

AN INVENTORY MANAGEMENT SYSTEM AND METHOD

TECHNICAL FIELD

[0001] This invention relates to an inventory management system and method. More particularly, this invention relates to an inventory management system and method for cooking ingredients.

BACKGROUND

[0002] The following discussion of the background to the invention is intended to facilitate an understanding of the present invention only. It should be appreciated that the discussion is not an acknowledgement or admission that any of the material referred to was published, known or part of the common general knowledge of the person skilled in the art in any jurisdiction as at the priority date of the invention.

[0003] Ingredients for cooking are seldom managed well in a home. When one goes to the supermarket, one tends to buy ingredients on impulse thinking that he/she will need them. And even if the bought ingredients are subsequently used, they are seldom finished in one go. The ingredients get stored either in the refrigerator or kitchen cabinet. Those that are out of sight usually go unnoticed and therefore unused for a long period of time. When the owner subsequently realizes the ingredients existed, they would have very likely expired. This leads to unnecessary wastage of the ingredients.

[0004] And even if the person is diligent in keeping tabs of the ingredients he/she has, it may not be easy for the user to decide what to use them for and to know what kind of dishes he/she can cook with them, especially in an efficient manner.

[0005] There is therefore a need for a system which addresses, at least in part, one or more of the forgoing problems.

SUMMARY

[0006] According to an aspect of the present disclosure, there is provided a method for managing inventory. The method includes receiving an ingredient inventory list from a user, storing and retrieving the ingredient inventory list, retrieving one or more recipes that require at least a substantial portion of ingredients in the

ingredient inventory list, and providing the user with the retrieved one or more recipes.

[0007] In some embodiments of the method, the method further includes the user obtaining the ingredient inventory list either by scanning barcodes of ingredients the user has or processing a photograph of ingredients the user has to generate the ingredient inventory list.

[0008] In some embodiments of the method, retrieving at least one recipe includes retrieving at least one recipe that requires at least a substantial portion of the ingredients in the ingredient inventory list and meets one or more criteria of the user.

[0009] In some embodiments of the method, the one or more criteria includes cooking equipment to be used, cooking time required, and/or cooking experience of the user.

[0010] In some embodiments of the method, the method further includes receiving a request from the user to purchase ingredients associated with a recipe, and storing the ingredients in a shopping list of the user.

[0011] In some embodiments of the method, the method further includes providing the user with at least one store where the user can purchase the ingredients in the shopping list, allowing the user to select a store from the at least one store, obtaining an aisle number in the selected store for each ingredient in the shopping list, and providing the user with aisle numbers of the ingredients in the shopping list sorted in either an ascending order or descending order according to the aisle numbers.

[0012] In some embodiments of the method, the method further includes receiving a request from the user to remove purchased ingredients from the shopping list, and adding them to the ingredient inventory list.

[0013] In some embodiments of the method, the method further includes consolidating and providing ingredients purchased by users in a geographical location to at least one store in the geographical location.

[0014] In some embodiments of the method, the method further includes receiving a request from the user to reduce the ingredients in the ingredient inventory list that are used to cook from a recipe, and updating the ingredient inventory list to reduce the ingredients used to cook from the recipe.

[0015] In some embodiments of the method, the method further includes receiving a request for a recipe to be added to a database, and updating the database with the recipe.

[0016] In some embodiments of the method, the method further includes providing information relating to a cooking competition, receiving recipe entries for the competition, opening the recipe entries to voting by users, determining the winning recipe entries based on votes from the users, and updating the database with the winning recipes.

[0017] According to another aspect of the present disclosure, there is provided a server that is operable to perform steps of the above-described method. The centralized server includes a processor and a database. The processor is operable to receive an ingredient inventory list from a user, store and retrieve the ingredient inventory list in the database, retrieve one or more recipes that require at least a substantial portion of ingredients in the ingredient inventory list, and provide the user with the retrieved one or more recipes.

[0018] In some embodiments of the system, the processor is operable to retrieve at least one recipe that requires at least a substantial portion of the ingredients in the ingredient inventory list and meets one or more criteria of the user.

[0019] In some embodiments of the system, the one or more criteria includes cooking equipment to be used, cooking time required, and/or cooking experience.

[0020] In some embodiments of the system, the processor is further operable to receive a request from the user to purchase ingredients associated with a recipe, and store the ingredients in a shopping list of the user in the database.

[0021] In some embodiments of the system, the processor is further operable to provide the user with at least one store where he can purchase the ingredients in the shopping list, allow the user to select a store from the at least one store, obtain an aisle number in the selected store for each ingredient in the shopping list, and provide the user with aisle numbers of the ingredients in the shopping list sorted in either an ascending order or descending order according to the aisle numbers.

[0022] In some embodiments of the system, the processor is further operable to receive a request from the user to remove purchased ingredients from the shopping list, and add them to the ingredient inventory list.

[0023] In some embodiments of the system, the processor is further operable to consolidate and provide ingredients purchased by users in a location to at least one store in the location.

[0024] In some embodiments of the system, the processor is further operable to receive a request from the user to reduce the ingredients in the ingredient inventory list that are used to cook from a recipe, and update the ingredient inventory list to reduce the ingredients used to cook from the recipe.

[0025] In some embodiments of the system, the processor is further operable to receive a request for a recipe to be added to the database, and update the database with the recipe.

[0026] In some embodiments of the system, the processor is further operable to provide information relating to a cooking competition, receive recipe entries for the competition, open the recipe entries to voting by users, determine the winning recipe entries based on votes from the users, and update the database with the winning recipes.

[0027] Other aspects and advantages of the invention will become apparent from the following detailed description, taken in conjunction with the accompanying drawings, illustrating by way of example the principles of the invention.

BRIEF DESCRIPTION OF DRAWINGS

[0028] The invention will be better understood with reference to the drawings, in which:

Figure 1 is a block diagram of a system for managing inventory according to an embodiment of the invention; and

Figure 2 is a flow diagram showing operations of the system in Figure 1 according to another embodiment of the invention.

DETAILED DESCRIPTION OF THE EMBODIMENTS

[0029] Throughout this document, unless otherwise indicated to the contrary, the terms “comprising”, “consisting of”, “having” and the like, are to be construed as non-exhaustive, or in other words, as meaning “including, but not limited to.”

[0030] Furthermore, throughout the specification, unless the context requires otherwise, the word “include” or variations such as “includes” or “including” will be

understood to imply the inclusion of a stated integer or group of integers but not the exclusion of any other integer or group of integers.

[0031] Unless defined otherwise, all technical and scientific terms used herein have the same meaning as is commonly understood by a skilled person to which the subject matter herein belongs.

[0032] As shown in the drawings for purposes of illustration, the invention may be embodied in a novel and user-friendly ingredient inventory system. Existing systems tend to be less useful. Referring to Figure 1, an inventory management system embodying the invention generally includes a server having a processor and a database. The processor is operable to receive an ingredient inventory list from a user, store and retrieve the ingredient inventory list in the database, retrieve one or more recipes that require at least a substantial portion of ingredients in the ingredient inventory list, and provide the user with the retrieved one or more recipes.

[0033] Specifically, Figure 1 shows a system 2 for managing ingredient inventory according to an embodiment of the invention. The system 2 includes a server 4, multiple user devices 6 and a barcode server 8. The users of the system 2 include a distributor who is the administrator of the server 4, subscribers, influencers, franchisers and supermarkets. The server 4 is data communicatively coupled, via a wide area network such as the Internet (not shown), to the user devices 6 and the barcode server 8. The server 4 may typically be built around a single centralized server 4 that handles all processing. Alternatively, the server 4 may also be a decentralized server. The system 2 is based upon a client-server architecture. The user devices 6 function as clients. The clients request content or service from the server 4. The clients therefore initiate communication sessions with the server 4, which await incoming requests. The clients and the server 4 exchange messages in a request-response messaging pattern. A client sends a request, and the server 4 returns a response. The language and rules of communication between the clients and the server 4 are defined in any suitable communication protocol known to those skilled in the art. To formalize the data exchange even further, the server 4 may implement an application programming interface (API) gateway 10 which is an abstraction layer for accessing a service on the server 4. Similarly, the server 4 functioning as a client in some instances accesses contents/services on the barcode server 8.

[0034] The server 4 includes at least one processor/processing unit 12 and a program storage device 14 readable by the processing unit 12 that tangibly embodies a program of instructions, executable by the processing unit 12 to provide services of the server 4. The program of instructions includes the application programming interface (API) gateway 10. The server 4 further includes a database 16. The user devices 6 may be any computing device, including but not limited to, a personal computer, a laptop, a notebook, a tablet, a smart phone, etc. These user devices 6 interact with the server 4 to access services provided by the server via the API gateway 10 of the server 4. The accessing of services involves transfer of data between the user devices 6 and the server 4.

[0035] Each user device 6 may include at least one processing unit/processor and a form of memory (both not shown). Various means are available on these user devices 6 for accessing services provided by the server 4. One of these means is via a mobile application (App for short, not shown) running on the user devices 6, especially smart phones. The App is a software application that is downloaded and installed on the smart phones 6. The App pulls content and data from the server 14 through the Internet. Other means via which the devices 6 may access services provided by the server 4 is a web portal or a mobile portal (both not shown) supported by the server 4. These portals are private locations on the Internet, accessible with unique URLs (web addresses) and unique usernames and passwords. A web portal is typically accessible via a web browser on a user device 6 to provide a page on the worldwide web or another access point for the user device 6 to engage with the server 4. However, the services may also be further accessible via websites and mobile websites (both not shown). Suitable graphical user interfaces (GUIs) are provided on the user devices 6 for each of these means to enable the users to access the services of the server 4.

[0036] The operation of the system 2 is next described at a high level from the perspective of the different users. More implementation details of the operation will be described later. An identity services module (not shown) in the server 4 manages an identity for each user that connects to the server 4. The identity services module stores or validates data about the users. This identity can be utilized to confirm and register a user, in certain applications of the system 2. To confirm identity, the identity

services module can be utilized to confirm the data about the user prior to allowing the user to access services provided by the server 4.

[0037] A distributor accesses the server 4 to enter information of ingredients the distributor carries into a products/commissions table (not shown) in the database 16. The information may include, amongst others, name, type, price, commission payable to an influencer if a subscriber purchases the ingredient through watching or viewing a recipe uploaded onto the server 4 by the influencer. An influencer can create recipes and upload them to the server 4 to be stored in a recipe store in the database 16.

[0038] A subscriber can upload ingredients that the subscriber has as an ingredient inventory list 18 for storing in an inventory list store (not shown) in the database 16. The subscriber may request and retrieve one or more recipes that require at least a substantial portion of the ingredients in his/her ingredient inventory list 18. Alternatively, the subscriber may retrieve one or more recipes that further meets one or more criteria of the subscriber. The one or more criteria includes, but is not limited to, cooking equipment to be used, cooking time required, and/or cooking experience of the user.

[0039] After viewing a recipe, the subscriber may like to purchase ingredients required for cooking with the recipe. The subscriber may request the server 4 to store the ingredients to be purchased in a shopping list 19 in a shopping list store in the database 16. The server 4 may provide the subscriber with a list of stores where the subscriber can purchase the ingredients in the shopping list 19 and allow the subscriber to select a store from the list. After the subscriber has selected a store, the server 4 may obtain location information in the selected store for each ingredient in the subscriber's shopping list 19, and provide the subscriber with the information. The location information may include an aisle number, or an aisle number and a shelf number, etc. The ingredients in the shopping list 19 may be presented to the subscriber sorted in either an ascending order or descending order according to the location information.

[0040] After purchasing the ingredients, the subscriber may further request the server 4 to remove purchased ingredients from the shopping list 19 and add them to the ingredient inventory list 18. As the purchases are managed by the server 4, information related thereto can be consolidated and provided to the franchisers and

the supermarkets. For example, the server 4 may provide information relating to ingredients purchased by users in a specific geographical location to the franchisers and supermarkets in that geographical location. The subscriber may further request the server 4 to reduce the ingredients in the ingredient inventory list 18 that have been used to cook from a particular recipe.

[0041] The distributor may organize cooking competitions and provide information relating to the competitions through the server 4. The server 4 may receive recipe entries for the competitions, open the recipe entries to voting by the subscribers, determine the winning recipe entries based on the number of votes from the subscribers, and update the recipe store with the winning recipes.

[0042] A method 20 of inventory management according to an embodiment of the invention is next described in detail with the aid of Figure 2. The method 2 starts in a FIRST ADD ITEM step 22, wherein the subscriber initiates adding of ingredients he has into his ingredient inventory list 18. The method 20 next proceeds to a FIRST SCAN BARCODE step 24, wherein the subscriber runs the App on his user device 6 to scan the barcodes of the ingredients he has. The user device 6 sends the barcode information, either one by one as they are scanned or altogether when all barcodes are scanned, along with a subscriber identity (ID) to the server 4. After the server 4 receives the barcode information, the server 4 obtains the ingredient information associated with the one or more barcodes from the barcode server 8 and provides the ingredient information to the subscriber. The ingredient information may include the type of the ingredient, the amount/volume/quantity of the ingredient, etc. The App displays the ingredient information in a list form on the user device 6. The method 20 next proceeds to an INDICATE USE step 26 to allow the subscriber to indicate if each ingredient has been used or is still unused. If the ingredient has been opened and used, the method 20 proceeds to INDICATE AMOUNT step 28 wherein the subscriber is able to indicate on his user device 6 the amount/volume/quantity of that ingredient that is left. If the subscriber indicates that ingredient is unopened in the INDICATE USE step 26, i.e. yet unused, the full amount/volume/quantity in the ingredient information provided by the server is retained accordingly. And once the subscriber has completely verified and updated the data in the inventory list on his user device 6, the method 20 proceeds to allow the subscriber to send the inventory list along with his subscriber ID to the server 4

via his user device 6. The server 4 upon receiving the inventory list stores/appends it to the subscriber's inventory list 18 in the ingredient inventory list store of the database 16 on the server 4 based on the subscriber ID. If scanning of a barcode fails in the FIRST SCAN BARCODE step 24 or if there is no barcode on an ingredient, the App allows the subscriber to enter the ingredient information manually into the list in a FIRST MANUAL ENTRY step 30 before the method 20 proceeds to the INDICATE USE step 26.

[0043] As mentioned earlier, the server 4 includes recipes uploaded by the influencers that are stored in the recipe store of the database 16. The method 20 includes a RECIPE RELATED step 40, wherein the server 4 retrieves the ingredient inventory list 18 of the subscriber and queries the recipe store to retrieve one or more recipes that require at least a substantial portion of the ingredients in the subscriber's ingredient inventory list 18. This step 40 may be carried out automatically when the user logs into the system 2 or it may be initiated by the subscriber through the App on his user device 6. The query of the recipes may minimally be based on the ingredients in the subscriber's ingredient inventory list 18. For example, the user may indicate that he is interested in recipes requiring ingredients for which, say at least 50%, 75%, 100% are already in his ingredient inventory list 18. The subscriber may also specify other search criteria for the query including, but not limited to, cooking equipment to be used, cooking time required, and cooking experience, viewing of only rated recipes, type of cuisine, occasion (Christmas, Easter, Birthdays, etc.) suitability, selected influencers, etc. These criteria may be stored as a default search criteria in either the user device 6 or the server 4 for use by the subscriber in a subsequent search.

[0044] After the recipe search is completed, the server 4 provides the user device 6 with the extracted recipes in the RECIPE RELATED step 40. For example, the server 4 may provide a picture, a name, a type of cuisine, percentage of ingredients available in his ingredient inventory list 18 for cooking the dish according to each recipe. The dishes may for example be displayed on the user device 6 in an order according to the percentage of ingredients the subscriber has for cooking the dishes. For example, a dish for which the subscriber has 100% of the ingredients required to cook the dish may appear first, followed by a second dish for which the user has 83% and a 3rd dish for which the user has 67%, etc.

[0045] In the RECIPE RELATED step 40, the subscriber may select a recipe from the displayed list on his user device 6. The user device 6 then sends an identifier (ID) of the selected recipe to the server 4. The server retrieves a cooking demonstration video associated with the recipe ID for the user to watch on the user device 6. Alternatively or additionally, the server 4 may retrieve and provide cooking instructions in text form to the subscriber. Where available, the server 4 may also retrieve and provide the subscriber with a chats/comments page related to the recipe. In such a case, the subscriber may also post his chats/comments on that page. The subscriber may also contact the influencer who created the recipe via email, mobile chats, or private chats through the server 4.

[0046] The subscriber may after viewing a cooking demonstration video decide to cook a dish according to the associated recipe. The method in the RECIPE RELATED step 40 allows the subscriber to click on a suitable icon displayed on his user device 6 to indicate that he wishes to purchase the ingredients associated with the recipe. This icon may for example be located adjacent the video frame so that it is easily locatable and identifiable. The user device 6 sends a purchase request to the server 4 including the subscriber ID, recipe ID and a number of portions he would like to cook. The server 4 uses the subscriber ID and the recipe ID to retrieve the subscriber's ingredient inventory list 18 and the ingredients required for the recipe respectively. The server 4 then determines, in an INVENTORY EXISTS? step 42, if the subscriber has in his ingredient inventory list 18 the ingredients required for cooking the stated number of portions according to the recipe. For any ingredient that the subscriber does not yet have, the server 4 adds the ingredients to the subscriber's shopping list 19 as identified by the subscriber ID. If however it is determined in the INVENTORY EXISTS? step 42 that an ingredient already exists, the server 4 will ask the subscriber in a CONTINUE TO ADD? step 44 if he would still like to add that ingredient into the shopping list 19. If the subscriber answers in the affirmative, the ingredient will get added to the shopping list 19. Optionally, the subscriber is given the opportunity to change the amount/volume/quantity of the ingredient before the subscriber instructs the server 4 to add the ingredient to his shopping list 19. In addition to being able to purchase ingredients associated with a recipe, the user may also add the recipe to a calendar for meal planning and menu

management by clicking a suitable icon when viewing the cooking demonstration video.

[0047] The user may also add ingredients to the shopping list 19 at any time. To do so, he runs the App on his user device 6 to initiate the adding of ingredients in a SECOND ADD ITEM step 47. The subscriber then proceeds to use the App to scan the barcode of an ingredient he is interested in purchasing in a SECOND SCAN BARCODE step 48. The user device 6 will obtain via the server 4 and the barcode server 8 the ingredient information associated with each barcode. The subscriber then indicates the amount/quantity/volume of the ingredient to purchase. The subscriber clicks an appropriate icon on the user device 6 to send the ingredient to the server 4 for the server 4 to add to his shopping list 19. If a barcode is not available for scanning or cannot be scanned successfully, the subscriber may enter the ingredient to be purchased manually into the App in a SECOND MANUAL ENTRY step 50.

[0048] When the subscriber is ready to make a purchase, the subscriber may click on an appropriate icon on the display of his user device 6 to request the server 4 to provide a recommendation of stores and/or supermarkets where the subscriber may go to purchase the items in his shopping list 19. The user device 6 will send an appropriate message to the server 4 including his subscriber ID and his location, for example, as automatically determined by a GPS sensor in his user device 6 or manually entered by the subscriber. The server 4 will retrieve the shopping list 19 of the subscriber based on the subscriber ID and use the Goggle's Places API to obtain a list of stores and/or supermarkets within a specified radius, e.g. 5 miles, of the subscriber's location. The server 4 sends the subscriber's shopping list 19 to the list of stores and/or supermarkets. The stores and/or supermarkets will each inform the server 4 which of the items in the shopping list is available or unavailable. If an item is available, the store and/or supermarket will also indicate the price and location information of the item in the store and/or supermarket. The location information of an item may include an aisle number and/or a shelf number. The server 4 may also compute two or more stores and/or supermarkets that are close to one another that carry all the items in the shopping list where the subscriber can go to purchase all the items at the lowest total price. The server 4 presents the store/supermarket information to the subscriber. The information may be presented to the subscriber

either in an ascending order or descending order according to the distance between the stores/supermarkets and his location. Alternatively, the information may be presented in an ascending order according to total cost of items, etc. The subscriber is then allowed to select a store/supermarket or a combination of two or more stores/supermarkets in a SELECT STORE step 52. At this point, the server 4 will provide the subscriber with his shopping list with location information of each item in the selected store/supermarket where his items may be found.

[0049] When the subscriber has purchased the items in his shopping list 19, he may click on an appreciate icon in his App on the user device 6, in a CHECKOUT step 56, to have the items purchased removed from his shopping list 19 and added to his ingredient inventory list 18. The subscriber is asked at this point, in an ADDITIONAL ITEMS BOUGHT? step 58, if he has purchased items that was not in his original shopping list 19. If the subscriber has purchase additional items, he may add them to his inventory list 18 list by initiating the request in a THIRD ADD ITEM step 59. The subscriber then proceeds to scan the barcodes of the additional items in a THIRD BARCODE SCAN step 60. If there is no barcode on an item or if the barcode cannot be successfully read, the subscriber may enter the information of the item manually for it to be added to the shopping list in a THIRD MANUAL ENTRY step 62. When there is no further purchased item to be added to the shopping list as indicated by the subscriber in the ADDITONAL ITEMS BOUGHT? step 58, the server 4 is requested to update the subscriber's shopping list by removing the purchased items from the shopping list 19 and to update the ingredient inventory list 18 by adding the purchased items to the list 18. In this manner, the subscriber's ingredient inventory list 18 is kept up-to-date in the server 4.

[0050] The server 4 may also keep track of purchases by the subscribers and consolidate and provide information related to purchases by subscribers in a particular geographical location to one or more stores and/or supermarkets in that geographical location. This is so that the stores and supermarkets will have a better idea of what items to stock. This will serve as a guide in stocking the most appropriate quantities for demand in their region, thereby reducing food wastage and lost revenues.

[0051] After purchasing the ingredients for cooking a selected recipe, the subscriber may proceed to cook according to the recipe. For example, the

subscriber may cook while watching the cooking demonstration video. After doing so, the subscriber may use the App again to indicate how many portions of the recipe has been cooked. The server 4 will then be requested to deduct the ingredients used from the subscriber's ingredient inventory list 18.

[0052] As described above, an influencer may add recipes to the recipe store in the system 2. Each submitted recipe may be subjected to assessment and pricing by the distributor before being launched for viewing. Each influencer may have his own channel in the system 2 wherein all recipes from him/her can be found. Each influencer can be followed and engaged. The influencer has access to the distributor's information in the products/commissions table. The commission information includes commissions that the influencer can earn if a subscriber purchases an item through watching his video, listening to an audio clip or reading a description associated with his recipe. The influencer may thus create recipes using ingredients earning him the highest commission rates.

[0053] To encourage more submission of recipes into the system 2, the distributor may organize online competitions for example once every quarter. In this regard, the server 4 may provide information relating to the cooking competitions to the subscribers. Competition information may include rules, opening and closing dates, who is eligible to participate, prizes, etc. The server 4 then starts receiving entries for the competitions and opens the recipe entries to voting by the subscribers. At the closing date, the server may then determine the winning recipes based on the number of subscriber votes. The recipe database may then be updated with only winning recipes, selected or all recipes entered for the competitions.

[0054] Advantageously, the inventory management system 2 is user friendly. Information of ingredients can be entered quite effortlessly. The system 2 can recommend recipes based on what is in a subscriber's ingredient inventory list. This ensures that ingredients in the subscriber's possession are constantly used and leads to less wastage. The one-click purchase feature associated with a recipe makes generating a shopping list very easy. Through the system 2, the subscribers are also able to directly engage the influencers who created the recipes. The system 2 also allows household menu management and meal planning where subscribers can decide in advance what to cook, order ingredients while utilizing existing inventory. The influencers may be everyday home cooks who become personalities

within the system 2 as the system 2 provides a channel for them to host their instructional/educational content. Furthermore, shopping guided by aisle and shelf numbers of items provided becomes hassle-free.

[0055] Although the present invention is described as implemented in the above described embodiments, it is not to be construed to be limited as such. For example, although it is described that scanning of a barcode is used for capturing information of ingredients, it is possible that other methods are used to enter ingredients information into the inventory list. Some of these methods may include the scanning of QR codes on the ingredients or reading RF IDs embedded in the ingredients or a combination thereof. Another example is to use an audio recording of the description of the ingredients. Yet another method is through photographs or pictures taken of the ingredients. In such a case, the server 4 will provide the necessary audio and image processing software required to interpret the audio recordings and photographs to add items to the ingredient inventory list 18.

[0056] As another example, the inventory management system has been described in the context of food ingredients. But a person skilled in the art will recognize that it can also be easily extended to non-food related items such as, but not limited to, household items such as toiletries, detergents, electrical goods, tools, etc.

[0057] As yet another example, it is described that the influencers create recipes on their own. However, the influencers may also get requests from subscribers to create specific recipes.

[0058] As yet a further example, it is described that subscribers do their own shopping in stores and supermarkets. It is possible that the subscriber's shopping list is sent by the server 4 to a store or supermarket for them to pack the items and deliver them to the subscriber or for the subscriber to pick up.

[0059] As another example, it is described in the embodiments that the subscriber initiates transfer of purchased items from his shopping list 19 into his ingredient inventory list 18. It is also possible for a store or supermarket to do that at their checkout. For example, at the checkout when the subscriber is paying for his purchases, the subscriber may produce a membership card to be scanned to obtain his subscriber ID. The store or supermarket will then send the list of purchased items

to the server 4 for the server 4 to update the subscriber's ingredient inventory list 18 based on the subscriber ID.

[0060] It should be further appreciated by the person skilled in the art that one or more of the above modifications or improvements, not being mutually exclusive, may be further combined to form yet further embodiments of the present invention.

CLAIMS

1. A method for managing inventory, the method comprising:
 - receiving an ingredient inventory list from a user;
 - storing and retrieving the ingredient inventory list;
 - retrieving at least one recipe that requires at least a substantial portion of ingredients in the ingredient inventory list; and
 - providing the user with the retrieved at least one recipe.
2. A method for managing inventory according to Claim 1, the method further comprising the user obtaining the ingredient inventory list by one of:
 - scanning barcodes of ingredients the user has; and
 - processing a photograph of ingredients the user has to generate the ingredient inventory list.
3. A method for managing inventory according to Claim 1, wherein retrieving at least one recipe comprises:
 - retrieving at least one recipe that requires at least a substantial portion of the ingredients in the ingredient inventory list and meets at least one criterion of the user.
4. A method for managing inventory according to Claim 3, wherein the at least one criterion comprises at least one of:
 - cooking equipment to be used;
 - cooking time required; and
 - cooking experience of the user.
5. A method for managing inventory according to Claim 1, further comprising:
 - receiving a request from the user to purchase ingredients associated with a recipe; and
 - storing the ingredients in a shopping list of the user.

6. A method for managing inventory according to Claim 1, further comprising:
 - providing the user with at least one store where the user can purchase the ingredients in the shopping list;
 - allowing the user to select a store from the at least one store;
 - obtaining an aisle number in the selected store for each ingredient in the shopping list; and
 - providing the user with aisle numbers of the ingredients in the shopping list sorted in one of an ascending order and descending order according to the aisle numbers.
7. A method for managing inventory according to Claim 5, further comprising:
 - receiving a request from the user to remove purchased ingredients from the shopping list; and
 - adding them to the ingredient inventory list.
8. A method for managing inventory according to Claim 7, further comprising consolidating and providing ingredients purchased by users in a geographical location to at least one store in the geographical location.
9. A method for managing inventory according to Claim 1, further comprising:
 - receiving a request from the user to reduce the ingredients in the ingredient inventory list that are used to cook from a recipe; and
 - updating the ingredient inventory list to reduce the ingredients used to cook from the recipe.
10. A method for managing inventory according to Claim 1, further comprising:
 - receiving a request for a recipe to be added to a database; and
 - updating the database with the recipe.
11. A method for managing inventory according to Claim 1, further comprising:
 - providing information relating to a cooking competition;
 - receiving recipe entries for the competition;
 - opening the recipe entries to voting by users;

determining the winning recipe entries based on votes from the users;
and
updating the database with the winning recipes.

12. An inventory management system comprising:
 - a server comprising a processor and a database;
 - wherein the processor is operable to
 - receive an ingredient inventory list from a user;
 - store and retrieve the ingredient inventory list in the database;
 - retrieve at least one recipe that requires at least a substantial portion of ingredients in the ingredient inventory list; and
 - provide the user with the retrieved at least one recipe.
13. An inventory management system according to Claim 12, where the processor is operable to retrieve at least one recipe that requires at least a substantial portion of the ingredients in the ingredient inventory list and meets at least one criterion of the user.
14. An inventory management system according to Claim 13, wherein the at least one criterion comprises at least one of:
 - cooking equipment to be used;
 - cooking time required; and
 - cooking experience of the user.
15. An inventory management system according to Claim 12, where the processor is further operable to:
 - receive a request from the user to purchase ingredients associated with a recipe; and
 - store the ingredients in a shopping list of the user in the database.
16. An inventory management system according to Claim 12, where the processor is further operable to:

provide the user with at least one store where he can purchase the ingredients in the shopping list;

allow the user to select a store from the at least one store;

obtain an aisle number in the selected store for each ingredient in the shopping list; and

provide the user with aisle numbers of the ingredients in the shopping list sorted in one of an ascending order and descending order according to the aisle numbers.

17. An inventory management system according to Claim 15, where the processor is further operable to:

receive a request from the user to remove purchased ingredients from the shopping list; and

add them to the ingredient inventory list.

18. An inventory management system according to Claim 17, where the processor is further operable to consolidate and provide ingredients purchased by users in a geographical location to at least one store in the geographical location.

19. An inventory management system according to Claim 12, wherein the processor is further operable to:

receive a request from the user to reduce the ingredients in the ingredient inventory list that are used to cook from a recipe; and

update the ingredient inventory list to reduce the ingredients used to cook from the recipe.

20. An inventory management system according to Claim 12, wherein the processor is further operable to:

receive a request for a recipe to be added to the database; and

update the database with the recipe.

21. An inventory management system according to Claim 12, wherein the processor is further operable to:

provide information relating to a cooking competition;
receive recipe entries for the competition;
open the recipe entries to voting by users;
determine the winning recipe entries based on votes from the users; and
update the database with the winning recipes.