DESCRIPTION

Title of the Invention: INFORMATION PROCESSING DEVICE, INFORMATION PROCESSING METHOD, PROGRAM, AND INFORMATION PROCESSING SYSTEM

TECHNICAL FIELD

[0001]

The present invention relates to an information processing device, an information processing method, a program, and an information processing system.

BACKGROUND ART

[0002]

In a company organization or the like, it is important to collect and analyze personal information such as schedules, attendance, and health conditions of employees and the like, and to share the information among the employees, in activating communication among the employees and efficiently performing business operations. Therefore, a technology has been proposed in which the position information of an employee or the like is checked from a terminal possessed by the employee or the like, and the schedule of the employee or the like is managed (for example, Patent Document 1). Further, there has been proposed a technology for appropriately ascertaining the state of mental and physical fatigue of an employee or the like from information about the health status

and the work status or the like of the employee or the like (for example, Patent Document 2).

[0003]

Patent Document 1: Japanese Unexamined Patent Application, Publication No.2001-312583

Patent Document 2: Japanese Unexamined Patent Application, Publication No.2003-256578

SUMMARY

[0004]

However, with only conventional technology including the technology disclosed in Patent Documents 1 and 2, each piece of information is often collected in an individual system, and a viewer who desires to view information about an employee or the like has to individually check the information in the individual system. Therefore, information is not sufficiently shared among users such as employees.

[0005]

In response to the above issue, it is an object of the present invention to enable a user to easily participate in or leave a place when the user participates in or leaves the place.

[0006]

To achieve the above object, an information processing device according to a first aspect of the present disclosure

includes:

a place management portion configured to manage, with respect to a place in which a plurality of users each operating a terminal can participate as participants, information of the participants of the place, such management being performed for each of a plurality of places so that check-in indicating a user's participation in a place and check-out indicating withdrawing of the user's participation in the place each are determined independently of another place;

a check-in portion configured to register a first user as a participant of the predetermined place when a first terminal operated by the first user issues a check-in instruction indicating participation in a predetermined place of the plurality of places;

a check-out portion configured to deregister the first user as the participant of the predetermined place when the first terminal of the first user registered as the participant of the predetermined place issues a check-out instruction indicating withdrawing of the participation in the predetermined place;

an information sharing portion configured to define, as shared information, at least part of information of the first user registered as the participant of the predetermined place among information managed by the place management portion, and to notify a second terminal operated by a second user registered as a participant of the predetermined place of the shared information, or execute control related to permission of

access to the shared information from the second terminal; and

a predetermined processing execution portion configured to execute predetermined processing related to the first user based on the shared information,

wherein each of the check-in portion, the check-out portion, the information sharing portion, and the predetermined processing execution portion executes processing for the first user when the predetermined place is a first place, the second user is a user 2-1, and the second terminal is a terminal 2-1, independently of a status of processing for the first user when the predetermined place is a second place, the second user is a user 2-2, and the second terminal is a terminal 2-2.

By automatically checking in to a place in which a user participates in his/her day's activities by an operation on his/her terminal or an

instruction from the terminal, information suitable for the place can be shared with other users. An information processing method and a program corresponding to the above information processing device according to the aspect of the present invention are also provided as an information processing method according to an aspect of the present invention and a program according to an aspect of the present invention.

[0006a]

An information processing method executable by an information processing device according to a second aspect of the present disclosure includes:

a place management step comprising managing, with respect to a place in which a plurality of users each operating a terminal can participate as participants, information of the participants of the place, such management being performed for each of a plurality of places so that check-in indicating a user's participation in a place and check-out indicating withdrawing of the user's participation in the place each are determined independently of another place;

a check-in step comprising registering a first user as a participant of the predetermined place, when a first terminal operated by the first user issues a check-in instruction indicating participation in a predetermined place of the plurality of places;

a check-out step comprising deregistering the first user as the participant of the predetermined place when the first

terminal of the first user registered as the participant of the predetermined place issues a check-out instruction indicating withdrawing of the participation in the predetermined place;

an information sharing step comprising defining, as shared information, at least part of information of the first user registered as the participant of the predetermined place among information managed by processing of the place management step, and notifying a second terminal operated by a second user registered as a participant of the predetermined place of the shared information, or executing control related to permission of access to the shared information from the second terminal; and a predetermined processing execution step comprising executing predetermined processing related to the first user based on the shared information,

wherein the information processing device executes, in each of the check-in step, the check-out step, the information sharing step, and the predetermined processing execution step, processing for the first user when the predetermined place is a first place, the second user is a user 2-1, and the second terminal is a terminal 2-1, independently of a status of processing for the first user when the predetermined place is a second place, the second user is a user 2-2, and the second terminal is a terminal 2-2.

[0006b]

A program for causing a computer to execute control processing according to a third aspect of the present

disclosure includes:

a place management step comprising managing, with respect to a place in which a plurality of users each operating a terminal can participate as participants, information of the participants of the place, such management being performed for each of a plurality of places so that check-in indicating a user's participation in a place and check-out indicating withdrawing of the user's participation in the place each are determined independently of another place;

a check-in step comprising registering a first user as a participant of the predetermined place, when a first terminal operated by the first user issues a check-in instruction indicating participation in a predetermined place of the plurality of places;

a check-out step comprising deregistering the first user as the participant of the predetermined place when the first terminal of the first user registered as the participant of the predetermined place issues a check-out instruction indicating withdrawing of the participation in the place;

an information sharing step comprising defining, as shared information, at least part of information of the first user registered as the participant of the predetermined place among information managed by processing of the place management step, and notifying a second terminal operated by a second user registered as a participant of the predetermined place of the shared information, or executing control related to permission of access to the shared information from the second

terminal; and a predetermined processing execution step comprising executing predetermined processing related to the first user based on the shared information,

wherein the computer executes, in each of the check-in step, the check-out step, the information sharing step, and the predetermined processing execution step, processing for the first user when the predetermined place is a first place, the second user is a user 2-1, and the second terminal is a terminal 2-1, independently of a status of processing for the first user when the predetermined place is a second place, the second user is a user 2-2, and the second terminal is a terminal 2-2.

[0007]

An information processing system according to a fourth aspect of the present disclosure includes:

a plurality of terminals respectively operated by a plurality of users, and a server.

The server includes:

a place management portion configured to manage, with respect to a place in which the plurality of users can participate as participants, information of the participants of the place, such management being performed for each of a plurality of places so that check-in indicating a user's participation in a place and check-out indicating withdrawing of the user's participation in the place each are determined independently of another place;

a check-in portion configured to register,

when a first terminal operated by a first user issues a check-in instruction indicating participation in a predetermined place of the plurality of places, the first user as a participant of the predetermined place;

a check-out portion configured to deregister the first user as the participant of the predetermined place when the first terminal of the first user registered as the participant of the predetermined place issues a check-out instruction indicating withdrawing of the participation in the place; and

an information sharing portion configured to define, as shared information, at least part of information of the first user registered as the participant of the predetermined place among information managed by the place management portion, and to notify a second terminal operated by a second user registered as a participant of the predetermined place of the shared information, or execute control related to permission of access to the shared information from the second terminal; and

wherein each of the check-in portion, the check-out portion, the information sharing portion, and the predetermined processing execution portion executes processing for the first user when the predetermined place is a first place, the second user is a user 2-1, and the second terminal is a terminal 2-1, independently of a status of processing for the first user when the predetermined place is a second place, the second user is a user 2-2, and the second terminal is a terminal 2-2.

Each of the plurality of terminals of the plurality of users includes:

a check-in notification portion configured to receive a predetermined first trigger as an instruction to check in to the predetermined place and notify the server of such;

a check-out notification portion configured to receive a predetermined second trigger as an instruction to check out from the predetermined place and notify the server of such; and

a shared information acquisition portion configured to

acquire, when shared information related to another user registered as a participant of the predetermined place is notified from the server, or when access to the shared information is requested to the server and the server permits the access, the shared information related to the other user. When a user participates in or leaves a place, by assisting the check-in or check-out of the place in this manner, part of the user's information is shared or unshared with other users, so that the user can easily participate in or leave the place.

[0008]

According to the present disclosure, a user can easily participate in or leave a place when the user participates in or leaves the place.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009]

FIG. 1 shows functions provided by an information processing system including a server according to an embodiment of an information processing device of the present invention;

FIG. 2 is a block diagram showing the configuration of the information processing system including the server according to the embodiment of the information processing device of the present invention;

FIG. 3 is a block diagram showing an example of the hardware configuration of the server in the information processing system shown in FIG. 2;

FIG. 4 is a functional block diagram showing an example of the functional configuration of the server of the information processing system of FIG. 2;

FIG. 5 is a flowchart showing the operation of the server of the information processing system according to the embodiment;

FIG. 6 shows an example of a scene of arriving at an office among scenes occurring in one day’s activities of a user;

FIG. 7 shows an example of a scene of having an online meeting

in the office among scenes occurring in one day's activities of the user;

FIG. 8 shows an example of a scene of visiting a client among scenes occurring in one day's activities of the user and having an offline meeting in a conference room;

FIG. 9 shows an example of a scene of having lunch in a company cafeteria among scenes occurring in one day's activities of the user;

FIG. 10 shows an example of a scene of having an offline meeting with other members who are near the office among scenes occurring in one day's activities of the user;

FIG. 11 shows an example of a scene of moving to a client's location in Marunouchi among scenes occurring in one day's activities of the user;

FIG. 12 shows an example of a scene of arriving at the client's location among scenes occurring in one day's activities of the user;

FIG. 13 shows an example of a scene of exercising at a gym on the way home from work among scenes occurring in one day's activities of the user; and

FIG. 14 shows an example of a scene of going home and preparing for tomorrow among scenes occurring in one day's activities of the user.

PREFERRED MODE FOR CARRYING OUT THE INVENTION

[0010]

Hereinafter, an embodiment of the present invention will

be described with reference to the drawings. First, with reference to FIG. 1, functions provided by an information processing system including an information processing device of the present invention will be described. FIG. 1 shows the functions provided by the information processing system including the information processing device of the present invention.

[0011]

As shown in FIG. 1, these functions are implemented by, for example, functions (broken line portion) of application programs (hereinafter referred to as “apps”) installed in user terminals 2-1 and 2-2 respectively managed by users U1 and U2. These functions may be implemented as functions of a server accessed by a web browser of each of the user terminals 2-1 and 2-2.

[0012]

The program includes a group of functions (gate opening/closing, spot unlocking /locking, reception check, schedule, productivity visualization, task management, rating, spot environment improvement, notification, recommendation, payment, reservation, etc.) that operate with check-in or check-out to/from a place as a trigger. Details of each function will be described later in the description of the functional configuration of the server in FIG. 4.

[0013]

In the present embodiment, for example, the user U1 checks in to a unit place of a company Sa from the outside. The user

U2 has already checked in to the company Sa and is staying in a conference room Sa1. The concept of the place includes not only physical spaces such as the company Sa and the conference room Sa1, but also virtual spaces (a meeting room of a web conference, and the like). The place includes not only one continuous space but also a group of a plurality of spaces spaced apart from each other.

[0014]

When the user U1 arrives at a place of the company Sa, the app of the user terminal 2-1 managed by the user U1 checks in to the place of the company Sa. Thus, the user U1 is registered in a system and an app of the company Sa as a participant participating in the place of the company Sa. After registering the user U1 as a participant, the system and app of the company Sa operates a function that can be provided to a participant in the place.

[0015]

For example, the gate opening/closing function opens the gate at the entrance of the company Sa, and the user U1’s arrival time is recorded in the attendance system of the company Sa in conjunction with the opening of the gate and check-in. Further, the notification function notifies the user U2 in the same team that the user U1 has been registered as a participant, and the participation information of the user U1 is shared with the user terminal 2-2 of the user U2. Further, the schedule function enables the user U1 to participate in the same conference as the user U2 set in advance without

checking the schedule.

[0016]

After the conference, when the user U1 exits from the conference room Sa1 and further exits from the company Sa, the user terminal 2-1 checks out from the place of the company Sa. As a result, the user U1's leaving time is recorded in the attendance system of the company Sa, and the user U1 is deregistered as a participant of the place of the company Sa.

[0017]

After that, when the user U1 arrives at a gym Sb, the app of the user terminal 2-1 of the user U1 checks in to the place of the gym Sb. Thereby, the start time of the user U1 is recorded in the reception system of the gym Sb, and the user U1 is registered in the reception system and the app as a participant participating in the place of the gym Sb.

[0018]

After that, when the user U1 has finished training in the gym Sb and exits from the gym Sb, the user terminal 2-1 checks out from the place of the gym Sb. As a result, the usage end time is recorded in the reception system of the gym Sb, and the registration of the user U1 as a participant of the place of the gym Sb is withdrawn.

[0019]

In this way, with the function of each of the apps of the user terminals 2-1 and 2-2, by using check-in to the place as a trigger and linking with "people", "objects", and "things", the users U1 and U2 can easily perform activities.

[0020]

Next, with reference to FIG. 2, an information processing system including a server according to the embodiment of the information processing device of the present invention will be described. FIG. 2 is a block diagram showing the configuration of the information processing system including the server according to the embodiment of the information processing device of the present invention.

[0021]

The information processing system shown in FIG. 2 includes a server 1 managed by a service provider M, user terminals 2-1 to 2-n respectively operated by users U1 to Un (n is any integer value greater than or equal to 1), a gate 3 disposed in a company, a gym, or the like, and a code reader 4 disposed in a company cafeteria or the like.

[0022]

The server 1 and the user terminals 2-1 to 2-n are connected to each other via a network N such as the Internet. The gate 3 is connected to a gate management system (not shown), but when the server 1 has a gate management function, the gate 3 is connected to the network N. The code reader 4 is connected to a payment device or the like for payment of a meal or the like in a company cafeteria, but when the server 1 has a payment function, the code reader 4 is connected to the network N. Hereinafter, when it is not necessary to distinguish each of the users U1 to Un from each other, these users are collectively referred to as a “user U”. When it is

not necessary to distinguish each of the user terminals 2-1 to 2-n from each other, these user terminals are collectively referred to as a “user terminal 2”.

[0023]

The server 1 manages the operation of the user terminal 2. The server 1 executes various processing to provide the above-described functions to the user terminal 2.

[0024]

The user terminal 2 includes, for example, a smartphone, a tablet, or the like, and is operated by the user U. The user terminal 2 has a function of displaying a two-dimensional code for payment to be read by the code reader 4. The user terminal 2 has a function of proximity communication for opening and closing the gate 3. In the proximity communication, identification information for uniquely identifying the user U is transmitted. In the following description, unless stated otherwise, the expression “the user U operates the user terminal 2” means that the user U starts an app installed in the user terminal 2 and performs various operations. The “instruction from the user terminal 2” includes the operation of the user terminal 2 by the user U and the automatic transmission of a signal from the user terminal 2 (automatic proximity communication from the user terminal 2 at the time of passing the gate, etc.).

[0025]

The gate 3 is a security gate disposed at the entrance /exit of the company, and has a function of reading the

employee ID, the pass permission information, or the like stored in an IC card type employee card or the app of the user terminal 2 by contact or non-contact communication, and a mechanism for opening/closing a passage according to the result of comparison between the read employee ID or pass permission information. The code reader 4 reads a two-dimensional code displayed on the screen of the user terminal 2. The two-dimensional code is used, for example, for check-in and payment for a meal.

[0026]

FIG. 3 is a block diagram showing an example of the hardware configuration of the server 1 in the information processing system shown in FIG. 2.

[0027]

The server 1 includes a central processing unit (CPU) 11, a read only memory (ROM) 12, a random access memory (RAM) 13, a bus 14, an input/output interface 15, an output unit 16, an input unit 17, a storage unit 18, a communication unit 19, and a drive 20.

[0028]

The CPU 11 executes various types of processing according to a program stored on the ROM 12 or a program loaded to the RAM 13 from the storage unit 18. On the RAM 13, data and the like required for the CPU 11 to perform various types of processing are also stored as appropriate.

[0029]

The CPU 11, the ROM 12, and the RAM 13 are connected to

each other via the bus 14. The input/output interface 15 is connected to the bus 14. The output unit 16, the input unit 17, the storage unit 18, the communication unit 19, and the drive 20 are connected to the input/output interface 15.

[0030]

The output unit 16 is constituted by a display, such as a liquid crystal display, and can display various images. The input unit 17 is constituted by various hardware buttons and the like. An operator instructs or operates the input unit 17 to input various items of information.

[0031]

The storage unit 18 is constituted by, for example, a dynamic random access memory (DRAM), and stores various data. The communication unit 19 controls communication with other devices (the user terminals 2). The communication is performed via the network N including the Internet.

[0032]

The drive 20 is provided as necessary. The drive 20 is equipped with a removable medium 31 constituted by, for example, a magnetic disk, an optical disk, a magnetic optical disk, or a semiconductor memory, as appropriate. A program read from the removable medium 31 by the drive 20 is installed in the storage unit 18 as necessary. Like the storage unit 18, the removable medium 31 can also store various data stored in the storage unit 18.

[0033]

Although not shown, since the user terminal 2, which is

included in the information processing system of FIG. 2, also has the same hardware configuration as the server 1 of FIG. 2, the description thereof is omitted. However, when the user terminal 2 is constituted by a smartphone or a tablet, the user terminal 2 includes a touch panel that functions as an output unit 16 and an input unit 17.

[0034]

The above-described various hardware of the server 1 of FIG. 2 and various software work together, thereby enabling the server 1 to execute various processing described later. As a result, the service provider M can provide various services described later to the user U.

[0035]

With reference to FIG. 4, the functional configuration of the server of the information processing system of FIG. 2 will be described. FIG. 4 is a functional block diagram showing an example of the functional configuration of the server of the information processing system of FIG. 2.

[0036]

As shown in FIG. 4, a user DB 401, a place management DB 402, a schedule DB 403, an attendance management DB 404, and a payment DB 405 are provided in one area of the storage unit 18 of the server 1.

[0037]

The user DB 401 stores information on the users U1 to Un as employees of the company. Specifically, the user DB 401 stores names, departments, contact information such as

extensions and email addresses, information on deductions, etc., in association with the employee IDs of the users U1 to Un. The place management DB 402 stores information on conference rooms available in and outside the company (e.g., the location of the conference room, the number of persons to be accommodated, the reservation information (information that indicates who made the reservation for what purpose and from what time to what time on what date), and the use history of the conference room). The place management DB 402 also stores information on web conferences (e.g., the reservation information of the web conference, conference ID, password, and information on participants).

[0038]

The schedule DB 403 stores daily schedules of the users U1 to Un.

[0039]

The attendance management DB 404 stores attendance information of each of the users U1 to Un. As the attendance information, the time of arrival at and leaving the company are stored. The attendance information is recorded (stored) when each of the users U1 to Un passes through the gate 3 disposed at the entrance and exit of the company, if the employee ID of the user DB 401 and the user ID obtained from the gate 3 are compared and match. In addition, in the case of remote work at home, login time, logout time, and the like of each of the user terminals 2-1 to 2-n are stored in the attendance management DB 404. In the case of a satellite

office or a related facility, the entry time and exit time of each facility are stored in the attendance management DB 404.

[0040]

The payment DB 405 stores payment information in which each of the users U1 to Un has paid with a two-dimensional code by each of the user terminals 2-1 to 2-n.

[0041]

As shown in FIG. 4, in the CPU 11 of the server 1, when the check-in or check-out processing is executed, a place management unit 101, a check-in unit 102, a check-out unit 103, an information sharing unit 104, an action execution unit 105, and a context information acquisition unit 106 function.

[0042]

The place management unit 101 manages information on participants (the users U1 and U2 in the example of FIG. 1) of a place, with regard to the conference room Sa1 (see FIG. 1) as a place in which one or more of the users U1 to Un each operating the user terminal 2 can participate as participants, a web conference in the conference room Sa1, or the like. Specifically, the place management unit 101 manages places such as the conference room Sa1 and the web conference using the place management DB 402.

[0043]

When the user terminal 2-1 operated by the user U1 issues a check-in instruction indicating participation in a conference, the check-in unit 102 registers the user U1 as a participant of the conference. Specifically, for example, when

receiving a check-in instruction from the user terminal 2-1, the check-in unit 102 determines whether the user U1 is a participant of the conference managed in the place management DB 402, and if the user U1 is a participant of the conference, the check-in unit 102 registers the user U1 as a participant of the conference in the place management DB 402.

[0044]

When the user terminal 2-1 of the user U1 registered as a participant of the conference, issues a check-out instruction indicating withdrawing of participation in the conference, the check-out unit 103 deregisters the user U1 as a participant of the conference. Specifically, for example, when a check-out instruction is received from the user terminal 2-1, the check-out unit 103 deregisters the user U1 as a participant of the conference from the place management DB 402.

[0045]

The information sharing unit 104 defines at least part of the information (e.g., information set as sharable among schedule of the user U1) of the user U1 registered as a participant of the conference as shared information among the information managed by the place management unit 101, and notifies the user terminal 2-2 operated by the user U2 registered as a participant of the conference of the shared information or
executes control related to permission of access to the shared information from the user terminal 2-2.

[0046]

The action execution unit 105 executes predetermined processing related to the user U1 based on the shared information that is at least part of the information of the user U1 notified by the information sharing unit 104. The predetermined processing includes, for example, notification of participation in a conference on the day by check-in of the user U1, and reservation of a new conference set in advance in a schedule table into an in-house system. Specifically, when the user U1 is registered as a participant of the conference by the check-in unit 102, the information sharing unit 104 defines at least part of the information of the user U1 stored in the schedule DB 403 (e.g., information set as sharable to other companies among today's schedule of the user U1 in the schedule DB 403) as share information, and notifies the user terminal 2-2 of the user U2, who is a participant of the conference, of the shared information, or executes control of giving permission to access the shared information from the user terminal 2-2 and provides the shared information of the user U1 to the user U2. In addition, when the user U1 is registered as a participant of the conference by the check-in unit 102, the action execution unit 105 may define at least part of the information of the user U1 managed in the user DB 401 (e.g., information according to the authority (employee or outsider) of another participant (if the other participant is an employee of the same company, the department, name, contact information, etc.)) as shared information, and may notify the user terminal 2-2 of the user U2, who is a participant of the

same conference, of the shared information, or may execute control of giving permission to access the shared information from the user terminal 2-2 and may provide the shared information of the user U1 to the user U2.

[0047]

When the user terminal 2-1 operated by the user U1 issues a check-in instruction indicating participation in the conference, the context information acquisition unit 106 acquires context information of the user U1 (e.g., information indicating a condition such as a physical condition of the user U1) from the user terminal 2-1 or another device. Examples of another device include cameras, microphones, pedometers, sphygmomanometers, and body composition meters. The “context information” refers to information indicating at least one of an internal state or an external state of the user U1. That is, one piece of context information is information indicating at least one state of “internal state” or “external state” of the user U1. Here, the “internal state” refers to the internal state of the user U1, which is indicated by various information obtained by making the user U1 the object of sensing. Examples of the information indicating the “internal state” include information indicating physical characteristics of the user U1, such as height, weight, body temperature, pulse, precent body fat, body type, fingerprint, voiceprint, and age obtained through measurements or a survey by measuring devices at the time of training in the gym Sb or the like. Information such as physical condition

and emotion of the user U1 and action history of the user U1 are also included in the information indicating the internal state of the user U1. The “external state” refers to a state outside the user U1 indicated by various information obtained by making the environment around the user U1 the object of sensing. Examples of the information indicating the “external state” include information on a history and a forecast of meteorological elements (weather, temperature, humidity, etc.), and a room temperature at a location in which the user U1 existed in the past, presently exists, or may exist in the future. The information indicating the external state also includes information indicating the position of the spatial or temporal arrangement of the user U1, and information indicating a predetermined state distributed in at least one direction of the spatial direction around or the temporal direction of the user U1. In the present specification, the term “time” is not limited to the original concept of “range”, but includes “time” and “timing” as a concept indicating “at that time”. Therefore, the “data indicating the position of the temporal arrangement” includes, for example, a time at a predetermined past timing, and a current time.

[0048]

The action execution unit 105 includes a conference processing unit 111, a notification processing unit 112, a mobile linking unit 113, an attendance management unit 114, a payment processing execution unit 115, a welfare processing execution unit 116, and a history information presentation

unit 117. Based on the shared information, the conference processing unit 111 executes, as predetermined processing, processing of generating information that helps the users U1 and U2 act in the same conference during the same period of time. The information that helps the users U1 and U2 to act in the same conference during the same period of time is, for example, reservation information of a web conference including the user U2, and reservation information of a conference room in the company.

[0049]

Based on the shared information, the notification processing unit 112 executes, as predetermined processing, processing of notifying the user terminal 2-2 of, for example, another place, satellite office, recommended by the user U1 (such as inviting a member who is in a satellite office to a predetermined conference location). The other place recommended by the user U1 is, for example, a predetermined conference location for inviting a member who is in a satellite office (for example, a rented conference room or the like, which is located between the work location of the user and the satellite office).

[0050]

Based on the shared information and information (movement route, rain forecast, etc.) exchanged by linking with predetermined mobile services (route information service, weather forecast service, etc.), the mobile linking unit 113 executes predetermined processing (such as presenting

information to make the user think about buying an umbrella on the way).

[0051]

The attendance management unit 114 executes, as predetermined processing, processing related to the attendance management of the user U1 based on the shared information and information (employee ID or the like) exchanged by linking with a work management system in the company when the place is, for example, a conference in the company in which the user U1 works. The processing related to the attendance management of the user U1 is, for example, processing of recording an arrival time, a going out time, a leaving time, and the like into the work management system.

[0052]

When the place is, for example, a place to eat and drink (company cafeteria or the like) among places in which the user U1 works, the payment processing execution unit 115 executes, as predetermined processing, payment processing related to eating and drinking of the user U1 in the company cafeteria based on the shared information and information (employee ID or the like) exchanged by linking with an eating and drinking management system and the work management system. The payment processing related to eating and drinking of the user U1 is, for example, processing of payment for lunch using a two-dimensional code, or processing of payment by payroll deduction linked to an employee ID.

[0053]

When the place is, for example, a facility provided by the welfare of the workplace of the user U1, for example, the gym Sb (see FIG. 1), the welfare processing execution unit 116 executes, as predetermined processing, processing related to at least one of the welfare or the health promotion of the user U1 based on the shared information and information (gym usage record or the like) exchanged by linking with a welfare service management system (computer reception system of the gym facility or the like).

[0054]

The history information presentation unit 117 executes, as predetermined processing, processing of generating history information for managing the history of the user U1 based on the shared information and the context information, and presenting the history information to predetermined persons. The predetermined persons are, for example, a workplace supervisor, labor relations personnel, company's health nurse, trainer, and the like. Specifically, historical information is presented to the terminal of each of these persons.

[0055]

In addition, each of the user terminals 2-1 and 2-n includes a check-in notification unit, a check-out notification unit, and a shared information acquisition unit. The check-in notification unit receives a predetermined first trigger (e.g., terminal operation of entering a web conference by a user) as an instruction to check in to the conference, and notifies the server 1 of such. The check-out notification

unit receives a predetermined second trigger (e.g., a terminal operation of exiting from the web conference) as an instruction to check out from the conference or the like, and notifies the server 1 of such. When shared information about another user registered as a participant of the conference is notified from the server 1, or when a request of access for the shared information is made to the server 1, and a permission of access for the request of access is returned from the server 1, the shared information acquisition unit acquires the shared information of the other user from the server 1.

[0056]

Next, with reference to FIG. 5, the operation of the server of the information processing system according to the embodiment will be described. FIG. 5 is a flowchart showing the operation of the server of the information processing system according to the embodiment. In step S1, the place management unit 101 manages, with respect to the conference room Sa1 (see FIG. 1) as a place in which at least one of the users U1 to Un each operating the user terminal 2 can participate, a web conference in the conference room Sa1, and the like, information on participants (the users U1 and U2 in the example of FIG. 1) of the place.

[0057]

In step S2, when the user terminal 2-1 operated by the user U1 issues a check-in instruction indicating participation in the conference, the check-in unit 102 registers the user U1

as a participant of the conference.

[0058]

In step S3, when the user terminal 2-1 of the user U1 registered as a participant of the conference issues a check-out instruction indicating withdrawing of the participation in the conference, the check-out unit 103 deregisters the user U1 as a participant of the conference.

[0059]

In step S4, the information sharing unit 104 defines, as shared information, at least part of the information of the user U1 registered as a participant of the conference among information managed by the place management unit 11, and notifies the user terminal 2-2 operated by the user U2 registered as a participant of the conference of the shared information, or executes control related to permission of access to the shared information from the user terminal 2-2.

[0060]

Thus, when the user U1 participates in the conference, the check-in unit 102 automatically registers the user U1 as a participant of the conference, and the user U1 can easily participate in the conference as a participant of the conference. Further, when the user U1 leaves the conference, since the check-out unit 103 automatically deregisters the user U1 as a participant of the conference, the user U1 can leave the conference without performing a deregistration operation or the like as a participant of the conference. Further, when the user U1 is registered as a participant of

the conference, at least part of the information of the user U1 is shared with or notified to the other user U2 as shared information, so that the user U1 can smoothly participate in the conference of the user U2 by the sharing of the information of the user U1.

[0061]

Hereinafter, with reference to FIGS. 6 to 14, one day's activities of the user U1 will be described. First, an example of a character (attribute information) of the user U will be described. The name of the user U is Taro O×, family structure is single, gender is male, age is 34, residence is Ebisu, occupation is group sales for a major general trading company, annual income is XXX ten thousand yen, and his main responsibilities are to develop new clients and propose products and services to clients. His hobbies are sports, gym, eating out, and traveling. On his days off, he spends his time sweating through sports and going out to eat delicious food. His favorite magazines include YY magazine. He builds a career and is looking for new ways to work as a step up. In addition, he tries to increase the productivity of the current work so as to make time to enrich his side job and lifestyle.

[0062]

FIG. 6 shows an example of a scene of arriving at an office among scenes occurring in one day's activities of the user. In the example shown in FIG. 6, the user U arrives at the office at 9:00 a.m. When the user U arrives at the gate at the entrance /exit of the office around 9:00 a.m., the app of

the user terminal 2 determines that the user has come to the office based on the schedule DB 403 and GPS position information, activates the four functions of gate opening/closing, check-in, reservation, and attendance management to display the respective icons and a two-dimensional code indicating an employee ID on the screen.

[0063]

The user U can use the app screen as an employee ID card, and by holding the screen up to the gate, he can smartly check in and complete the recording of his attendance at the same time. In addition, when the user U operates the icon for reservation on the screen to display the screen for reservation of a spot, a conference room for a conference of today's schedule can also be reserved.

[0064]

According to this example, by linking the gate opening/closing with the check-in, the user U can pass through the entering gate smartly. Further, the user U can easily reserve a spot such as a conference room while going to his work location after passing through the gate.

[0065]

FIG. 7 shows an example of a scene of having an online meeting in the office among scenes occurring in one day's activities of the user. In the example of FIG. 7, the user U has an online meeting in the office at 10:00 a.m.

[0066]

In this case, when the user U arrives in front of the

reserved conference room around 10 a.m., the app of the user terminal 2 determines that the user has the conference based on the schedule DB 403, and activates the five functions of spot unlocking/locking, check-in, meeting, rating, and feedback, and displays a meeting screen on which the respective icons are arranged.

[0067]

Here, since the reserved conference room is unlocked by the app, and the check-in processing is executed, the user U is registered in the app as a participant of the conference. The user U can enter the conference room and start the meeting, set in advance in the schedule, on the meeting screen. Further, by operating the icon for rating on the screen of the app after the meeting, the meeting can be easily rated.

[0068]

According to this example, by linking the unlocking and check-in of the conference room, the user U can enter the conference room and start the meeting smartly. In addition, after the meeting, the meeting can be easily rated from the screen of the app.

[0069]

FIG. 8 shows an example of a scene of visiting a client among scenes occurring in one day’s activities of the user and having an offline meeting in a conference room. In the example of FIG. 8, the user U visits the client at 11:00 a.m. and has the online meeting in the conference room.

[0070]

In this case, when the user U displays the app screen of the user terminal 2 in front of the conference room of the client around 11:00 a.m., the app of the user terminal 2 determines that the user U has the conference at the client's premises based on the schedule DB 403 and GPS position information, and activates the four functions of spot unlocking/locking, check-in, spot environment improvement, and rating to display a check-in screen on which the respective icons are arranged.

[0071]

Here, since the unlocking of the conference room and the check-in processing are executed by holding the check-in screen up to the code reader arranged at the entrance of the conference room, the user U is registered in the app as a participant of the conference and is permitted to enter the conference room.

[0072]

When the user U enters the conference room, and the CO_2 concentration in the conference room increases and exceeds a preset reference value, the spot environment improvement function allows a notification screen indicating that the degree of risk of corona virus has increased to be displayed. In addition, a notification screen is displayed when the conference lasts longer than a certain amount of time. Further, after the meeting, by operating the icon for rating on the screen of the app, the meeting can be easily rated.

[0073]

According to this example, by linking the reading of the participant information by the code reader with the unlocking and check-in of the conference room, the user U can enter the conference room and smartly start the offline meeting. Further, since the notification screen indicating that the degree of risk of corona virus has increased is displayed when the CO_2 concentration in the conference room exceeds the reference value, the offline meeting can be held safely and securely. Further, after the meeting, the meeting can be easily rated from the screen of the app.

[0074]

FIG. 9 shows an example of a scene of having lunch at a company cafeteria among scenes occurring in one day's activities of the user. In the example shown in FIG. 9, the user U has lunch at the company cafeteria at 13:00.

[0075]

In this case, when the user U goes to the entrance of the company cafeteria around 13:00, and displays the app screen of the user terminal 2, the app of the user terminal 2 determines that the user U has lunch at the company cafeteria based on the schedule DB 403 and GPS position information, and activates the three functions of check-in, payment, and rating to display a guide screen of the company cafeteria on which the respective icons are arranged.

[0076]

Here, when the user U operates the check-in icon on the

guide screen, a check-in screen on which a two-dimensional code is displayed is displayed, so that the check-in processing is executed by holding the check-in screen up to the code reader arranged at the entrance of the company cafeteria. Thus, the user U is registered in the app as a user of the lunch.

[0077]

When the user U enters the company cafeteria, orders a desired lunch, and operates the payment icon on the app screen, a payment screen displaying a bar code for payment different from that at the time of check-in is displayed. Then, by causing a bar code reader of a payment device (a cash register) of the company cafeteria to read the bar code on the payment screen, payment for lunch can be performed through the app.

[0078]

According to this example, it is possible to complete the process from the check-in of a spot such as the company cafeteria to the payment for lunch with a single app. After the launch, the spot can be easily rated from the app screen.

[0079]

FIG. 10 shows an example of a scene of having an offline meeting with other members who are near the office among scenes occurring in one day's activities of the user. In the example of FIG. 10, the user U has the offline meeting with the nearby members at the office at 15:00.

[0080]

In this case, when the user U displays the app screen of the user terminal 2 at the work location of the office around 15:00, the app of the user terminal 2 determines that the user U has the meeting with other members based on the schedule DB 403, and activates the four functions of member status, member map search, communication, and reservation to display a member status screen on which the respective icons are arranged.

[0081]

Here, when the current position of each member is checked on the status screen and then the icon for member map search on the status screen is operated, the screen is switched to a map screen, and the locations of the members are displayed on the map, so that the members who are in nearby satellite offices can be checked. Subsequently, the user U operates the icon for communication to contact each member, selects a candidate place of a temporary offline meeting, and reserves the conference room for the offline meeting from the icon for reservation, thereby inviting the members and holding the temporary offline meeting.

[0082]

According to this example, the member status, real-time check-in display allows the user U to check who and when and where the other members are. In addition, by using the member map search function from the current position, it is possible to check how far away each member is and select a location at which it is easy for members to gather. Further, the communication function allows the user U to contact each

member and decide on a candidate location based on the availability of each member.

[0083]

FIG. 11 shows an example of a scene of moving to a client’s location in Marunouchi among scenes occurring in one day’s activities of the user. In the example of FIG. 11, the user U moves to the client’s location in Marunouchi at 16:00.

[0084]

In this case, to arrive at the client’s location in Marunouchi around 16:00, when the user U displays the app screen of the user terminal 2 at the work location of the office 30 minutes before, the app of the user terminal 2 determines that it is time for the user U to leave the office based on the schedule DB 403 and GPS position information, and activates the three functions of weather information, check-in history, and spot note to display a past schedule history screen on which the respective icons are arranged.

[0085]

Here, since weather information is displayed on the past schedule history screen, it is possible to determine from the probability of precipitation or the like that the weather at the client’s location is likely to be rainy. In addition, by checking the previous visit history of the check-in history function on the past schedule history screen and the past notes of the spot note function, the user U can be fully prepared and decide that it is better to carry or buy an umbrella and take a train.

[0086]

According to this example, it is possible to check the weather of a destination spot to which the user U is about to travel. Further, by checking the previous visit history with the check-in history function and checking the past notes with the spot note function, the user U can fully make preparations for the destination spot.

[0087]

FIG. 12 shows an example of a scene of arriving at the client's location among scenes occurring in one day's activities of the user. In the example of FIG. 12, the user U arrives at the client's location in Marunouchi at 17:00.

[0088]

In this case, the user U arrives at the Marunouchi Building of the client's location in Marunouchi around 17:00. Here, when the user U displays the app screen of the user terminal 2, the app of the user terminal 2 determines that the user U has arrived at the Marunouchi Building based on the schedule DB 403 and GPS position information, and activates the five functions of gate opening/closing, check-in, notification, reception check, and smart billing to display an entry screen on which the respective icons are arranged.

[0089]

Here, since the two-dimensional code for entering the building is displayed on the entry screen, the two-dimensional code on the entry screen is held up to the code reader arranged on the gate for entering the Marunouchi Building,

whereby the opening of the gate and the check-in processing are executed. Further, by the user U operating the icon for notification on the entry screen, a floor map of the Marunouchi Building and a caution screen with cautions at the time of visiting the building are displayed, so that the user U can check the cautions and the floor of and a route to the client's office (e.g., locations of uncrowded elevators). This allows the user U to reach the client's office without getting lost. Further, the reception check at the reception of the client's office can be completed by operating the icon for reception check.

[0090]

According to this example, it is possible to smoothly perform an entry procedure by linking the gate opening/closing with the check-in at the client's location. Further, with the display of the floor map of the building and the notification function, it is possible to find a gate and an elevator that are not crowded and to visit the floor of the client's location. Further, the reception check at the reception of the client's location can be easily completed by operating the icon for reception check.

[0091]

FIG. 13 shows an example of a scene of exercising at a gym on the way home from work among scenes occurring in one day's activities of the user. In the example of FIG. 13, the user U exercises at the gym after work at 19:00.

[0092]

In this case, when the user U displays the app screen of the user terminal 2 on the way home from work slightly before 19:00, the app of the user terminal 2 determines that the user U is on his way home from work based on the schedule DB 403 and GPS position information, and activates the six functions of recommendation, check-in, payment, health care, feedback, and rating to display an app screen on which the respective icons are arranged. Here, when the user U operates the icon for recommendation on the app screen of the user terminal 2, the app of the user terminal 2 recommends a gym in which the user U can stop by on the way home from work based on GPS position information. The user U follows the recommendation to go to the gym. When the user U arrives at the entrance of the gym, the check-in screen for the gym is displayed.

[0093]

Here, when the user U operates the icon for check-in on the check-in screen, since the two-dimensional code for entry is displayed on the check-in screen, the two-dimensional code on the check-in screen is held up to the code reader arranged on the gate for entering the gym, whereby the opening of the gate and the check-in processing are executed.

[0094]

Then, the user U enters the gym and works out with prepared training equipment or the like, the measurement values measured by each piece of equipment are acquired by the app, and a screen with a visualized health score is displayed, allowing the user U to check his health status on the screen

of his user terminal 2.

[0095]

In the system for the gym, health scores are converted into points and accumulated as health points in the app. Since the health points can be used for payment of the usage fee of the gym, by operating the payment icon on the app screen of the user terminal 2, the usage fee of the gym can be paid with the health points accumulated in the app, and thus the user can return home without using cash or the like.

[0096]

According to this example, the recommendation function allows the user to go to the gym, check in, work out, and then pay with health points (personal points) accumulated in the app. In addition, the health status can be visualized (represented by numerical values or graphs) based on measurement values acquired from training equipment during training, and feedback can be received. Further, by operating the icon for rating on the app screen after training, the spot (gym) can be easily rated.

[0097]

FIG. 14 shows an example of a scene of going home and preparing for tomorrow among scenes occurring in one day's activities of the user. In the example of FIG. 14, the user U goes home at 21:00 and prepares for tomorrow.

[0098]

In this case, when the user U goes home around 21:00 and displays the app screen of the user terminal 2, the app of the

user terminal 2 determines that the user U has returned home based on the schedule DB 403 and GPS position information, and activates the four functions of schedule, workplan, task management, and productivity visualization to display an app screen on which the respective icons are arranged.

[0099]

Here, when the user U operates the icon for schedule on the app screen of the user terminal 2, the app of the user terminal 2 displays a screen showing today's schedule of the user U based on the schedule in the schedule DB 403. The user U can view the screen of the schedule and manage the tasks completed today.

[0100]

After that, when tomorrow's schedule is checked and a new schedule is additionally registered, the icon for work plan is operated to display the screen for schedule registration, and then a new schedule can be registered by inputting a title, a time, a guest, a conference, a location, a description, a work content, and the like and operating the save button. After the schedule registration, the operation of this day is ended.

[0101]

According to this example, the schedule function allows the user to check the schedule completed in a day and register it. A new schedule can be additionally registered in the schedule by the workplan function. Further, registered tasks can be managed by the task management function.

[0102]

Although an embodiment of the present invention has been described above, the present invention is not limited to the above embodiment, and modifications, improvements, and the like are included in the present invention to the extent that the object of the present invention can be achieved.

[0103]

In the above-described embodiment, the place has been described using examples of a real company partitioned by walls, a conference room, a gym, a satellite office, a web conference as a virtual place, and the like, but the present invention is not limited thereto. The place is only required to be a place in which one or more users each operating the terminal can participate as participants. In the above-described embodiment, as the predetermined processing related to the user U1 executed by the action execution unit 105, the conference processing, the notification processing of inviting members to a predetermined conference location, the linking with mobile services, the attendance management, the payment of eating and drinking, the processing related to at least one of welfare or health promotion, etc. are exemplified, but the present invention is not limited thereto. It is only required that the action execution unit is a predetermined processing execution portion that executes predetermined processing related to a first user. In the above embodiment, the shared information of the user U1 is, for example, the information that is set as sharable in the user U1’s schedule. Alternatively, the user U1’s name, department, contact

information, or the like may be disclosed depending on the party with whom the information is shared. That is, it is only required that the shared information is at least part of the information of the first user.

[0104]

For example, the series of processing described above can be executed by hardware or software. In other words, the functional configuration of FIG. 4 is merely an example, and the present invention is not limited thereto. That is, it is only required that the system has a function capable of executing the above-described series of processing as a whole, and the functional blocks to realize this function are not limited to the example of FIG. 4. The locations of the functional blocks and databases are not limited to those shown in FIG. 4. For example, the functional blocks and databases of the server may be transferred to the user terminal or the like. Conversely, the functional blocks and databases of the user terminal may be transferred to the server or the like. Further, one functional block and a database may be configured by hardware alone, software alone, or a combination thereof.

[0105]

When the series of processing is executed by software, a program constituting the software is installed in a computer or the like from a network or a recording medium. The computer may be a computer incorporated in dedicated hardware. The computer may be a computer capable of performing various functions by installing various programs, such as a server, a

general-purpose smartphone, or a personal computer.

[0106]

The recording medium having such a program recorded thereon may be not only a removable medium (not shown) distributed separately from a device body in order to provide the program to a user or the like, but also a recording medium provided to a user or the like as a pre-incorporated component of the device body.

[0107]

In the present specification, steps of describing a program to be recorded on a recording medium include not only processing steps performed in time sequence and in an order, but also processing steps executed in parallel or individually, but not in time sequence. In addition, in the present specification, the term “system” refers to an overall device including a plurality of devices, a plurality of portions, and the like.

[0108]

In other words, the information processing device to which the present invention is applied is only required to have the following configuration, and can be implemented in various embodiments.

[0109]

That is, an information processing device (e.g., the server 1 shown in FIG. 4) to which the present invention is applied includes:

a place management portion (e.g., the place management unit

101 shown in FIG. 4) that manages, with respect to a place (e.g., conference) in which one or more users (e.g., the users U1 to Un shown in FIG. 4) each operating a terminal can participate as participants, information of the participants of the place;

a check-in portion (e.g., the check-in unit 102 shown in FIG. 4) that registers a first user (e.g., the user U1 shown in FIG. 4) as one of the participants of the place (e.g., conference) when a first terminal (e.g., the user terminal 2-1 shown in FIG. 4) operated by the first user (e.g., the user U1 shown in FIG. 4) issues a check-in instruction indicating participation in the place (e.g., conference);

a check-out portion (e.g., the check-out unit 103 shown in FIG. 4) that deregisters the first user (e.g., the user U1 shown in FIG. 4) as the participant of the place (e.g., conference) when the first terminal (e.g., the user terminal 2-1 shown in FIG. 4) of the first user (e.g., the user U1 shown in FIG. 4) registered as the participant of the place (e.g., conference) issues a check-out instruction indicating withdrawing of the participation in the place;

an information sharing portion (e.g., the information sharing unit 104 shown in FIG. 4) that defines, as shared information, at least part (e.g., the information set as sharable in the user U1’s schedule) of information of the first user (e.g., the user U1 shown in FIG. 4) registered as the participant of the place (e.g., conference) among the information managed by the place management portion (e.g., the place management unit

101 shown in FIG. 4), and notifies a second terminal (e.g., the user terminal 2-2 shown in FIG. 4) operated by a second user (e.g., the user U2 shown in FIG. 4) registered as one of the participants of the place (e.g., conference) of the shared information, or executes control related to permission of access to the shared information from the second terminal (e.g., the user terminal 2-2 shown in FIG. 4); and

a predetermined processing execution portion (e.g., the action execution unit 105 shown in FIG. 4) that executes predetermined processing (e.g., notification of participation in a conference on the day by check-in of the user U1 or reservation of a new conference set in advance in a schedule table into an in-house system) related to the first user (e.g., the user U1 shown in FIG. 4) based on the shared information.

By assisting the check-in or check-out of the place (e.g., conference) when the user participates in or leaves the place in this manner, part of the user’s information is shared or unshared with other users, so that the user can easily participate in or leave the place (e.g., conference). More specifically, while the user U1, such as an employee, engages in one day’s activities (company activities, personal activities before and after such activities, etc.), the user U1 automatically checks in to a place in which the user U1 participates (such as an internal or external meeting) by operating his/her own user terminal 2-1 or by issuing an instruction from the user terminal 2-1, whereby information

suitable for the place (registration of today's schedule, notification of conference participation to other participants, etc.) can be shared with other users. That is, by creating a state of being capable of sharing information on who performs what task and where through a specific check-in, and notifying or sharing the information group to/with other employees or participants, it is possible to improve the efficiency of operations and activate communication in a company organization or the like, and further optimize their lives.

[0110]

The predetermined processing execution portion (e.g., the action execution unit 105 shown in FIG. 4) includes a place execution processing portion (e.g., the conference processing unit 111 shown in FIG. 4) that executes, as the predetermined processing, processing of generating information (reservation information of a Web conference including the user U2, reservation information of a conference room in a company, or the like) that helps the first user U1 (e.g., the user U1 shown in FIG. 4) and the second user U2 (e.g., the user U2 shown in FIG. 4) to act in the same place (e.g., conference) during the same period of time, based on the shared information.

In this way, by creating a state of being capable of sharing information on who performs what task where and when through a specific check-in operation, and notifying or sharing this group of information to/with other employees, it is possible

to promote a behavioral change in which a team works in the same space during the same period of time, and to enhance a sense of team solidarity.

[0111]

The predetermined processing execution portion (e.g., the action execution unit 105 shown in FIG. 4) includes a notification processing portion (e.g., the notification processing unit 112 shown in FIG. 4) that executes, as the predetermined processing, processing of notifying the second terminal (e.g., the user terminal 2-2 shown in FIG. 4) of another place (e.g., inviting members working at satellite offices to a predetermined conference location) recommended by the first user (e.g., the user U1 shown in FIG. 4), based on the shared information.

In this way, by creating a state of being capable of sharing information on who performs what task where and when through a specific check-in operation, and notifying or sharing this group of information to/with other employees, the team can share a work location recommended by an employee.

[0112]

The predetermined processing execution portion (e.g., the action execution unit 105 shown in FIG. 4) includes a mobile service linking portion (e.g., the mobile linking unit 113 shown in FIG. 4) that executes the predetermined processing (such as presenting information to make the user think about buying an umbrella on the way) based on the shared information and information (movement route, rain forecast, or

the like) exchanged by linking with a predetermined mobile service (route information service, weather forecast service, or the like).

Thus, by creating a state of being capable of sharing information on who performs what task where and when through a specific check-in operation, and linking this group of information with various Mobility as a Service (MaaS), it is possible to contribute to the efficiency of movement of employees (workers) and the improvement of productivity.

[0113]

The place is a place (e.g., conference) in which the first user (e.g., the user U1 shown in FIG. 4) works. The predetermined processing execution portion (e.g., the action execution unit 105 shown in FIG. 4) includes an attendance management portion (e.g., the attendance management unit 114 shown in FIG. 4) that executes, as the predetermined processing, processing (processing of recording an arrival time, a going out time, a leaving time, and the like into a work management system) related to the attendance management of the first user (e.g., the user U1 shown in FIG. 4) based on the shared information and information (employee ID or the like) exchanged by linking with the work management system.

Thus, by creating a state of being capable of sharing information on who performs what task where and when through a specific check-in operation, and linking this group of information with an attendance management system, it is

possible to achieve attendance management (such as management of attending and leaving the company, and entering and exiting a gym or the like) including work location data.

[0114]

The place is a place to eat and drink (company cafeteria or the like) among places in which the first user (e.g., the user U1 shown in FIG. 4) works. The predetermined processing execution portion (e.g., the action execution unit 105 shown in FIG. 4) includes

a payment processing execution portion (e.g., the payment processing execution unit 115 shown in FIG. 4) that executes, as the predetermined processing, payment processing (payment for lunch using a two-dimensional code, payment by payroll deduction linked to an employee ID, or the like) related to eating and drinking of the first user (e.g., the user U1 shown in FIG. 4) at the place to eat and drink (company cafeteria or the like), based on the shared information and information (employee ID or the like) exchanged by linking with an eating and drinking management system and the work management system. In this way, by creating a state of being capable of sharing information on who performs what task where and when through a specific check-in operation, and linking this group of information with the eating and drinking management system and the attendance management system, it can be used for employee welfare and health promotion.

[0115]

The place is a place provided by welfare of a workplace of

the first user (e.g., the user U1 shown in FIG. 4). The predetermined processing execution portion (e.g., the action execution unit 105 shown in FIG. 4) includes
a welfare processing execution portion (the welfare processing execution unit 116 shown in FIG. 4) that executes, as the predetermined processing, processing related to at least one of welfare or health promotion of the first user (e.g., the user U1 shown in FIG. 4) based on the shared information and information (gym usage record or the like) exchanged by linking with a welfare service management system (computer reception system of a gym facility or the like).
In this way, by creating a state of being capable of sharing information on who performs what task where and when through a specific check-in operation, and linking this group of information with the welfare service management system such as a gym facility, the specific check-in can be used for employee welfare and health promotion.

[0116]

The information processing device further includes a context information acquisition portion (e.g., the context information acquisition unit 106 shown in FIG. 4) that acquires context information (e.g., information indicating conditions such as physical conditions of the user U1) of the first user (e.g., the user U1 shown in FIG. 4) from the first terminal (e.g., the user terminal 2-1 shown in FIG. 4) or another device (camera, sphygmomanometer, body composition meter, or the like) when the first terminal (e.g., the user

terminal 2-1 shown in FIG. 4) operated by the first user (e.g., the user U1 shown in FIG. 4) issues the check-in instruction indicating the participation in the place. The predetermined processing execution portion (e.g., the action execution unit 105 shown in FIG. 4) includes a history information presentation portion (e.g., the history information presentation unit 117 shown in FIG. 4) that executes, as the predetermined processing, processing of generating history information for managing history of the first user (e.g., the user U1 shown in FIG. 4) based on the shared information and the context information and presenting the history information to a predetermined person (e.g., the terminal of a workplace supervisor, labor relations personnel, company's health nurse, trainer, or the like).

In this way, by creating a state of being capable of sharing information on who performs what task where and when through a specific check-in operation, and having an employee enter a condition such as a physical condition at the time of check-in in addition to the group of information, the supervisor or labor relations personnel can provide timely care to the employee even in a remote work environment.

[0117]

An information processing method to which the present invention is applied is as follows. An information processing method executable by an information processing device (e.g., the server 1 shown in FIG. 4) includes:

a place management step including managing, with respect to a

place in which one or more users each operating a terminal can participate as participants, information of the participants of the place (e.g., conference);

a check-in step including registering a first user (e.g., the user U1 shown in FIG. 4) as one of the participants of the place (e.g., conference) when a first terminal (e.g., the user terminal 2-1 shown in FIG. 4) operated by the first user (e.g., the user U1 shown in FIG. 4) issues a check-in instruction indicating participation in the place (e.g., conference);

a check-out step including deregistering the first user (e.g., the user U1 shown in FIG. 4) as the participant of the place (e.g., conference) when the first terminal (e.g., the user terminal 2-1 shown in FIG. 4) of the first user (e.g., the user U1 shown in FIG. 4) registered as the participant of the place (e.g., conference) issues a check-out instruction indicating withdrawing of the participation in the place (e.g., conference); and

an information sharing step including defining, as shared information, at least part of information of the first user (e.g., the user U1 shown in FIG. 4) registered as the participant of the place (e.g., conference) among the information managed by processing of the place management step, and notifying a second terminal (e.g., the user terminal 2-2 shown in FIG. 4) operated by a second user (e.g., the user U2 shown in FIG. 4) registered as one of the participants of the place (e.g., conference) of the shared information, or

executing control related to permission of access to the shared information from the second terminal (e.g., the user terminal 2-2 shown in FIG. 4).

While a user such as an employee or the like engages in one day's activities (company activities, personal activities before and after such activities, etc.), the user checks in to a place in which the user participates (such as an internal or external check point), whereby information suitable for the place (registration of today's schedule, notification of conference participation to other participants, etc.) can be shared. That is, by creating a state of being capable of sharing information on who performs what task and where through a specific check-in, and notifying or sharing the group of information to/with other employees or participants, it is possible to improve the efficiency of operations and activate communication in a company organization or the like, and to further optimize their lives.

[0118]

A program to which the present invention is applied causes a computer (e.g., the CPU 11 shown in FIG. 4) to execute control processing including:

a place management step including managing, with respect to a place in which one or more users each operating a terminal can participate as participants, information of the participants of the place (e.g., conference);

a check-in step including registering a first user (e.g., the user U1 shown in FIG. 4) as one of the participants of the

place (e.g., conference) when a first terminal (e.g., the user terminal 2-1 shown in FIG. 4) operated by the first user (e.g., the user U1 shown in FIG. 4) issues a check-in instruction indicating participation in the place (e.g., conference);

a check-out step including deregistering the first user (e.g., the user U1 shown in FIG. 4) as the participant of the place (e.g., conference) when the first terminal (e.g., the user terminal 2-1 shown in FIG. 4) of the first user (e.g., the user U1 shown in FIG. 4) registered as the participant of the place (e.g., conference) issues a check-out instruction indicating withdrawing of the participation in the place (e.g., conference); and

an information sharing step including defining, as shared information, at least part of information of the first user (e.g., the user U1 shown in FIG. 4) registered as the participant of the place (e.g., conference) among the information managed by processing of the place management step, and notifying a second terminal (e.g., the user terminal 2-2 shown in FIG. 4) operated by a second user (e.g., the user U2 shown in FIG. 4) registered as one of the participants of the place (e.g., conference) of the shared information, or executing control related to permission of access to the shared information from the second terminal (e.g., the user terminal 2-2 shown in FIG. 4).

This program has the same effects as the above information processing method.

[0119]

An information processing system to which the present invention is applied includes
a plurality of terminals (e.g., the users U1 to Un shown in FIG. 4) respectively operated by a plurality of users, and a server (e.g., the server 1 shown in FIG. 4). The server (e.g., the server 1 shown in FIG. 4) includes:
a place management portion (e.g., the place management unit 101 shown in FIG. 4) that manages, with respect to
a place (e.g., conference) in which one or more of the plurality of users (e.g., the users U1 to Un shown in FIG. 4) can participate as participants, information of
the participants of the place (e.g., conference);
a check-in portion (e.g., the check-in unit 102 shown in FIG. 4) that registers a first user (e.g., the user U1 shown in FIG. 4) as one of the participants of the place (e.g., conference) when a first terminal (e.g., the user terminal 2-1 shown in FIG. 4) operated by the first user (e.g., the user U1 shown in FIG. 4) issues a check-in instruction indicating participation in the place (e.g., conference);
a check-out portion (e.g., the check-out unit 103 shown in FIG. 4) that deregisters the first user (e.g., the user U1 shown in FIG. 4) as the participant of the place (e.g., conference) when the first terminal (e.g., the user terminal 2-1 shown in FIG. 4) of the first user (e.g., the user U1 shown in FIG. 4) registered as the participant of the place (e.g., conference) issues a check-out instruction indicating

withdrawing of the participation in the place; and
an information sharing portion (e.g., the information sharing unit 104 shown in FIG. 4) that defines, as shared information, at least part of information of the first user (e.g., the user U1 shown in FIG. 4) registered as the participant of the place (e.g., conference) among the information managed by the place management portion, and notifies a second terminal (e.g., the user terminal 2-2 shown in FIG. 4) operated by a second user (e.g., the user U2 shown in FIG. 4) registered as one of the participants of the place (e.g., conference) of the shared information, or executes control related to permission of access to the shared information from the second terminal (e.g., the user terminal 2-2 shown in FIG. 4).
Each of the plurality of terminals (e.g., the user terminals 2-1, 2-n, etc. shown in FIG. 4) of the plurality of users (e.g., the users U1 to Un shown in FIG. 4) includes:
a check-in notification portion (e.g., the check-in notification unit 121 shown in FIG. 4) that receives a predetermined first trigger as an instruction to check in to the place (e.g., conference) and notifies the server (e.g., the server 1 shown in FIG. 4) of such;
a check-out notification portion (e.g., the check-out notification unit 122 shown in FIG. 4) that receives a predetermined second trigger as an instruction to check out from the place (e.g., conference) and notifies the server (e.g., the server 1 shown in FIG. 4) of such; and
a shared information acquisition portion (e.g., the shared

information acquisition unit 123 shown in FIG. 4) that acquires, when shared information related to another user registered as one of the participants of the place (e.g., conference) is notified from the server, or when access to the shared information is requested to the server and the server permits the access, the shared information related to the other user.

That is, by creating a state of being capable of sharing information on who performs what task and where through a specific check-in, sharing the group of information with other employees or participants, and notifying the server of check-in or check-out of participants, it is possible to acquire shared information related to other participants each operating a terminal under the management of the server 1 at that timing, to simultaneously acquire the information of each member of the same team working during the same period of time, and to ascertain the information of each member at that timing.

EXPLANATION OF REFERENCE NUMERALS

[0120]

1 server, 2 user terminal, 3 gate, 4 code reader, 11 CPU, 18 storage unit, 19 communication unit, 101 place management unit, 102 check-in unit, 103 check-out unit, 104 information sharing unit, 105 action execution unit, 106 context information acquisition unit, 111 conference processing unit, 112 notification processing unit, 113 mobile linking unit, 114

attendance management unit, 115 payment processing execution unit, 116 welfare processing execution unit, 117 history information presentation unit

CLAIMS

1. An information processing device, comprising:

a place management portion configured to manage, with respect to a place in which a plurality of users each operating a terminal can participate as participants, information of the participants of the place, such management being performed for each of a plurality of places so that check-in indicating a user's participation in a place and check-out indicating withdrawing of the user's participation in the place each are determined independently of another place;

a check-in portion configured to register a first user as a participant of the predetermined place, when a first terminal operated by the first user issues a check-in instruction indicating participation in a predetermined place of the plurality of places;

a check-out portion configured to deregister the first user as the participant of the predetermined place when the first terminal of the first user registered as the participant of the predetermined place issues a check-out instruction indicating withdrawing of the participation in the place;

an information sharing portion configured to define, as shared information, at least part of information of the first user registered as the participant of the predetermined place among information managed by the place management portion, and to notify a second terminal operated by a second user

registered as a participant of the predetermined place of the shared information, or execute control related to permission of access to the shared information from the second terminal; and

a predetermined processing execution portion configured to execute predetermined processing related to the first user based on the shared information,

wherein each of the check-in portion, the check-out portion, the information sharing portion, and the predetermined processing execution portion executes processing for the first user when the predetermined place is a first place, the second user is a user 2-1, and the second terminal is a terminal 2-1, independently of a status of processing for the first user when the predetermined place is a second place, the second user is a user 2-2, and the second terminal is a terminal 2-2.

2. The information processing device according to claim 1, wherein

the predetermined processing execution portion comprises a place processing execution portion configured to execute, as the predetermined processing, processing of generating information that helps the first and second users to act in the same predetermined place during the same period of time, based on the shared information.

3. The information processing device according to claim 1,

wherein

the predetermined processing execution portion comprises a notification processing portion configured to execute, as the predetermined processing, processing of notifying the second terminal of another place recommended by the first user, based on the shared information.

4. The information processing device according to claim 1, wherein

the predetermined processing execution portion comprises a mobile service linking portion configured to execute the predetermined processing based on the shared information and information exchanged by linking with a predetermined mobile service.

5. The information processing device according to claim 1,

wherein the predetermined place is a place in which the first user works, and

wherein the predetermined processing execution portion comprises an attendance management portion configured to execute, as the predetermined processing, processing related to attendance management of the first user based on the shared information and information exchanged by linking with a work management system.

6. The information processing device according to claim 1,

wherein the predetermined place is a place to eat and

drink among places in which the first user works, and

wherein the predetermined processing execution portion comprises a payment processing execution portion configured to execute, as the predetermined processing, payment processing related to eating and drinking of the first user at the place to eat and drink, based on the shared information and information exchanged by linking with a work management system.

7. The information processing device according to claim 1,

wherein the predetermined place is a place provided by welfare of a workplace of the first user, and

wherein the predetermined processing execution portion comprises

a welfare processing execution portion configured to execute, as the predetermined processing, processing related to at least one of welfare or health promotion of the first user based on the shared information and information exchanged by linking with a welfare service management system.

8. The information processing device according to claim 1,

further comprising a context information acquisition portion configured to acquire context information of the first user from the first terminal or another device when the first terminal operated by the first user issues the check-in instruction indicating the participation in the predetermined place,

wherein the predetermined processing execution portion comprises a history information presentation portion configured to execute, as the predetermined processing, processing of generating history information for managing history of the first user based on the shared information and the context information and presenting the history information to a predetermined person.

9. An information processing method executable by an information processing device, the method comprising:

a place management step comprising managing, with respect to a place in which a plurality of users each operating a terminal can participate as participants, information of the participants of the place, such management being performed for each of a plurality of places so that check-in indicating a user's participation in a place and check-out indicating withdrawing of the user's participation in the place each are determined independently of another place;

a check-in step comprising registering a first user as a participant of the predetermined place when a first terminal operated by the first user issues a check-in instruction indicating participation in a predetermined place of the plurality of places;

a check-out step comprising deregistering the first user as the participant of the predetermined place when the first terminal of the first user registered as the participant of the predetermined place issues a check-out instruction

indicating withdrawing of the participation in the place;

an information sharing step comprising defining, as shared information, at least part of information of the first user registered as the participant of the predetermined place among information managed by processing of the place management step, and notifying a second terminal operated by a second user registered as a participant of the predetermined place of the shared information, or executing control related to permission of access to the shared information from the second terminal; and a predetermined processing execution step comprising executing predetermined processing related to the first user based on the shared information,

wherein the information processing device executes, in each of the check-in step, the check-out step, the information sharing step, and the predetermined processing execution step, processing for the first user when the predetermined place is a first place, the second user is a user 2-1, and the second terminal is a terminal 2-1, independently of a status of processing for the first user when the predetermined place is a second place, the second user is a user 2-2, and the second terminal is a terminal 2-2.

10. A program for causing a computer to execute control processing comprising:

a place management step comprising managing, with respect to a place in which a plurality of users each operating a terminal can participate as participants, information of the

participants of the place, such management being performed for each of a plurality of places so that check-in indicating a user's participation in a place and check-out indicating withdrawing of the user's participation in the place each are determined independently of another place;

a check-in step comprising registering a first user as a participant of the predetermined place when a first terminal operated by the first user issues a check-in instruction indicating participation in a predetermined place of the plurality of places;

a check-out step comprising deregistering the first user as the participant of the predetermined place when the first terminal of the first user registered as the participant of the predetermined place issues a check-out instruction indicating withdrawing of the participation in the place;

an information sharing step comprising defining, as shared information, at least part of information of the first user registered as the participant of the predetermined place among information managed by processing of the place management step, and notifying a second terminal operated by a second user registered as a participant of the predetermined place of the shared information, or executing control related to permission of access to the shared information from the second terminal; and a predetermined processing execution step comprising executing predetermined processing related to the first user based on the shared information,

wherein the computer executes, in each of the check-in

step, the check-out step, the information sharing step, and the predetermined processing execution step, processing for the first user when the predetermined place is a first place, the second user is a user 2-1, and the second terminal is a terminal 2-1, independently of a status of processing for the first user when the predetermined place is a second place, the second user is a user 2-2, and the second terminal is a terminal 2-2.

11. An information processing system comprising a plurality of terminals respectively operated by a plurality of users, and a server,

the server comprising:

a place management portion configured to manage, with respect to a place in which the plurality of users can participate as participants, information of the participants of the place, such management being performed for each of a plurality of places so that check-in indicating a user's participation in a place and check-out indicating withdrawing of the user's participation in the place each are determined independently of another place;

a check-in portion configured to register, when a first terminal operated by the first user issues a check-in instruction indicating participation in a predetermined place of the plurality of places, the first user as a participant of the predetermined place;

a check-out portion configured to deregister the first

user as the participant of the predetermined place when the first terminal of the first user registered as the participant of the predetermined place issues a check-out instruction indicating withdrawing of the participation in the predetermined place; and

an information sharing portion configured to define, as shared information, at least part of information of the first user registered as the participant of the predetermined place among information managed by the place management portion, and to notify a second terminal operated by a second user registered as a participant of the predetermined place of the shared information, or execute control related to permission of access to the shared information from the second terminal; and

wherein each of the check-in portion, the check-out portion, the information sharing portion, and the predetermined processing execution portion executes processing for the first user when the predetermined place is a first place, the second user is a user 2-1, and the second terminal is a terminal 2-1, independently of a status of processing for the first user when the predetermined place is a second place, the second user is a user 2-2, and the second terminal is a terminal 2-2,

each of the plurality of terminals of the plurality of users comprising:

a check-in notification portion configured to receive a predetermined first trigger as an instruction to check in to

the predetermined place and notify the server of such;

a check-out notification portion configured to receive a predetermined second trigger as an instruction to check out from the predetermined place and notify the server of such; and

a shared information acquisition portion configured to acquire, when shared information related to another user registered as a participant of the predetermined place is notified from the server, or when access to the shared information is requested to the server and the server permits the access, the shared information related to the other user.