relevant select function tabs **1989** and **1990** in field **F-5**, the manager can transform the display **2002** and **2003** in field **F-9**, add comment text using a virtual keyboard, and execute action through a plurality of action tabs **2015** and **2016** in field **F-6**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2061** and **2062**. Any access to the supply and a service schedule function **2057** and **2058**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a scan function tab **2063** that allows the manager to scan, file, and forward a plurality of scanned documents to a plurality of recipient, and auto-attach said scanned documents to existing processes, action, and activities. Using the plurality of relevant select function tabs **1991** in field **F-5**, the manager can transform the display **2004** in field **F-9**, add comment text using a virtual keyboard, and execute a plurality of action through the use of a plurality of action tabs **2008** in field **F-6**. Any access to the scan function **2063** must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a loyalty program function tab **2064** that allows the manager to review and act upon for verification, on any membership and loyalty program matters. Using the plurality of relevant select function tabs **1991** in field **F-5**, the manager can transform the display **2004** in field **F-9**, add comment text using a virtual keyboard, and execute a plurality of action through the use of a plurality of action tabs **2008** in field **F-6**. Any access to the loyalty program function **2064** must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. More main menu function tabs can be added during customization, illustrated exemplarily as **2065**.

FIG. 34

Referring now to **FIG. 33** illustrating exemplarily a typical SUDI landing screen **2066** for the chefs SUDI, illustrated exemplarily under **FIG. 03/Ref: 158**. The upper segment **2067**, is comparable to the illustrated exemplary typical landing screen of the managers SUDI, illustrated exemplarily under **FIG. 32**. Within the vertical scrollable segment **2068** are a

plurality of main function tabs **2069** that are comparable to the screen display for the manager, illustrated under **FIG. 33** and **FIG. 35** that are linked to a plurality of customizable function, illustrated exemplarily as **2070**. Illustrated exemplarily for this screen display the main function tabs are the same as for the manager, except for the menu engineering function tab **2071**.

5 The menu engineering function tab **2071** is selected, resulting in the display of a plurality of relevant corresponding menu function tabs **2072**. The menu item lunch function tab **2073**, and its related recipe sheet function tab **2074** is selected, that is displays in field **F-9** a recipe sheet. Within the horizontal scrollable segment **2075** is the space for a plurality of action specific function tabs referred to under **FIG. 32**, with addition to show nutrition loss guide and GI/GL and diabetic exchange guide **2076**, whereby the fixed segment **2077** is designated to display a plurality of incoming alerts and notifications **2078** that arrive in from a plurality of other SUDI stations. A menu item lunch **2073** recipe sheet **2074** is illustrated exemplarily in field **F-9**. An auto ID **2079** and an auto date and time **2080** is given to allow cataloguing and tracing. Within the vertical scrollable field, a recipe name is given **2081** using the virtual

10 keyboard. A mealtime category is selected **2082**, allowing for multiple choices, that correspond to the mealtime function tab illustrated under menu screen for customers, illustrated under **FIG. 09/Ref 499**. A dish category is selected **2083** that corresponds to the dish category function tab illustrated under menu screen for customers, illustrated under **FIG. 09/Ref 500**. A selection YES/NO **2084** is made to establish if the recipe for this menu item is suitable for diabetic. If YES is selected, additional columns are automatically added **2085** after measurements **2086** and the glycemic index and the glycemic load data, and diabetic exchanges are shown for each ingredient. A selection YES/NO **2087** is made to establish if the recipe for this menu item is gluten free or not. Ingredients **2088** for this menu items are selected from the plurality of dropdown menu lists, illustrated exemplarily as **2089**.

15 Measurements are selected from a plurality of dropdown lists of established measurements that correspond with all measurements applied for menu item including but not limited to customizations and creations, illustrated exemplarily for portioning under **FIG. 18** and diabetic **FIG. 19**. If calories are being considered, the maximum calories **2090** are selected from the dropdown menu, whereby the dropdown menu displays numerical as well as a color code

20 **2091**, illustrated exemplarily for good range **2092**, mid range **2093**, and review range **2094** that are in line with an applied active PAL and other relevant data, illustrated exemplarily under **FIG 16**. If a calorie level is selected, and the recipe exceeds the set calorie level, the alert display **2078** informs the chef to review the recipe or adjust the calorie setting. The same, including a plurality of various ranges of color codes **2091** are being applied, when selected,

25 for nutritions, illustrated exemplarily for protein **2095**, good fat **2096**, saturated fatty acids **2097**, carbohydrates **2098**, sugars **2099**, sodium **2100**, and dietary fibre **2101**, corresponding also to the data used under **FIG 16**. Additional nutritions including vitamins and minerals can be added during customization, illustrated exemplarily as non-specified **2102**. The recipe sheet also reflects the ingredient purchase cost **2103** for every ingredient, drawn from the raw and/or unprocessed ingredient data established during receipt, illustrated exemplarily under

30 **FIG. 42**, and verified at relevant processing and portioning stations, illustrated under **FIG. 40**. The edible ingredient portion cost **2104** and the portion yield **2105** is drawn from the results or processed and ready portioned ingredients from the relevant processing and portioning stations, illustrated under **FIG. 40**. The recipe cost **2106** for each ingredient is also reflected.

35 When composing a recipe, the cost per portion **2107**, allowing for selection of the number of portions from a dropdown menu, the cost per recipe **2108**, and the applied margin for portion **2109** are automatically established, allowing for an automatic or manual setting of margin

2110. The relevant menu price **2111**, budget cost **2112**, actual cost **2113**, and break even selling price **2114** are also reflected. The recipes composed can be cooked and prepared, illustrated exemplarily at a plurality of pre-cooking stations **2115**, frontline cooking stations **2116**, teppanyaki frontline stations **2117**. The same recipe sheet concept can be applied, with minor customization to the bakery **2118** and coffee roasting **2119**. The chef can also load the recipe sheet on the chef station **2120**, or on any other cooking station **2115**, **2116**, **2117** when composing and cooking the recipe. The chef can also use the auto picture function of the ISMs, illustrated under **FIG 03** and save a plurality of menu item pictures with the recipe **2121**.

FIG. 35

Referring now to **FIG. 35** illustrating the exemplary SUDI landing screen for the chef, illustrated exemplarily under **FIG. 32/Ref: 2066** and its plurality of customizable main menu function tabs, jointly referred to as **2122** and their individual corresponding plurality of customizable select function tabs **2123**, **2124**, **2125**, **2126**, **2127**, **2128**, **2129**, **2130**, **2131**, **2132**, **2133**, **2134**, **2135** in field **F-5** that allow the user to transform, based on the distinctive designated function, a single or plurality of displays in field **F-9**, illustrated exemplarily as **2136**, **2137**, **2138**, **2139**, **2140**, **2141**, **2142**, **2143**, **2144**, **2145**, **2146**, **2147**, **2148**, that can be further influenced by a plurality of customizable corresponding action function tabs, illustrated exemplarily as **2149**, **2150**, **2151**, **2152**, **2153**, **2154**, **2155**, **2156**, **2157**, **2158**, **2159**, **2160**, **2161** in field **F-4**. Functions and processes interact and communicate wirelessly through the internet with a plurality of independent interlinked modules within the CCOS **1** through a RMNS **2162**. In operation, there is a login/logout function tab **2163** that allows a plurality of authorized staff users, illustrated exemplarily under **FIG 32**, to access and use the plurality of functions for this landing screen **2066**. There is a summary data function tab **2164** with a sub-function tab for financial summary **2165** that provides for comprehensive realtime financial summary gathered from a single or plurality of participating restaurants, illustrated exemplarily as an auto-numbered financial summary for R1, deriving from a plurality of data, illustrated exemplarily under **FIG. 49**, **50**, **51**, **52**, **53**, which can, using the plurality of relevant select function tabs **2123** in field **F-5**, transform the display **2136** in field **F-9**, comment text added using a virtual keyboard, and allow action to be taken through the use of a plurality of action tabs **2149** in field **F-6**. A plurality of realtime financial data, and historic data, can also be retrieved and displayed from a plurality of individual segments, illustrated exemplarily as **2066** within a participating restaurant. The same concept applies to cover summary **2167** and individual segments **2168** under the cover summary **2167**, involving also a plurality of relevant select function tabs **2124** in field **F-5**, the display **2137** in field **F-9**, add comment text using a virtual keyboard, and execute action through a plurality of action tabs **2150** in field **F-6**. There is also a trend analysis and projections function tab **2169** that allows drill-down into a plurality of financial data, and related covers, and customize all said data and covers for hypothetical exercises and projections, also involving a plurality of relevant select function tabs **2124** in field **F-5**, the display **2137** in field **F-9**, add comment text using a virtual keyboard, and execute action through a plurality of action tabs **2150** in field **F-6**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2170**. Any retrieved summary data **2164**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a staff station function tab **2171** that allows the chef to see, in realtime, activities of other screen displays, illustrated exemplarily for line cook stations **2172**, and particularly station 2 **2173**. Using the plurality of relevant select

function tabs **2125** in field **F-5**, the manager can transform the display **2138** in field **F-9**, add comment text using a virtual keyboard, and execute action through a plurality of action tabs **2151** in field **F-6**. The same concept applies for the plurality of other individual segments, illustrated exemplarily as **2174**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2175**. Any access to staff stations **2171**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a storage inventory function tab **2176** that allows the chef to see a realtime inventory data report **2177** including but not limited to a total and plurality of usages, reserves, and requirements. Using the plurality of relevant select function tabs **2126** in field **F-5**, the chef can transform the display **2139** in field **F-9** and execute action to be taken through the use of a plurality of action tabs **2152** in field **F-6**, including the displaying and furnishing of brake down reports for a plurality of storages, illustrated exemplarily as **2178**. The general inventory **2179** refers to the entire fixed and movable inventory Fixtures, Furniture, and Equipment, and a plurality of other items like tableware and alike, including their original and residual value, and their projected replacements. Using the plurality of relevant select function tabs **2126** in field **F-5**, the manager can transform the display **2139** in field **F-9**, add comment text using a virtual keyboard, and execute action through the use of a plurality of action tabs **2152** in field **F-6**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2180**. Any access and review of storage & Inventory **2176**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a staff performance function tab **2181** that allows the chef to see, in realtime, activities and performances of a plurality of staff, illustrated exemplarily for front of house staff **2182**, and particularly for staff 3 **2183**. Performances are monitored, exemplarily illustrated under **FIG. 05** and **FIG. 36**. Using the plurality of relevant select function tabs **2127** in field **F-5**, the manager can transform the display **2140** in field **F-9**, add comment text using a virtual keyboard, and execute action through the use of a plurality of action tabs **2153** in field **F-6**. The same concept applies for the plurality of other individual segments, illustrated exemplarily as **2184**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2185**. Any access and review of staff performance **2181**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also an economic function tab **2186** that allows the chef to see, in realtime, economical data, illustrated exemplarily for a plurality of facility and utility related data, staff cost related, and ingredient inventory related **2187**. Using the plurality of relevant select function tabs **2128** in field **F-5**, the manager can transform the display **2141** in field **F-9**, add comment text using a virtual keyboard, and execute action through the use of a plurality of action tabs **2154** in field **F-6**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2188**. Any access to economics **2186**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a communication function tab **2189** that allows the chef to furnish and communicate, using a plurality of auto-numbered communication templates addressed to a plurality of authorised and designated parties **2190** that are organized under a plurality of relevant select function tabs **2129** in field **F-5**. The display **2142** in field **F-9** serves are text field with virtual keyboard function. Actions can be

taken through the use of a plurality of action tabs **2155** in field **F-6**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2191**. Any access to the communication function **2189**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a report function tab **2192** that allows the chef to furnish and communicate a single or plurality of auto-numbered reports to pre-set designated parties, using a plurality of report templates and designated parties **2193** organized under a plurality of relevant select function tabs **2130** in field **F-5**. The display **2143** in field **F-9** serves are text field with virtual keyboard function. Actions can be taken through the use of a plurality of action tabs **2156** in field **F-6**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2194**. Any access to the report function **2192**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a purchase order function tab **2195** that allows the chef to furnish and forward a plurality of auto-numbered e-purchase orders, illustrated exemplarily as standing purchase order, followup purchase orders, and one-off purchase orders **2196** through the pre-set approval stages, whereby active operational supplier designated blank e-purchase orders are loaded into the system by the head office, and are organized alphabetically by suppliers under the relevant plurality of relevant select function tabs **2131** in field **F-5**. The display **2144** in field **F-9** serves are e-purchase order text field, allowing for virtual keyboard. A plurality of actions can be taken through the use of a plurality of action tabs **2157** in field **F-6**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2197**. Any access to the purchase order function **2195**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a service order function tab **2198** that allows the chef to furnish and forward a plurality of auto-numbered e-service orders, illustrated exemplarily as standing service order, followup service orders, and one-off service orders **2199** through the pre-set approval stages, whereby active operational service provider designated but blank e-service orders are loaded into the system by the head office, and are organized alphabetically by service provider under the relevant plurality of relevant select function tabs **2132** in field **F-5**. The display **2145** in field **F-9** serves are e-service order text field, allowing for virtual keyboard. A plurality of actions can be taken through the use of a plurality of action tabs **2158** in field **F-6**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2200**. Any access to the purchase order function **2198**, must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a supply and a service schedule function tab **2201** and **2202** that allows the chef to review, amend, and forward a plurality of auto-numbered e-schedules, illustrated exemplarily as weekly and monthly PO schedules **2203** and weekly and monthly SO schedules **2204**, that include, but are not limited to a plurality of financial and other related data and information. Using the plurality of relevant select function tabs **2133** and **2134** in field **F-5**, the chef can transform the display **2146** and **2147** in field **F-9**, add comment text using a virtual keyboard, and execute action through a plurality of action tabs **2159** and **2160** in field **F-6**. These main menu function tabs are customizable and extendable to add and include additional main function tabs **2205** and **2106**. Any access to the supply and a service schedule function **2201** and **2202**, must be

acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a scan function tab **2207** that allows the chef to scan, file, and forward a plurality of scanned documents to a plurality of recipient, and auto-attach said scanned documents to existing processes, action, and activities. Using the plurality of relevant select function tabs **2135** in field **F-5**, the manager can transform the display **2148** in field **F-9**, add comment text using a virtual keyboard, and execute a plurality of action through the use of a plurality of action tabs **2161** in field **F-6**. Any access to the scan function **2207** must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. There is also a menu engineering function tab **2208** that allows the chef to review and compose recipes, illustrated exemplarily under **FIG. 34**. Using the plurality of relevant select function tabs **2135** in field **F-5**, the manager can transform the display **2148** in field **F-9**, add comment text using a virtual keyboard, and execute a plurality of action through the use of a plurality of action tabs **2161** in field **F-6**. Any access to the menu engineering function **2208** must be acknowledged by sign-in password confirming such said information and data was read, or screen switches to a screenwide logo, resulting in a screen block and a report to the head office. More main menu function tabs can be added during customization, illustrated exemplarily as **2209**.

FIG. 36

Referring now to **FIG. 36** illustrating exemplarily a typical SUDI cooking line screen **2210** for the chefs station, illustrated exemplarily under **FIG. 03/Ref: 145**. The upper segment **2211**, is comparable to the illustrated exemplary typical chef landing screen SUDI, illustrated exemplarily under **FIG. 34**. Within the vertical scrollable field **2212** is a main menu, illustrated exemplarily under **FIG.35**. Selected is the staff station function tab **2213**, in particular under the line cook stations **2214** the station 1 **2215**, and under the teppanyaki stations the station 2 **2216**. The relevant corresponding screen displays from the said stations **2215** and **2216** are displayed in field **F-9**, allowing the chef to follow each stations cooking process. Within the multi segment vertical scrollable fields **2217** in field **F-5** are a plurality of select function tabs that allow the chef to change the center display in field **F-9** between 2 stations **2218**, 4 stations **2219**, and 6 station **2120**, or continues scroll display **2221**. Corresponding sub-menu functions **2222** under each function tab, illustrated exemplarily for the continues screen **2221**, that allows the chef to view the details of an order (electronic chit) **2223**, and track an order **2224**, illustrated exemplarily under **FIG. 05**. A cooking process at any cooking station can be paused **2225** and released **2226**, including preparation and portioning stations, and pre-cooking stations, and a plurality of other back of house and front of house stations, included in the main menu under the vertical scrollable segment **2212**, and illustrated exemplarily under **FIG. 35**. For the continuous scroll display **2221**, the chef can freeze individual station displays **2227** without affecting the scrollability of the other station displays. The chef can also include a realtime camera feed in field **F-5** from a plurality of stations, illustrated exemplarily for line station 1 **2228**, causing field **F-5** to divide in two parts. The lower part **2229** displaying the realtime video feed of line station 1 **2228**, and the upper part the select menu **2230**. Within the horizontal scrollable segment **2231** is the space for a plurality of action specific function tabs **2232**, whereby the fixed segment **2233** is designated to display a plurality of incoming alerts and notifications **2234** from a plurality of other SUDI stations, allowing for the customization of said function tabs **2232**.

FIG. 37

Referring now to **FIG. 37** illustrating exemplarily a typical screen display for a plurality of cooking station SUDIs, illustrated exemplarily under **FIG. 03/Ref: 142, 144, and 150**. The shown screen display **2233** comprises of the same upper segments **2234**, illustrated exemplarily under **FIG. 36**. Field **F-8** and **F-9** are merged, and display a menu item order inclusive of detailed cooking instructions that comprise of the list of ingredients **2235** and cooking instruction **2236** for each ingredient in order of cooking. It can include the recipe instruction of a standard menu item, or a customized standard menu item, or a from scratch created menu item. The sequential order of cooking for a plurality of standard menu items derives from the recipe sheet, illustrated exemplarily under **FIG. 34**, and for customized menu items in part from the recipe sheet, illustrated exemplarily under **FIG. 34** and from the ingredient database, illustrated exemplarily under **FIG. 55**; and for created menu items from the ingredient database, illustrated exemplarily under **FIG. 55**. The cooking instructions include alphabetic measurement instruction **2237** that identify the particular type and size of measuring unit for every ingredient, illustrated exemplarily for ingredient MI 1 **2238**. There are also a plurality of a cooking time instruction **2239**, informing of the total time columns **2240** with a minute column **2241** that corresponds with the target time **2252**, and a plurality of individual cooking time columns for each ingredient that give the cooking time instruction by minute, each box representing a single minute, illustrated exemplarily as MI1, MI 2 and MI 3 **2242**, whereby the smaller number identifies the cooking sequence. The reference MI 1, MI 2 and MI 3 corresponds with the ingredient identification number of the listed ingredients under the ID column **2243**. Each time column **2242**, illustrated exemplarily as MI 1, MI 2, and MI 3 **2242** comprises of a plurality of individual minute fields, reflecting the recipe cooking time allocated for an individual ingredient. For example, ingredient MI 1 **2244** has a allocated recipe cooking time of eight (8) minutes, and the color of the minute field changes as the cooking progresses indicating in the illustrated example that seven (7) minutes have been used up; for ingredient MI 1 **2244**. Exemplarily for ingredient MI 2, the cooking time only started at minute four (4) and is scheduled for six (6) minutes. For ingredients that await cooking, the color in the minute field is different **2245**. The time field **2246** is movable in horizontal and vertical direction as the cooking process progresses, eliminating completed cooking processes for ingredients to make room for incomplete cooking time processes. The time field **2246** can also be moved manually by the cook. There is also a hob and hob dial recipe cooking instruction column **2247** that reflects the allocated recipe hob position (2) **2248** and the hop dial position (4) **2249**. During the cooking progress a hop and dial position can change, reflecting the cooking instructions of a recipe, or established in the ingredient database as illustrated exemplarily under **FIG. 55**. There is also a cookware type column **2250** that provides the cook with the instruction which cookware or cooking method to use. Further visual assistance is given in field **F-4**. The relation between ingredient and cookware type, including method of cooking is also indicated way of color indicators, illustrated exemplarily as **2251**. In field **F-4** is also a time indication. It reflects in numerical and graphical format the target cooking time **2252**, allocated in the recipe and/or computed in the ingredient database when ingredients for cooking are computed, the time used up **1971**. The time used up **2253** and the time left to the target time **2254** is also indicated. The total number of servings, the order number, and seat positions are also reflected **2255**. Plating instructions are also given **2256** for a menu item displayed as picture **2257** complete with embedded text information **2258** informing the cook of the type of dish used for plating. When a menu item is ready for

plating, the cook holds the designated tableware **2259** in close proximity to the NFC/RFIDs device **2260** connected to the SUDI **2261**, and the NFC/RFID device **2260** automatically communicates with the full duplex RFID **2262** of the tableware. If authentication is successful, the order field **2263** (screen field **2255**) changes color and the order data is automatically transferred, ready for plating **2264**. If the order data cannot be transferred because of a faulty full duplex RFID, the cook changes plates and repeats the process. Upon completion of plating **2264**, the tableware is placed, ready for service and/or collection, on an ISM **2265**, illustrated exemplarily under **FIG. 5**. There are also a plurality of function tabs within the horizontal scrollable customizable segment **2266**, comprising of a set of up **2267** and down **2268** function tabs that move the entire block, illustrated exemplarily as **2269**, **2270**, **2271**, **2272** up and down. Selecting the start function tab **2273** starts the timing of the cooking process, selecting the close and next function tab **2274** closes one cooking instruction, and opens the next cooking instruction. There is a pause and start function tab **2275** that allows for pausing of and between cooking session. There are also a plurality of non-assigned function tabs, illustrated exemplarily as **2276** and **2277** that can be assigned during customization. The number of outstanding orders designated for a particular cooking station are also reflected **2278**, allowing for additional information to be added during customization, like order ID, seat identification and the time the order was placed. When allergy concerns are involved in a particular order a blinking allergy notification **2279** is automatically activated in the fixed field segment **2280**. The background color of a particular ingredient of allergy concern, illustrated exemplarily as **2281** also blinks, alerting the cook so preventative action can be taken.

FIG. 38

Referring now to **FIG. 36** illustrating exemplarily a typical SUDI cooking line flowchart a typical cooking station, illustrated exemplarily for an authorized staff **2282** user **2283** at a SUDI **2284**. A staff **2282** user **2283** completes on the starting screen **2285**, illustrated exemplarily under **FIG. 30** a login **2286** process to reach the landing screen **2287**, illustrated exemplarily under **FIG. 37**. The chef is notified **2288** of the login **2286** on its SUDIs **2289**. The landing screen displays a main menu in field F-8. A startup and/or shift change report is generated **2290**, whereby, when changing shift, the login/logout **2291** can be executed through the main menu in F-8. A shift change report is generated and the chef is notified **2288** of the shift change. Simultaneously, a change of shift ingredient inventory report is generated and the inventory is evaluated **2292**. When more ingredient inventory is required, either from the preparation and portioning stations **2293** or storages **2294**. The movement of ingredients is communicated and recorded through the use of sets of NFCs/RFIDs devices affixed to trays **2295** and vessels **2296**, and the cooking station inventory is updated through a plurality of automated communications between independent interlined modules with the CCOS **1** through a local RMNS **2297**, with option to execute manual scanning devices of provided NFCs/RFIDs scanner **2298** that are connected to SUDIs **2284**, **2293**, **2294**. The current cooking station inventory is detected and its location established **2299**, and a cooking station report is updated **2300**. The cooking station is now ready for service **2301**. When orders from customers **2302** come in and are displayed on the cooking station SUDI **2303**, illustrated exemplarily under **FIG.37**, ingredient portions are selected from the cooking station storage **2304**, and passed by a NFC/RFID communicator **2305** that records the ingredient portions removed, with option to executed manual scanning devices of provided NFCs/RFIDs scanner **2206** that are connected to SUDIs **2284**. Used ingredient portions are used **2307**, and in the

event of spoilage, recorded as waste, illustrated exemplarily under **FIG. 54** in collaboration with the relevant analytics, illustrated exemplarily under **FIG. 49, 50, 51, 52, 53**. The menu item is cooked and plated **2308** and is ready for service **2009**, illustrated exemplarily under **FIG. 37**, and is placed on a ISM **2310**, and service commences as illustrated exemplarily under **FIG. 05**. An end of shift inventory is established **2311**, and end of shift report established **2312**, with option to return end of day inventory back to storage **2313**. Returned inventory is updated through a plurality of automated communications between storage SUDI **2314** and independent interlined modules with the CCOS **1** through a local RMNS **2315**, with option to executed manual scanning devices of provided NFCs/RFIDs scanner **2316** that are connected to SUDIs **2314**. Any discrepancies are reported and displayed under the storage functions **2317** with notification to the manager's and chef's SUDI **2289**.

FIG. 39

Referring now to **FIG. 39** illustrating exemplarily a typical screen display for a plurality of preparation and portioning station SUDIs, illustrated exemplarily under **FIG. 03/Ref: 140**. The shown screen display **2318** comprises of the same upper segments **2319**, illustrated exemplarily under **FIG. 37**. Field **F-8** and **F-9** are merged, and displays the ingredient processing and portioning detailed instructions that comprise of the list of ingredients **2320**, preparation and portioning instructions **2321** for each ingredient. The process identifies the alphanumeric ID where the container or tray is currently located **2322**, the net weight of the ingredients **2323**, the time allocated for processing and portioning **2324**, the portion weight and size of vessel **2325**, the total number of portion units **2326**, the portion vessels to be used **2327**, the type of crate or tray **2328** to use for storage, and the new storage location, and a plurality of other detail instruction that can only be seen when scrolled the indicated screen segment horizontal as indicated **2329** and **2330**. Shown are also the projected ingredient result **2330**, comprising of the net weight received **2331**, the projected weight yield **2332**, and the number of portion units **2333**. The target data is established by the chef on the chef's SUDI, illustrated exemplarily under **FIG. 35** under function **2171** and **2174**, using the same screen display but with data entry features. The projected waste and waste percentages **2334** is calculated automatically. The actual outgoing ingredient result **2335** is also shown, reflected in net weight yield **2336** and number of portion units **2337**. Visual instruction are also given in form of video or picture sequence **2338**, including written guidelines, exemplarily for the portioning of broccoli in 2 x centimetre dimension **2339**. The time target, used up time and time to target are also displayed **2340**. More relevant corresponding detailed processing information are also displayed **2341** when an ingredient is selected for processing and portioning, illustrated exemplarily as **2342**. Within the horizontal scrollable segment **2343** are a plurality of function tabs, comprising of a set of up **2344** and down **2345** function tabs that move the entire block, illustrated exemplarily as **2346** and **2347**. Selecting the start function tab **2348** starts the timing of the preparation and portioning process, selecting the close and next function tab **2349** closes one session, and opens the next session. There is a pause and start function tab **2350** that allows for pausing of and between sessions. There are also a scan function tab **2351** with a handheld scanner connected to the SUDI that allows for manual scanning plurality of non-assigned function tabs, illustrated exemplarily as **2351**, and there is a weight function tab **2352** that allows the use of an electronic weight scale connected to this SUDI for the weighing of ingredients, either for received net weight **2331**, actual waste **2353**, the net weight yield, and if required the individual portion weight **2325**. When urgent supply for

the cooking stations is needed, the display **2354** under the fixed segment **2355** identifies said station.

FIG. 40

5 Referring now to **FIG. 40** illustrating exemplarily a typical SUDI preparation and portioning station flow diagram, illustrated exemplarily for an authorized staff **2356** user **2357** at a SUDI **2358**. A staff **2356** user **2357** completes on the starting screen **2359**, illustrated exemplarily under **FIG. 30** a login **2360** process to reach the landing screen **2361**, illustrated exemplarily under **FIG. 39**. The chef is notified **2362** of the login **2286** on its SUDIs **2363**. The landing screen displays main menu is displayed within field **F-8**. A startup and/or shift change report is generated **2364**, whereby, when changing shift and login/logout **2365** can be executed through the main menu within **F-8**. A shift change report is generated and the chef is notified **2362** of the shift change. Simultaneously, a change of shift ingredient inventory report is generated and the inventory, if any, is evaluated **2366**. The preparation and portioning station is now ready for service **2367**. Ingredient preparation and portioning orders are prepared and ordered **2368** from the chef's SUDIs **2363**, or automatically issued from a plurality of cooking station **2369** if their customizable pre-set ingredient inventory levels run low. Upon receipt of ingredient orders **2370**, ingredients are collected **2371** from a single or plurality of storage stations, illustrated exemplarily as the chiller **2372**. Ingredients are selected from storage and passed by a NFC/RFID communicator **2373** that records the ingredient being removed, with option to execute manual scanning using provided NFCs/RFIDs scanner **2374** that is connected to SUDIs **2284**. Ingredients are prepared used **2374** and weight reconfirmed **2375**. Any discrepancies are automatically established under the storage inventory **2377** and reported on the managers and chefs SUI **2363**. Spoilage and waste, illustrated exemplarily under **FIG. 54** in collaboration with the relevant analytics, illustrated exemplarily under **FIG. 49, 50, 51, 52, 53** are also reported. Ingredients are being portioned **2378**, and weight, if required **2375**, and passed by a NFC/RFID communicator **2373** that records the portioned ingredient, with option to executed manual scanning using a provided NFCs/RFIDs scanner **2374** that are connected to the stations SUDIs **2358**. Ingredients are prepared for movement **2379**, and distributed **2380**, either back into storage **2381** or to a plurality of cooking stations **2382**. An end of shift inventory is established **2383**, and end of shift report established **2384**, with the end of day inventory returned back into storage **2385**. Returned inventory is updated through a plurality of automated communications between storage SUDI **2386** and independent interlinked modules with the CCOS **1** through a local RMNS **2387**, with option to executed manual scanning devices of provided NFCs/RFIDs scanner **2388** that are connected to SUDIs **2386**. Any discrepancies are reported and displayed under the storage functions **2377** with notification to the manager's and chef's SUDI **2363**.

FIG. 41

40 Referring now to **FIG. 40** illustrating exemplarily a typical SUDI landing screen **2389** for a delivery and dispatch station, illustrated exemplarily under **FIG. 03** as **158**. The shown screen display **2389** comprises of the same upper segments **2390**, illustrated exemplarily under **FIG. 39**. Under the vertical scrollable segment **2391** is a customized main manual for the delivery and dispatch station. Illustrated are a plurality of exemplary vertical scrollable screen displays, comprising of a e-purchase order **2392**, addressed under **FIG. 02/Ref:54, FIG. 33/Ref: 2051** and **FIG. 35/2195**, and the corresponding e-delivery invoice **2393**, and the prevailing discrepancy detection **2394**. A field that can display scanned hard copies **2395** of documents

in relation to **2392** and **2393** is also available. Provided e-delivery invoices **2393** are available for linked TPUDIs, provided as online e-document services for suppliers and service providers for to expedient execution of the receiving and verification process. A e-delivery invoice is retrieved at the delivery stations SUDI, illustrated exemplarily under **FIG. 03/Ref: 158** in conjunction with the e-purchase order involving a plurality of independent interlinked modules within the CCOS **1**, illustrated exemplarily under **FIG. 42**. There are also a plurality of function tabs within the horizontal scrollable customizable segment **2396**, comprising of an enlarge function tab **2397** that enlarges any screen when selected, a back function tab that reverses the enlarge action **2398**, a photo function tab **2399** that allows, as part of evidence, to take pictures with a digital camera linked to this SUDI. Pictures are automatically attached to the set of documents displayed on this screen **2389**. There is also an adjust display function tab **2400** that adjusts the screen display, illustrated exemplarily as **2401**, **2402**, **2403**. There is also an accept function tab **2404**, that allows to accept a discrepancy in line with other procedures, which automatically creates notes to the displayed documents, and a reject function tab **2405** that allows rejections of discrepancies in line with other procedures, which automatically creates notes to the displayed documents. The signature function tab **2406** is a confirmative action allowing for up to three signature of authorized person, illustrated exemplarily as the manager **2407**, the chef **2408**, and the person **2409** that delivers supplies or services. Signatures are also transposed on the relevant displayed documents. The delivery report function tab **2410** executes the first phase of the receiving process and prepares and the display changes to a single screen format for the second phase. The schedule follow up delivery function tab **2411** attaches to the delivery report **2410** a request for a follow up delivery in the event of rejected discrepancies **2394** and sends a request notification to the managers and the chefs SUDI for further action. The same applies for the request follow up order **2412** in the event an entire or a large portion of a delivery was rejected. The proceed function tab **2413** closes this session and starts the physical inspection process. A plurality of additional function tabs can be added during customization, illustrated exemplarily as **2414**. Within the customizable multipurpose segment **2415** is a field providing suppliers and services provider details, with one touch telephone contact functions to a plurality of telephone numbers, illustrated exemplarily as **2416**, **2417**, **2418**. With recording function **2419**, and a plurality of video call functions, illustrated exemplarily as **2419**, **2420**, **2421**, **2422**.

FIG. 42

Referring now to **FIG. 42** illustrating exemplarily a typical delivery/receiving station flow diagram, illustrated exemplarily for an authorized staff **2423** user **2424** at a delivery and receiving station SUDI **2425**. A staff **2423** user **2424** completes on the starting screen **2426**, illustrated exemplarily under **FIG. 30** a login **2427** process to reach the landing screen **2428**, illustrated exemplarily under **FIG. 41**. The manager and chef is notified **2429** of the login **2427** on their respective SUDIs **2430**. If there is a handover during an ongoing operation, a shift change can be executed through the login and logout function tab **2431**. Suppliers and service providers can use their own handheld SUDIs that allow for e-document identification and scanning to identify a delivery or service **2432**. Delivery e-document verification is initiated **2433** by selecting the document search function tab **2434**. The scan can be executed **2435** from the delivery e-document **2433**, a corresponding hard copy document, or the suppliers/service providers handheld SUDIs **2432**, using a handheld or fixed scanner device **2436** connected to the delivery and receiving station SUDI **2425**, that communicates with the

third party service module within the CCOS 1 through a local RMNS 2437, illustrated exemplarily under FIG. 46 for identification and verification of the relevant delivery and/or service documentation. Upon successful verification 2438, the plurality of e-documents, illustrated exemplarily under FIG 41, are displayed 2439, comprising of the relevant e-purchase order 2440, the relevant e-delivery invoice 2441, and the e-discrepancy document 2442. A manual process 2443 can also be applied when a scan verification is unsuccessful, or when a supplier and/or service provider uses its own hard copy documentation and/or SUDI 2432 display documentation. In such case, a supplier and/or service related search 2444 and/or e-documentation search 2445 can be executed. A supplier and/or service providers name 2446 or the relevant ID 2447 can be entered into the provided fields using a virtual keyboard 2448. Alternatively, the prevailing e-purchase order code 2449, that assigned when a purchase order is placed, or the prevailing delivery order code 2450, when completed online but could not be verified for whatever reason, can be entered in the provided fields using a virtual keyboard 2448. When a supplier and/or service provider related 2444 search is executed, the result is shown in an interactive popup window 2451, displaying all outstanding deliveries and/or services. A selection is made 2452 and the relevant set of e-documents are displayed 2439, comprising minimum of the relevant e-purchase order 2440. When a hard copy document or a handheld supplier SUDI 2432 is involved, said document can be scanned 2453 and/or transferred, and the respective document data 2454 is then displayed in the relevant field, illustrated exemplarily under FIG. 41, whereby an automated e-delivery invoice 2441 is generated drawing all relevant data from the e-purchase order 2440, and the e-discrepancy document 2442 is completed manually by comparing the scanned and/or transferred hard copy document 2454 with the e-purchase order 2440, using the virtual keyboard 2448 for data entry. In the event neither the service provider related 2444, nor an e-document related search 2445 is successful 2455, contact 2456 to the supplier and/or service provider can be established within field F-5, illustrated exemplarily under FIG. 41. This can also be done when a verification scan 2435 is unsuccessful 2457. Field F-5 allows for a plurality of direct telephone 2458 links, illustrated exemplarily as 2459, 2460, or visual option 2461 through video conferencing, illustrated exemplarily as 2462, 2463 with recording 2464. In the event a delivery and/or a service is rejected at any stage during the receiving process, photo evidence can be established 2465 and linked to the relevant e-documents, 2454, 2440, 2441, 2442. When a matter cannot be resolved and further action need to be taken 2466, including rejection of the delivery 2467, relevant automated notification to the parties concerned is executed, illustrated exemplarily to the head office 2468, its representative office, subsidiary, and branch 2469, the relevant participating restaurant 2470, and the relevant supplier and/or service provider 2471. When a matter can be resolved, follow up action can be scheduled 2472, including but not limited to scheduling an e-purchase order for follow up or new delivery 2473, using an interactive calendar tool 2474, that involves the execution of automated distribution of relevant action for the relevant parties 2475, with relevant automated notification to the parties concerned, illustrated exemplarily as the head office 2468, its representative office, subsidiary, and branch 2469, the relevant participating restaurant 2470, and the relevant supplier and/or service provider 2471. It also allows action while in communication 2456 with the relevant parties concerned and repeating the manual process 2443. Upon completion of verification and establishing discrepancies (if any), temperature checks 2476 are conducted for all received ingredients, using a temperature measuring device 2477 that is connected to this SUDI 2425. All temperature measurements are reflected on the relevant e-document delivery invoice and discrepancies 2441 and 2442 in

a special column that reflect acceptable temperatures ranges, and in a special column that reflects the actual measurements taken. When temperatures taken from received ingredients are outside the acceptable range said ingredients are identified with a color bar, and subject to rejection **2467**. A net weight check **2478** for ingredients is also conducted using an electronic scale **2479** that is connected to this SUDI **2525**. Upon completion of temperature check **2476** and net weight check **2478**, including quality control, whereby each ingredient is processed separately using the accept or reject function tabs, illustrated under **FIG. 41**, the results are reflected in the e-delivery invoice **2441**, and the e-discrepancy document **2442** to which a plurality of signatures **2479**, illustrated under **FIG. 41**, and comments can be added using the virtual keyboard **2480**. An automated delivery report **2481** is created and communicated to the third party service module within the CCOS **1** through a local RMNS, using the delivery report function tab, illustrated under **FIG. 41**. The proceed function tab, illustrated under **FIG. 41** allows for the subsequent process to assign NFCs/RFIDs **2482** to a plurality of ingredient trays and crates, and ingredients are moved into storage **2483**, and entered into the storage inventory on the relevant storage SUDI, illustrated exemplarily under **FIG. 03/147** and **133**, and for front of house inventory, exemplarily at **FIG. 03/123** and **124**.

FIG. 43

Referring now to **FIG. 43** illustrating exemplarily a typical landing screen **2484** for a staff station SUDI, illustrated exemplarily under **FIG. 03** as **154**. The shown screen display **2484** comprises of the same upper segments **2485**, illustrated exemplarily under **FIG. 41**. Under the vertical scrollable segment **2486** is a customizable main manual **2487** comprising of an authorized staff function tab **2488** under which all members of the staff are listed, organized by front and back of house segments, and their respective stations, illustrated exemplarily for the front of house **2489** service station **1** **2490**, whereby staff member number **3** has a pending message **2491**. The login and logout function tab **2492** allows for customization to execute verification by fingerprint identification **2493** or personal SUDI identification **2494**, and a plurality of non-specified identification methods. Login and lockout activities are communicated involving the staff module within the CCOS **1** through a local RMNS to the manager's and chef's SUDSs, illustrated exemplarily under the main menus **FIG. 33/Ref 2027** and **FIG 35/Ref 2171**. There is also a message white board function tab **2495** that also show the number of not acknowledged messages **2496**. Individual white board messages **2497** can be selected that are displayed within the multi segment vertical scrollable filed **2498** in field **F-5**, whereby urgent notification **2499** like health screening compliance requirements for individual members of the staff are displayed within a sub-field of field **F-8**. Alerts **2500** are displayed in field **F-7**. There is also a working schedule function tab **2501** with a plurality of specific working schedules **2502** that display the selected working schedule within the vertical scrollable filed **F-9**, illustrated exemplarily for a weekday working schedule **2503** that is organized by staff stations, illustrated exemplarily for the teppanyaki station **1** **2504**, showing a plurality of staff working schedules and working hours **2505** by prevailing shifts that can be expanded to reflect a plurality of shifts, working hours and total working hours, illustrated exemplarily for shift **1** **2506** and shift **2** **2507**. Reflected are also potential overtimes **2508**, sick reporting **2509**, and holiday duty **2510**. Further categories can be added during customization. Within the horizontal scrollable segment **2511** are a plurality of customizable function tabs **2512**, **2513**, **2514**, **2515**, creating and adding a plurality of function and interfaces, including the uploading of working schedules to the staffs PUDIs.

FIG. 44

Referring now to **FIG. 44** illustrating exemplarily a typical landing screen **2516** for a plurality of storage station SUDIs, illustrated exemplarily under **FIG. 03** as **147, 133**. The shown screen display **2516** comprises of the same upper segments **2517**, illustrated exemplarily under **FIG. 41**. Under the vertical scrollable segment **2518** is a customized main manual **2519** comprising of a plurality of function tabs, customized for storage operations. Specific Ingredients can be searched **2520**, and the display in field **F-9** can be organized by ingredient groups **2521** in line with the ingredient inventory structure, illustrated exemplarily under **FIG. 56**. The display in field **F-9** can also be displayed by ingredients running low **2522**, most used up **2523**, and most un-used **2524**. The standard display is shown all A-Z **2525**. There is also an inspection time card **2526** displaying dates and times a particular storage was inspected, cleaning, and/or audited, with automated reporting and notification communication with the storage module within the CCOS **1** through a local RMNS that displays notifications **2527**, and send more comprehensive messages to the whiteboard function **2528**. The relevant temperature and environmental reading data **2529** is displayed in field **F-7**, that has an alarm function when the data exceeds the allowed preset setting. Within field **F-9** is the inventory display, illustrated exemplarily the ingredient inventory for a chiller storage. Displayed are the list of ingredients **2530** and the relevant inventory status **2531**. A number guide heading is shown **2532**, including the total actual used up inventory **2533**, reflecting the inventory that was removed on the displayed current day **2534**, the total projected inventory **2535**, that was forecast and placed in the storage for the current day **2534**, and the total variance **2536** between actual and projected. The darker colored fields **2537** reflect the number used up for each ingredient, showing also the total number in the last darker colored field **2538**. The lighter colored field **2539** reflect the still available inventory, also showing the total number **2540** in the lighter colored field. There is also a red colored bar indicator **2541** showing that this ingredient runs low, whereby the variance data **2536** reflects the remaining inventory. Low indication send an auto-notification to the chefs station SUDI screens **2542**, illustrated exemplarily under **FIG. 34, FIG 35/Ref: 2176** and **FIG. 36**. The same inventory display is available for the plurality of cooking station SUDIs, illustrated exemplarily under **FIG. 37** and **FIG. 38**, which when running low at the frontline inventories, send also an auto-notification to the preparation and portioning station SUDIs screen **2543**, illustrated exemplarily under **FIG. 39** and **FIG. 40** to replenish the cooking station inventory, with auto-notification to the chef station SUDI **FIG. 34, FIG 35/Ref: 2176** and **FIG. 36**. Under the multi segment vertical scrollable fields **2544** are a plurality of inventory assessment tools, also accessible from the managers and chefs station SUDI **FIG. 34, FIG. 356** and **FIG. 36**. Assessments for largest or least used ingredient quantity by week **2545** or month **2546** is executed by selecting first the relevant main function tab **2545** or **2546**, followed by selecting the relevant sub-functions. The same process applies for average week **2547** and average month **2548**, and time and/or shift based assessments for week **2549** and months **2550**. There are also report function tabs **2551** and **2552**, when selected, allow for the automated compiling of a plurality of reports that will be displayed in field **F-9**. Additional function tabs can be added and customized, illustrated exemplarily as **2553**. There is also a standard display legend **2554** in relation to the current shown display in field **F-9**. It allows for a plurality of additional icons that can be linked to a plurality of customized function tabs **2553**. Under the horizontal scrollable segment **2554** there is a print function tab **2555** that allows for the printout of a plurality of displayed data and information to a connected printer. A plurality of displayed data and information can also be saved to a designated folder **2556**, and a plurality

of reports, available under **2551** and **2552** can be merged and printed **2555** and or saved **2556**. A plurality of additional function tabs can be added and customized during customization. This ingredient inventory display mirrors the frontline inventory display for a plurality of other SUDIs that allow the display of inventory.

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FIG. 45

Referring now to **FIG. 45** illustrating exemplarily a typical landing screen **2557** for a staff station SUDI, illustrated exemplarily under **FIG. 03** as **121, 122, 123, 124, 135**. The shown screen display **2557** comprises of the same upper segments **2558**, illustrated exemplarily under **FIG. 41**. Under the vertical scrollable segment **2559** is a customized main manual **2560** comprising of a plurality of function tabs, customized for front of house operations. Illustrated are an authorized staff function tab **2561**, a login and logout function tab **2562**, a shift change function tab **2563**, a seating display **2564**, illustrated exemplarily within field **F-9**, a reservation function tab **2565**, exemplarily addressed under **FIG. 45**, a performance data function tab **2566**, also illustrated exemplarily under the manager screen **FIG. 33/Ref:2037** and the chef screen **FIG. 35/Ref: 2181**. There is also a cashier function tab **2567**, illustrated exemplarily under **FIG. 46**, and a memo function tab **2568** with indication of unread memos **2569**. When the seating function tab **2564** is selected the current seating situation, including future reservations are displayed in field **F-9**, differentiating seats that are occupied by members **2570** and non-members **2571**, and member reservations **2572** and non-member reservations **2573**. For effective floor management, there are further information displayed on the screen in field **F-9**, illustrated exemplarily the members arrival time **2574** and estimated dining duration **2575**. There are also scheduled reservation tags for seats that are currently occupied **2576** and **2577**, alerting the staff user that for said seats **2576** and **2577** is already a follow up reservation **2578** and **2579** including time information. When a particular member tag is selected, the relevant available member data is displayed **2580** within field **F-5** under the multi segment vertical scrollable field **2581**, providing the service staff with a plurality of information and dining history, including ingredient preferences **2582** and non-preferences **2583** that allows for the introduction on new and/or promotional menu items that may meet the members taste. Within the horizontal scrollable segment **2584**, are a plurality of function tabs, comprising of a member reservation function tab **2585**, that results in a member specific reservation, and a non-member reservation function tab **2586** popup window, exemplarily illustrated under **FIG. 46**. Selecting and de-selecting the show advance reservation function tab **2587** allows for the showing and hiding of the relevant corresponding reservation information in field **F-9**, and Selecting and de-selecting the show arrival and duration function tab **2588** allows for the showing and hiding of the relevant corresponding time information in field **F-9**. Further functions can be added and customized during customization, illustrated exemplarily as **2589** and **2590**. Illustrated exemplarily are also two typical service staff and management handheld SDUs **2591** and **2592**, illustrating exemplarily different possible screen layouts in which the same information, shown in the illustrated SUDI screen **2557** can be displayed and used. A north direction is also shown **2593**, and window seating is also identified **2594** and **2595**. Member and non-member users see the same screen in field **F-9** when making a reservation, allowing for online selection of seats, using symbol identification. Within the fixed segment **2596** within field **F-7**, help notifications are displayed from customers who require assistance (**Ref FIG. 09/Ref: 411**).

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FIG. 46

Referring now to **FIG. 46** illustrating exemplarily a typical landing screen **2597** for a staff station SUDI, illustrated exemplarily under **FIG. 03** as **121, 122, 123, 124, 135**. The shown screen display **2597** comprises of the same upper segments **2598**, illustrated exemplarily under **FIG. 45**. Under the vertical scrollable segment **2599** is a customized main manual, illustrated under **FIG 41** for front of house and counter operations. The main menu also embraces a plurality of non-illustrated function tabs, including inventory, and operational front of house related data and information. When selecting the reservation function tab **2600** the interactive reservation display **2601** emerges in field **F-9**. A plurality of searches can be executed, including name **2602**, member ID **2603**, reservation ID **2604**. Additional functions can be added and customized during customization, illustrated exemplarily as **2605** and **2606**. For reservation, a date can be selected **2607** on the interactive calendar display **2601**. A reservation start time can be selected **2608** using a time-turn wheel **2609**. A reservation end time **2610** (duration) can be selected **2532** using a second time-turn wheel **2611**. A holding reservation time **2612** can be selected using a third time-turn wheel **2613**. A single or plurality of seats can be selected, illustrated under **FIG. 45**. The respective reservation times **2608** and **2609** are displayed on the SUDI screen, illustrated exemplarily under **FIG 45**. An automated notification can be activated that sends a specific message at a pre-determined time **2614** to the contact numbers entered into the contact fields **2615** using the emerging popup window number pad **2616**. Response notifications are displayed under the vertical scrollable segment **2617** in field **F-7**, with the corresponding member details displayed within the multi segment vertical scrollable fields **2618** within field **F-5**. There is also a cashier's function tab **2619** display, when selected, displays and activate a cashier function **2620** within field **F-9**. Within the horizontal scrollable segment **2621**, are a plurality of function tabs that resemble the function tabs illustrated under **FIG. 45**. The front of house operation also uses wrist SUDIs **2622** that display, and allow, for a plurality of communications and notification relevant to the service provided within the front of house operation, illustrated exemplarily under **FOF 05/Ref: 220** and **251**.

FIG. 47

Referring now to **FIG. 47** illustrating exemplarily the independent interlinked and interexchangeable plurality of a higher and lower level modem including compartmentalized database modules arrangement of the present invention of the CCOS **1**. Every module and compartmentalized database contains every programming required to execute a plurality of delegated tasks, processes, and functions, applying including specific defined interfaces with a plurality of interlinked modules that allows for the rapid expansion of the system of the CCOS **1**.

Illustrated is a central operation and finance management library module **2623**. The head office **2624** is in control of every aspect and access to the central operation and finance management and library module **2623**, whereby certain tasks, processes, and functions may be assigned to its branches, representation, and subsidiaries **2625** and/or any of the plurality of participating restaurants **2626**. A plurality of third party TPDUIs **2627** and personal user device interfaces PUDIs **2628** can, upon authorization from the head office **2624**, also logon to the central operation and finance management and library module **2623**, and links to a plurality of other third parties, illustrated exemplarily as social media service providers **2629**, credit card service providers **2630**, and banking facilities **2631** can also be established.

The head office **2624**, through the central operation and finance management and library module **2623**, manages; every use and operational aspect and access in relation to the central high-level modules, comprising of the central SUDI, MSUDI, SRUDI, TPUDI, and PUDI module **2632**, whereby observing certain limitations involving PUDIs set by governing regulations; every use and operational aspect and access in relation to the central membership module **2633** and the central loyalty program module **2634**; every use and operational aspect and access in relation to the central marketing and service module **2635**; every use and operational aspect and access in relation to the centralized health and wellness module **2636**; every use and operational aspect and access in relation to the central ingredient module **2637**; every use and operational aspect and access in relation to the central storage and inventory management module **2638**; every use and operational aspect and access in relation to the central entertainment module **2639**; every use and operational aspect and access in relation to the central diabetic and related module **2640**; and every use and operational aspect and access in relation to the plurality of additional high-level modules that can be added during customization, illustrated exemplarily as **2641**. All said high-level modems, inclusive of compartmentalized databases **2632**, **2633**, **2634**, **2635**, **2636**, **2637**, **2638**, **2639**, **2640**, **2641** are linked and communicate and interface with a plurality of participating high-level restaurant modules with compartmentalized databases, illustrated exemplarily as participating restaurant 1 **2642**, including a plurality of additional participating restaurants that can be added during the expansion of operation, illustrated exemplarily as **2643**. Under each participating restaurant high-level modem, illustrated exemplarily as participating restaurant 1 **2642** are a plurality of department and/or function based low-level modules including compartmentalized databases that are linked and communicate and interface with the participating restaurant 1 **2642** high-level module. The low-level modules are illustrated exemplarily as a local management module **2644** including its own compartmentalized database, a front of house module **2645** including its own compartmentalized database, a back of house module **2646** including its own compartmentalized database, a café and bakery module **2647** including its own compartmentalized database, a fast food module **2648**, a restaurant and bar module **2649** including its own compartmentalized database, a local storage and inventory management module **2650** including its own compartmentalized database, a local staff management module **2651** including its own compartmentalized database, a local waste management module **2652** including its own compartmentalized database, a local cooking station module **2653** including its own compartmentalized database, a local preparation and portioning module **2654** including its own compartmentalized database, and a local receiving station module **2655**. Additional modems can be added during customization, illustrated exemplarily as **2656**. Additional sub-modules are structured under each of the said modules, illustrated exemplarily as **2657**. Each of the aforesaid modules **2644**, **2645**, **2646**, **2647**, **2648**, **2649**, **2650**, **2651**, **2652**, **2653**, **2654**, **2655**, **2656**, **2657** communicate and interface with and/or through each other and/or through the high level module, illustrated exemplarily as **2642** and **2643** with the plurality of high level modules **2632**, **2633**, **2634**, **2635**, **2636**, **2637**, **2638**, **2639**, **2640**, **2641**. There is also a central analytical high-level module **2658** including a compartmentalized databases, and its plurality of low-level sub-modules **2659** that collect, process, and analyze a plurality of data derived from a plurality of modules including but not limited to **2625**, **2625**, **2626**, **2627**, **2628**, **2629**, **2630**, **2631**, **2632**, **2633**, **2634**, **2635**, **2636**, **2637**, **2638**, **2639**, **2640**, **2641**, **2642**, **2643**, **2644**, **2645**, **2646**, **2647**, **2648**, **2649**, **2650**, **2651**,

2652, 2653, 2654, 2655, 2656, 2657, and allow the head office **2624** to apply said data to make a plurality of projections.

There are also a plurality of third party low-level service modules structured under a third party high level service module **2660** including a compartmentalized database. Said third party low-level modules include but are not limited to a legal services module **2661** including its own compartmentalized database; an accounting and audit service module **2662** including its own compartmentalized database; a consulting service module **2663** including its own compartmentalized database; a third party IT, CRM, hosting and data warehousing modem **2664** including its own compartmentalized database; a supply and service provider modem **2665** including its own compartmentalized database; and a call center service modem **2666** including its own compartmentalized database. Additional modems can be added during customization, illustrated exemplarily as **2667**. There is also a high level central branch, representative office, and subsidiary modem **2668** including its own compartmentalized database, allowing for a plurality of low-level branch and representative office modules **2669** and subsidiary modems **2670**.

FIG. 48

Referring now to **FIG. 48** illustrating exemplarily the plurality of base data **2671** and the relevant corresponding financial ratios **2672** utilized in relation to analytics 1 **2673** and analytics 2 **2674** embracing also individual segments **2675**, and a plurality of other analytics, illustrated under **FIG. 49, 50, 51, 52**, including a plurality of investment consideration.

FIG. 49

Referring now to **FIG. 49** illustrating exemplarily a plurality of restaurant performance **2676** analyses, illustrated exemplarily as analysis 3 **2677**, analysis 4 **2678** and their relevant corresponding breakdowns **2679, 2680, and 2681**; analysis 5 **2682**, comprising of a plurality of utilization analytics **2683**, and relevant corresponding breakdowns **2684 and 2685**, analysis 6 **2686**, comprising of customer breakdown and loyalty program, and their relevant corresponding breakdowns **2687**, allowing for a plurality of analytical projections **2688**.

FIG. 50

Referring now to **FIG. 50** illustrating exemplarily a plurality of individual station performances, comprising of analytics 7 **2689** the receiving station **2690**, analytics 8 **2691** the plurality of preparation and portioning stations **2692**, analytics 9 **2693** the plurality of pre-cooking stations **2694**, analytics 10 **2695** the plurality of storage areas and units **2696**. It allows for comprehensive infrastructure, use and cost analysis **2697** and reporting. It also allows for food waste analytics, assessment of discrepancies analysis and action taken, and reporting **2698**. It also allows for manual interaction by criteria, parameters, and data comparison of target and actual data **2699**. It also allows for the setting and customization of auto performance reporting and breakdown analysis including in the event of discrepancies **2700**, automated receiving report with subsequent action **2701**, rejection reports **2702**, including ingredient allocation for secondary use **2703**.

FIG. 51

Referring now to **FIG. 51** illustrating exemplarily a plurality of individual station performances, comprising of analytics 11 **2704** the plurality of frontline cooking stations **2705**, analytics 12

2706 the pot and dishwashing station **2707**, analytics **13 2708** the coffee roasting station **2709**, analytics **14 2710** the waste management analytics **2711**. It allows for comprehensive infrastructure, use and cost analysis **2712** and reporting. It also allows for food waste analytics, assessment of discrepancies analysis and action taken, and reporting **2713**. It also
 5 allows for manual interaction by criteria, parameters, and data comparison of target and actual data **2714**. It also allows for the setting and customization of auto performance reporting and breakdown analysis including in the event of discrepancies **2715**.

FIG. 52

Referring now to **FIG. 52** illustrating exemplarily a plurality of individual segment performances, comprising of analytics **15 2716** the fast food segment **2717**, receiving ingredients and/or food products from the preparation and portioning stations **2718**, the pre-cooking stations **2719** and/or from storage **2720**, analytics **16 2721** the bar segment **2722**, receiving ingredients and/or food products from the preparation and portioning stations **2718**,
 15 the pre-cooking stations **2719** and/or from storage **2720**, analytics **17 2723** the bistro and teppanyaki segment **2724**, receiving ingredients and/or food products from the preparation and portioning stations **2718**, the pre-cooking stations **2719** and/or from storage **2720**, analytics **18 2725** the café and bakery segment **2726**, receiving ingredients and/or food products from the preparation and portioning stations **2718**, the pre-cooking stations **2719**
 20 and/or from storage **2720**. It allows for comprehensive infrastructure, use and cost analysis **2727**. It also allows for food waste analytics, assessment of discrepancies analysis and action taken, and reporting **2728**.

FIG. 53

Referring now to **FIG. 53** illustrating exemplarily a typical landing screen **2729** for a head office SUDI, and a plurality of representation, branch, or subsidiary offices SUDIs, illustrated exemplarily under **FIG. 01/Ref: 02** and **03**. The shown screen display **2729** comprises in its arrangement of the same upper segments **2730**, illustrated exemplarily under **FIG. 41**, whereby SUDIs situated within the head office will identify a symbol function tabs **2731** related
 30 to head office within the main function tab **2732**. SUDIs situated within representation, branch, or subsidiary offices, illustrated exemplarily a branch office **2733**, identify the relevant branch office **2733**. Under the upper segment of a plurality of function tabs are department function tabs and links the third party segments including links **2734** that can be extended to allow for additional function tabs. It allows for a three tier structure **2735**, allowing for the selection of a department **2736**, a sub-section of a department **2737** and a particular positions and/or SUDI stations **2738**. All three levels can be customized. In the lower function tab segment are a plurality of operational function tabs **2739** that allow for separate and joint selection to customize and/or transform a single or plurality of realtime screen displays in field **F-9**,
 35 illustrated exemplarily as two vertical and horizontal movable displays **2740** and **2741**. In the shown example, the display of information in field **F-9** is relevant and corresponding to information derived from a plurality of selected participating restaurants, illustrated exemplarily as **2742** and **2743** in the lower portion of the vertical scrollable segment **2744**. A selection made within a particular district **2745**, illustrated exemplarily as district B **2746**. Realtime information can also be shown in field **F-9** relevant to the entire group **2747**, by country **2748**,
 40 by region **2749**, by county **2750**, and/or by city **2751**. Additional function tabs can be added under the vertical scrollable segment **2752** within the upper segment **2753**, illustrated exemplarily as **2754**, and in the lower part **2744**, illustrated exemplarily as **2755** and **2756**.

The notification field **2757** in the fixed segment **2758** displays realtime incoming notification that can come from any party throughout the organization.

Within field **F-5** under the multi segment vertical scrollable fields **2759** in the upper vertical scrollable segment **2760** are a plurality of customizable function specific function tabs. In the shown example, it allows authorized staff to drill down further into a selected restaurants, exemplarily restaurant 1 **2761**, viewing the managers screen **2762** illustrated exemplarily under **FIG. 32** in realtime. This segment allows further customization to include any other screen within a participating restaurant as illustrated with **2741**. Under the multi segment vertical scrollable fields **2759**, within filed **F-5**, the lower vertical scrollable segment **2763** are a plurality of customizable function tabs that can be assigned during customization to suit a particular office and/or SUDI station. Under the horizontal scrollable segment **2764** are a plurality of horizontal scrollable function tabs, comprising of a print function tab **2765**, a print to folder function tab **2766** that allows for a popup window function to select a single or plurality of designated folders. There is also a merged report function tab **2767**. It allows the merging of reviewed and displayed data and information in report format when a select icon, illustrated exemplarily as **2768** and **2769** was selected. There is also a compile monthly report function tab **2770** that, when selected, automatically compiles a monthly report that can be customized, printed **2765** and/or saved. Customization is executed by selecting first the customize by selecting individual report components that have been previously established using the customizable functions under **2763**, allowing for a plurality of options and variations. The same applies for the compile annual report **2771** and the compile interim report **2772**, whereby the said plurality of reports can be tailored to include and/or merge the entire group **2747**, a single or plurality of countries **2748**, a single or plurality of regions **2749**, a single or plurality of counties **2750**, a single or plurality of cities **2751**, a single or plurality of city districts **2745** or a single or plurality of participating restaurants **2742** and **2743**. Within the horizontal scrollable segment **2773** is a variance to other screen displays. There are authorization ID levels for each authorized member of the staff. All authorization levels throughout the CCOS **1** can be set under the authority setting function tab **2774**. There is also the display when a member of the staff has signed in and signed out **2775**, providing other members of the staff, who might be within a different area or room relevant information. The customization function **2776**, when activated allows for the customization of the plurality of customizable function tabs **2763** within a popup window that allows a plurality of functions and processes to be linked.

FIG. 54

Referring now to **FIG. 54** illustrating exemplarily a typical online landing screen **2777** for a plurality of third party product and service providers and a plurality of loyalty product and service providers TPUDIs, illustrated exemplarily under **FIG. 01, 11, and 12**. The shown screen display **2777** comprises in its arrangement of the same upper segments **2778**, illustrated exemplarily under **FIG. 41**, whereby the identification display **2779** will change depending on the respective third party that is logged in, illustrated exemplarily under **FIG. 02/Ref: 55, 56 and 57**, and Illustrated exemplarily for this screen **2777** as a product supplier identification **2780**, a service provider identification **2781**, a loyalty product and/or service provider identification **2782**. There are a plurality of horizontal scrollable function tabs **2783**, that allow for a two tier structure **2784**, allowing for the selection of a main function group **2785** and a sub-group **2786** that comprise of a plurality of relevant documents, forms, and functions. Illustrated exemplarily for a product supplier **2780** there is a main group for contracts **2787**,

comprising of a plurality of standard online contracts and agreements that a product supplier **2780** can review, comment, and execute online. A product supplier can select from a plurality of online quotation formats under the quotation function tab **2788**, and complete and submit a quotation online. Under said sub-function, a product supplier can also scan quotation documents and upload and submit such quotations. A product supplier can also complete a plurality of online delivery invoices **2789** corresponding to received e-purchase orders. It allows for an expedient delivery process, illustrated exemplarily under **FIG. 42**. A product supplier can also revise existing submitted online documents **2790** to correct errors and/or update said documents. A plurality of reports **2791** can also be furnished and submitted. A product supplier can also establish and amend signature authority **2792** for delivery staff and/or management staff with signature and/or decision authority, illustrated exemplarily under **FIG. 42/Ref: 2749**, and replace existing submitted documents **2793** in the event said documents need to be exchanged. A product supplier can also select the communication function tab **2794**, that displays the point of contact and other relevant contact information, similar as illustrated exemplarily under **FIG. 41/Ref: 2145** in field **F-4**. A product supplier can execute an ad-hoc urgent delivery **2795** inclusive of relevant corresponding documents, schedule and enter delivery times **2796** into an online delivery schedule to avoid waiting time and congestions at the point of delivery; and when required due to unforeseen circumstances change delivery time **2797**, or cancel delivery **2798**. The main panel under the vertical scrollable segment **2799** allows activation of the execution **2800** of a displayed e-document after an e-document was selected, illustrated exemplarily a delivery invoice **2801** under the function tab **2789**. Upon completion of the e-form of a delivery invoice **2801** in field **F-9** it can be converted into a hard copy document, using the convert into document function tab **2802**, resulting in the display of the hardcopy document **2803** in field **F-9**. If changes become necessary, it allows a toggle switch on the respective document allows for switching between the hardcopy and the e-form until completion. A product supplier can also upload an own company logo **2804** onto a hardcopy document. A product supplier can also review past delivery and relevant corresponding performances **2805**. Additional function tabs can be added during customization, illustrated exemplarily as **2806**. Loyalty service and product providers **2782** can also execute online documents covered by the plurality of function tabs **2783**, and submit online coupons **2807** and/or barcode discount coupons **2808**, and/or a plurality of non-specified coupons **2809**. Under the horizontal scrollable segment **2810** is the display that identifies the respective authorized members of the staff who are authorized to execute transactions, whereby authorization levels can be set also under signature authorization function tab **2792**. Field **F-5** under the multi segment vertical scrollable fields **2811** and the horizontal scrollable segment **2812** in field **F-6** is reserved for customization of a plurality of interfaces **2813** to allow product suppliers **2780**, service providers **2781**, the plurality of loyalty service and product providers **2782** to establish corporate accounts that allow for interface integration with said providers own online operations. Under the fixed segment **2814** is the information and notification display **2815** that displays specific messages and/or notifications designated for a logged in third party.

FIG. 55

Referring now to **FIG. 54** illustrating exemplarily a typical landing screen **2816** accessible to private **2817**, corporate **2818** member **2819** users **2821** and their respective sub-member **2820** users **2821** as home online service screen that allows member **2819** users **2821** to cook ordered ready portioned dishes, delivered and/or collected from a participating restaurant at

home, illustrated exemplarily under **FIG 10/Ref: 564, 565** and **FIG. 13/Ref: 731,733, 734**. Member **2819** users **2821** have the same screen **2816** available to them on their PUDI as a line cook has on a SUDI when cooking a ordered menu item, illustrated exemplarily under **FIG. 37**. When an order is delivered and/or collected **2822**, member **2819** users **2821** select within the horizontal segment **2823** the recipe search function tab **2824**. An interactive popup window emerges and a member **2819** users **2821** enters the barcode number **2825** in a field. When the member **2819** users **2821** has a barcode reading device, the barcode on the menu item package **2825** can be read. When the search is activated, the CCOS **1** system searches, resulting in the display of the relevant cooking instructions **2826**, that mirror in its application and functions the cooking instruction for a line cook of a participating restaurant, illustrated exemplarily under **FIG. 37**, whereby the name of the dish **2827** is displayed in the fixed segment **2828**, and the other details are displayed within the vertical scrollable field **2829**. The cooking process is activated when the cooking function tab **2830** is activated. A cooked dish recipe can be customized and saved into a personal menu, that is the same personal menus illustrated exemplarily under **FIG. 10**, allowing for original or customized replication within a participating restaurant. To customize a ordered dish can be executed by keeping the cooking instruction open (displayed on screen) and selecting the recipe function tab **2831**, resulting in the display of the recipe screen **2832**, illustrated exemplarily under **FIG. 34**, whereby a determination can be made to assign the recipe to a single or plurality of member **2819** users **2821**, illustrated exemplarily the father **2833**, the mother **2834**, and the son **2835**. Own personal private menus can be established **2836** for competition purposes, illustrated exemplarily under **FIG. 14**. A Food Inventory can also be created **2837**, that follows the same ingredient inventory structure illustrated under **FIG. 56** for own household use. Member **2819** users **2821** can access the home menu **2838** on the member menu **2839** and return to the member menu **2839** when selecting the menu function tab **2840**. Authorised members are identified under the horizontal scrollable segment **2841**. The function tabs **2842** and **2843** are reserved to accommodate customizable interface functions involving other third party menu and/or recipe platforms and services used by member **2819** users **2821**. The main menu **2844** of the recipe screen display **2832** allows has a recipe and menu economics function tab **2845** that summarises the costs of ingredients applying customizable ratios and margins, illustrated exemplarily under **FIG. 34**, and allows application for weeks, month and annual data, which allows member **2819** users **2821** to work with customizable home meal budgets. Using the shopping list function tab **2846** a plurality of shopping lists can also be created, that can be converted into a plurality of menu item ingredients order. There is also a place order function **2847** that can be forwarded to home delivery services of a participating restaurant for ready portioned sets of menu item ingredients, illustrated exemplarily as restaurant 2 **2848**. Or, an order list or parts thereof can be send **2849** to other Member **2819** users **2821**, illustrated exemplarily as mom **2850**. Within the horizontal scrollable segment of screen **2751**, there is a function tab for printing **2852** a recipe, or filing it into a designated personal menu folder **2853**. A recipe can also be submitted for competitions **2854**, illustrated exemplarily under **FIG.14**, and **FIG. 09/Ref: 457**, or share it with others **2855**, illustrated exemplarily under **FIG.14**. Member **2819** users **2821** can, when selecting the dishes **2856** and/or beverages **2857** function tabs, retrieve previous cooked and/or prepared dishes **2856** and beverages **2857** in a list format displayed within field **F-5** under the multi segment vertical scrollable fields **2858**. Other function tabs can be added during customization, illustrated exemplarily as **2859**.

FIG. 56

Referring now to **FIG. 55** illustrating exemplarily the typical ingredient inventory identification and organization structure **2860** that applies to a plurality of relevant processes throughout the entire CCOS **1** involving the entire ingredient inventory. Illustrated exemplarily is the ingredient structure reflected under **FIG. 09** and **FIG. 27** for a plurality of exemplarily ingredients comprising of vegetables **2861**, fruits **2862**, meats **2861**, fish and seafood **2862**, and a plurality of others **2863**. Under vegetables **2861**, the main ingredient category, illustrated exemplarily under **FIG. 27/Ref 1706**. The first sub-level ingredient subcategories 1-2, illustrated exemplarily under **FIG. 27/Ref:1710** distinguishes between starchy vegetable **2864**, non-starchy vegetables **2865**, vegetables high in vitamins **2866**, vegetables with high nutrition **2867**, vegetables listed as superfood **2868**, and a plurality of other non-specified categories **2869**. The subsequent sub-level of ingredient sub-categories 2-1, illustrated exemplarily under **FIG. 27/Ref:1712** distinguishes by color, between green vegetables **2870**, red vegetables **2871**, orange/yellow vegetables **2872** and a plurality of other non-specified colors **2873**. The following level of exchangeable ingredients, illustrated exemplarily under **FIG. 27/Ref:1713** identifies the vegetable by name, illustrated exemplarily as **2874**, **2875**, **2875**, **2876**, **2877**, **2878**, and a plurality of non-specified **2879**. This exchangeable ingredient level identifies and shows the plurality and range of health, wellness, and diabetic information illustrated exemplarily under **FIG. 27/Ref: 1687, 1688, 1689** including the relevant vitamin, GI/GL, gluten, and diabetic exchanges **2880**. Within the ingredient inventory organization structure is also a customizable function where the loss and or gain of nutrition values during a cooking process for a plurality of ingredients can be established and applied for a plurality of cooking processes **2881**. Said values are set in percent based on raw ingredient data, and can also be displayed on the recipe screen **2882**, illustrated exemplarily under **FIG. 34**. It also allows for customized nutrition intake, portioning, and diabetic settings illustrated exemplarily under **FIG. 17, 18, 19**. Under fruits **2862**, the main ingredient category, illustrated exemplarily under **FIG. 27/Ref 1706** identifies the ingredient group being fruits **2862**, with the first sub-level of main ingredient subcategories 1-2, illustrated exemplarily under **FIG. 27/Ref:1710** distinguishing between starchy fruits **2883**, non-starchy fruits **2884**, fruits high in vitamins **2885**, fruits with high nutrition **2886**, fruits listed as superfood **2887**, and a plurality of other non-specified categories **2888**. The subsequent sub-level of ingredient sub-categories 2-1, illustrated exemplarily under **FIG. 27/Ref:1712** distinguishes colors between green fruits **2889**, red fruits **2890**, orange/yellow fruits **2891** and a plurality of other non-specified **2892**. The following level of exchangeable ingredients, illustrated exemplarily under **FIG. 27/Ref:1713** identifies the fruits by name, illustrated exemplarily as **2893**, **2894**, **2895**, **2896**, **2897**, and a plurality of non-specified **2898**. This exchangeable ingredient level identifies and shows the plurality and range of health, wellness, and diabetic information illustrated exemplarily under **FIG. 27/Ref: 1687, 1688, 1689** including the relevant vitamin, GI/GL, gluten, and diabetic exchanges **2899**. Within the ingredient inventory organization structure is also a customizable function where the loss and or gain of nutrition values during a cooking process for a plurality of ingredients can be established and applied for a plurality of cooking processes **2900**. Said values are set in percent based on raw ingredient data, and can also be displayed on the recipe screen **2901**, illustrated exemplarily under **FIG. 34**. It also allows for customized nutrition intake, portioning, and diabetic settings illustrated exemplarily under **FIG. 17, 18, 19**. Under meats **2861**, the main ingredient category, illustrated exemplarily under **FIG. 27/Ref 1706** identifies the ingredient group being meats **2861**, with the first sub-level of main ingredient subcategories 1-

2, illustrated exemplarily under **FIG. 27/Ref:1710** distinguishing between pork **2902**, lamb **2903**, beef and veal **2904**, chicken **2905**, other meats **2906**, and a plurality of other non-specified categories **2907**. The subsequent sub-level of ingredient sub-categories 2-1, illustrated exemplarily under **FIG. 27/Ref:1712** distinguishes between lean **2908**, medium lean **2909**, medium fat **2910** and a plurality of other non-specified **2911**. The following level of exchangeable ingredients, illustrated exemplarily under **FIG. 27/Ref:1713** identifies the meat by cut type, illustrated exemplarily as flank steak **2912**, eye of ramp **2913**, brisket **2914**, topside **2915**, short ribs **2916**, and a plurality of non-specified **2917**. This exchangeable ingredient level identifies and shows the plurality and range of health, wellness, and diabetic information illustrated exemplarily under **FIG. 27/Ref: 1687, 1688, 1689** including the relevant vitamin, GI/GL, gluten, and diabetic exchanges **2918**. Within the ingredient inventory organization structure is also a customizable function were the loss and or gain of nutrition values during a cooking process for a plurality of ingredients can be established and applied for a plurality of cooking processes **2919**. Said values are set in percent based on raw ingredient data, and can also be displayed on the recipe screen **2920**, illustrated exemplarily under **FIG. 34**. It also allows for customized nutrition intake, portioning, and diabetic settings illustrated exemplarily under **FIG. 17, 18, 19**. Under fish and seafood **2762**, the main ingredient category, illustrated exemplarily under **FIG. 27/Ref 1706** identifies the ingredient group being fish and seafoods **2762**, with the first sub-level of ingredient subcategories 1-2, illustrated exemplarily under **FIG. 27/Ref:1710** distinguishing between low carb high nutrition **2921**, high protein **2922**, low calories **2923**, high calories **2924**, super food fish **2925**, and a plurality of other non-specified categories **2926**. The subsequent sub-level of ingredient sub-categories 2-1, illustrated exemplarily under **FIG. 27/Ref:1712** distinguishes between fish groups **2927**, seafood groups **2928**, shellfish groups **2929** and a plurality of other non-specified **2930**. The following level of exchangeable ingredients, illustrated exemplarily under **FIG. 27/Ref:1713** identifies the fish and seafood by name, illustrated exemplarily as **2931, 2932, 2933, 2934, 2935**, and a plurality of non-specified **2936**. This exchangeable ingredient level identifies and shows the plurality and range of health, wellness, and diabetic information illustrated exemplarily under **FIG. 27/Ref: 1687, 1688, 1689** including the relevant vitamin, GI/GL, gluten, and diabetic exchanges **2937**. Within the ingredient inventory organization structure is also a customizable function were the loss and or gain of nutrition values during a cooking process for a plurality of ingredients can be established and applied for a plurality of cooking processes **2938**. Said values are set in percent based on raw ingredient data, and can also be displayed on the recipe screen **2939**, illustrated exemplarily under **FIG. 34**. It also allows for customized nutrition intake, portioning, and diabetic settings illustrated exemplarily under **FIG. 17, 18, 19**. Other food groups include but are not limited to carbohydrates, cereals and grains **2940**, milk and dairy products **2941**, proteins general **2942**, fatty foods **2943**, sauces and pastes **2944**, herbs and spices **2945**, and a plurality of other non-specified **2946** follow the similar three tier level approach. The ingredient structure allows for individual ingredient pricing that is used for customized and created menu items.

FIG. 57

Referring now to **FIG. 57** illustrating exemplarily the typical intelligent service mat (ISM), referred to under **FIG. 05**. A complete set of an ISM consists of a customized manufactured mat of three layers that can be of different sizes, shapes and dimension, illustrated exemplarily as a square ISM that can be grouped, illustrated exemplarily as ISM **2947, 2948, 2949**, or of round shape, illustrated exemplarily as ISM **2950** or another shape and size. The

lower **2951** and top **2952** layer of the ISM is made from waterproof treated PVC/Vinyl with a thickness of 2mm on which decorations can be printed and/or affixed. The two layers **2951** and **2952** embracing a conducting fibre sensor mat in which a set of customizable and programmable waterproof and +95° Celsius heat resistant long range NFC/RFID device are embedded **2953** and connected to the conducting fibre sensor mat. The plurality of fringes around the two layers **2951** and **2952** of the ISM are sealed **2954**. At one position, which can be varied, a set of customizable and programmable waterproof and +95° Celsius heat resistant long range NFC/RFID device connected to a customizable digital display is embedded **2955**. An exemplarily enlargement of the digital display is shown **2956**. The customizable digital display allows for the display of the ISMs position **2957**, identifying the position within a restaurant envelope. When a tableware, illustrated exemplarily as a plate **2958** on which a Set of customizable and programmable waterproof and +95° Celsius heat resistant long range Full Duplex NFC devices is affixed **2959** comes in close proximity to a ISMs with the embedded set of customizable and programmable waterproof and +95° Celsius heat resistant long range customizable and programmable waterproof and +95° Celsius heat resistant long range NFC/RFID device **2953**, the said NFC/RFID interrogates, communicates, and identifies the customizable and programmable waterproof and +95° Celsius heat resistant long range Full Duplex NFC device. A successful communication between the set of customizable and programmable waterproof and +95° Celsius heat resistant long range customizable and programmable waterproof and +95° Celsius heat resistant long range NFC/RFID device and the customizable and programmable waterproof and +95° Celsius heat resistant long range Full Duplex NFC device results in the transfer of the plurality of data from the said Full Duplex NFC to the set of customizable and programmable waterproof and +95° Celsius heat resistant long range customizable and programmable waterproof and +95° Celsius heat resistant long range NFC/RFID device, and the display of said data on the customizable digital display, illustrated exemplarily the table number **2960**, the seat number **2961** and the order number **2962**; and if available the name of the recipient **2963** of the order. ISMs are placed on service counters, illustrated exemplarily at the cooking stations, the café service counter, the fast food counter, and/or the bar service counter. At said service counters are overhead photocameras with sensor **2964** that take pictures of the dishes and/or beverages that are placed on the ISM **2965**. This is a service offered to member customers who customized and/or created dishes and beverages and wish to have a picture for their personal menus. The transfer of pictures is executed through the set of customizable and programmable waterproof and +95° Celsius heat resistant long range NFC/RFID devices **2966** capturing and sending the pictures to the CCOS 1 through a local RMNS **2967** to the member customers account that can be accessed through the restaurant provided MRUDIs or SUDIs, or the members own PUDI. There is also a manual action safeguard. In the event the overhead photocamera with sensor **2964** fails to take a picture, the position identification **2957** can serve as manual action trigger.

In one exemplary implementation, there is provided a system for implementing a centralized customizable operating solution, comprising: a central server module that is in communication with a plurality of input modules and a plurality of execution modules, wherein each input module is configured to accept inputs from a user relating to customized operations associated with the user; wherein the central server module is configured to: generate corresponding outputs based on the accepted inputs; and transmit each output to a relevant execution module for execution of the output.

The aforementioned customized operations associated with the user include, but are not limited to: tasks, processes, functions and requirements that are specifically selected or chosen by the user. In this manner, each generated output is related to at least one task, process, function and/or requirement that is specifically selected or chosen by the user.

The aforementioned system for implementing a customizable operating solution further includes one or more data sources. For example, a data source may be a database.

The aforementioned step of generating corresponding outputs based on the accepted inputs includes, but is not limited to the sub-step of: accessing the one or more data sources to retrieve relevant customizable auto calculations, algorithms and/or rules to facilitate generation of the corresponding outputs.

The acceptance of the inputs from the user depends on an attribute of the user. In this context, the user includes, but is not limited to: a customer, a staff member or a third party. In this context, an attribute includes, but is not limited to: membership status and customer privilege/priority level. For example, a member or a customer with a higher privilege/priority level has access to more customized operations compared to a nonmember or a customer with a relatively lower privilege/priority level. As another example, a staff member with a specific or higher access/privilege/priority level has access to more customized operations compared to staff members with a relatively restricted access or lower privilege/priority level.

The aforementioned outputs include, but are not limited to: computer executable instructions, output signals and notifications.

The aforementioned execution module may be an intelligent cooking station or a service counter placemat. The intelligent cooking station and the service counter placemat can execute instructions received from the central server module.

The intelligent cooking station and/or the service counter placemat can utilize tableware identification and tracking (e.g. via RFID) to facilitate execution of the instructions.

The aforementioned execution module may be also be an inventory management module that utilizes product and product container identification and tracking (e.g. via RFID) for inventory management.

One or more of the aforementioned input modules may be connected to a data acquisition module. The data acquisition module is configured to generate an input based on its application data. For example, a data acquisition module may be a temperature sensor or barcode scanner. The temperature sensor can provide inputs (in the form of temperature readings) to an associated input module.

In one exemplary implementation, to facilitate directing and tracking of communications (e.g. accepted inputs and corresponding outputs) between the central server module and the plurality of input and execution modules, each of the plurality of input and execution modules are configured to identify themselves to each other using unique identification codes when

communicating with each other. For example, each MSUDI, SRUDI, SUDI, TPUDI, and PUDI has its own unique identification code, and each user (e.g. Staff, Member, or Third Parties etc..) has his/her own unique login identification code. This enables the central server module to identify, direct, and execute communications within the CCOS environment that is described above. Furthermore, the central server module and each of the plurality of input and execution modules can be configured to establish and record: (i) commencement of execution of a corresponding output by a particular execution module and (ii) subsequent progress stages of communications between the central server module and each of the plurality of input and execution modules.

Moreover, the communications between the central server module and the plurality of input and execution modules may also include a plurality of unique process codes and action identification codes to identify, guide, and execute the corresponding outputs (which may be customizable and programmed actions and processes). In particular, there may be provided a list of customizable and expandable action and process codes that allow the central server module to guide and execute actions and processes throughout the CCOS environment.

The CCOS may be configured for automated action. In particular, the central service module and the plurality of input and execution modules can be configured to recognize, and automatically act upon, when a plurality of customizable and pre-set parameters are met, exceeded or breached, and automatically commence action, processes, and communications between the central server module and the plurality of input and execution modules. For example, if a frontline inventory runs low, the CCOS automatically notifies the relevant preparation/portioning stations and other SUDIs (inventory service staff) to re-fill inventory, and to update required ingredient orders etc. As another example, with reference to the Central High Level Analytical Module (Ref: FIG 47/2658), the CCOS can automatically verify, generate, and communicate in real time with the relevant SUDIs if pre-set parameters (e.g. Analytics 1 to 18 described above) exceed pre-set parameters for action to be taken.

A method for implementing a centralized customizable operating solution, comprising: providing a central server module that is in communication with a plurality of input modules and a plurality of execution modules, configuring each input module to accept inputs from a user relating to customized operations associated with the user; configuring the central server module to: generate corresponding outputs based on the accepted inputs; and transmit each output to a relevant execution module for execution of the output.

CLAIMS

1. A system for implementing a centralized customizable operating solution used by a business, a customer and a third party, comprising:

a central server module that is in communication with a staff input module, a customer input module, a third party input module and a plurality of execution modules, wherein:

the staff input module is configured to accept inputs from a staff member relating to products and services associated with the business;

the customer input module is configured to accept inputs from the customer relating to customized operations associated with the customer, the customized operations associated with the customer comprising at least one of: tasks, processes, functions and requirements that are selected or input by the customer; and

the third party input module is configured to accept inputs from a third-party member relating to products and services associated with the third party; and

at least one data source module that is in communication with the central server module, the at least one data source module having stored therein one or more data sources,

wherein the central server module is configured to:

access the one or more data sources to retrieve a relevant calculation, algorithm and/or rule;

generate at least one corresponding personalized output based on the accepted inputs from the staff input module, the customer input module and the third party input module, wherein the at least one corresponding personalized output is based on:

(i) the tasks, processes, functions and/or requirements that are selected or input by the customer;

(ii) the inputs from the staff member relating to the products and services associated with the business;

(iii) the inputs from the third-party member relating to the products and services associated with the third party and

(iv) the retrieved relevant calculation, algorithm and/or rule; and

transmit the at least one corresponding personalized output to a selected one of the plurality of execution modules for execution of the at least one corresponding personalized output.

2. The system as claimed in claim 1, wherein the customer input module is further configured to determine an attribute of the customer such that acceptance of the inputs from the customer is based on the determined attribute of the customer.
3. The system as claimed in claim 2, wherein the attribute of the customer comprises a membership status or a customer priority level.
4. The system as claimed in any one of the preceding claims, wherein the at least one corresponding personalized output comprises at least one of: computer executable instructions, output signals and notifications.
5. The system as claimed in claim 4, wherein each of the plurality of execution modules comprises either an intelligent preparation and processing station, an intelligent cooking station or a service counter placemat or customer table, that is configured to execute the computer executable instructions received from the central server module.
6. The system as claimed in claim 5, wherein the intelligent preparation and processing station, the intelligent cooking station, or the service counter placemat or customer table comprises tableware identification and tracking devices to facilitate execution of the computer executable instructions.
7. The system as claimed in claim 4, wherein each of the plurality of execution modules comprises an inventory management module that is configured to track inventory using product identification and tracking devices.
8. The system as claimed in any one of the preceding claims, wherein at least one of the staff input module, the customer input module, and the third party input module is in communication with a data acquisition module that is configured to generate input data for at least one of the staff input module, the customer input module, and the third party input module based on acquired data.
9. A method for implementing a centralized customizable operating solution used by a business, a customer and a third party, comprising:

providing a central server module that is in communication with a staff input module, a customer input module, a third party input module, and a plurality of execution modules;

providing at least one data source module that is in communication with the central server module, the at least one data source module having stored therein one or more data sources;

configuring: (i) the staff input module to accept inputs from a staff member relating to products and services associated with the business, (ii) the customer input module to accept inputs from the customer relating to customized operations associated with the customer, the customized operations associated with the customer comprising at least one of: tasks, processes, functions and requirements that are selected or input by the customer, and (iii) the third party input module to accept inputs from a third-party member relating to products and services associated with the third party, and

configuring the central server module to:

access the one or more data sources to retrieve a relevant calculation, algorithm and/or rule;

generate at least one corresponding personalized output based on the accepted inputs from the staff input module, the customer input module and the third party input module, wherein the at least one corresponding personalized output is based on: (i) the tasks, processes, functions and/or requirements that are selected or input by the customer; (ii) the inputs from the staff member relating to the products and services associated with the business; (iii) the inputs from the third-party member relating to the products and services associated with the third party and (iv) the retrieved relevant calculation, algorithm and/or rule; and

transmit the at least one corresponding personalized output to a selected one of the plurality of execution modules for execution of the at least one corresponding personalized output.

10. The method as claimed in claim 9, further comprising:

configuring the customer input module to determine an attribute of the customer such that acceptance of the inputs from the customer is based on the determined attribute of the customer.

11. The method as claimed in claim 10, wherein the attribute of the customer comprises a membership status or a customer priority level.

12. The method as claimed in any one of claims 9 to 11, wherein the at least one corresponding personalized output comprises at least one of: computer executable instructions, output signals and notifications.

13. The method as claimed in claim 12, wherein each of the plurality of execution modules comprises either an intelligent preparation and processing station, an intelligent cooking station, or a service counter placemat or customer table, wherein the method further comprises configuring the intelligent preparation and processing station, the intelligent cooking station, or the service counter placemat or customer table to execute the computer executable instructions received from the central server module.

14. The method as claimed in claim 13, wherein the intelligent preparation and processing station, the intelligent cooking station, or the service counter placemat or customer table comprises tableware identification and tracking devices to facilitate execution of the computer executable instructions.

15. The method as claimed in claim 12, wherein each of the plurality of execution modules comprises an inventory management module, wherein the method further comprises configuring the inventory management module to track inventory using product identification and tracking devices.

16. The method as claimed in any one of claims 9 to 15, wherein at least one of the staff input module, the customer input module, and the third party input module is in communication with a data acquisition module, wherein the method further comprises configuring the data acquisition module to generate input data for at least one of the staff input module, the customer input module, and the third party input module based on acquired data.