

METHOD AND DEVICE FOR IMPLEMENTING SERVICE OPERATIONS BASED ON IMAGES

TECHNICAL FIELD

[0001] The present application relates to the field of Internet technologies, and in
5 particular, to a method and device for implementing service operations based on
images.

BACKGROUND

[0002] With fast development of Internet technologies, the number of users of
social apps (Application, application) is sharply increasing, and the number of users
10 chat with relatives and friends, share feelings, share images, share statuses, and so on
by using the social apps is also increasing.

SUMMARY

[0003] In view of this, the present application provides a method and device for
implementing service operations based on images.

15 [0004] The present application is implemented by using the following technical
solutions.

[0005] A method for implementing service operations based on images is
provided, where the method is applied to a server, and the method includes: after an
image sharing request sent by a first user is received, storing attribute information
20 included in the image sharing request, where the attribute information includes first
location information of the images and text information entered by the first user when
the first user shares the images; searching, based on the first location information and
the text information, a database for a service object associated with the images; and
pushing the images to a second user associated with the user, and sending information
25 about the service object to the second user based on a predetermined policy.

[0006] A method for implementing service operations based on images is

provided, where the method is applied to a client, and the method includes: displaying images that are pushed by a server and shared by a first user associated with a current user; when service operations performed by the current user on the images shared by the first user are detected, generating a service operation request for the images; and
 5 sending the service operation request to the server, receiving information about a service object associated with the images that is returned by the server, and performing corresponding operations, where the service object is found by searching the database by the server based on first location information and text information of the images, where the text information is entered by the first user when the first user
 10 shares the images.

[0007] A device for implementing service operations based on images is provided, where the device is applied to a server, and the device includes: a sharing and receiving unit, configured to: after receiving an image sharing request sent by a first user, store attribute information included in the image sharing request, where the
 15 attribute information includes first location information of the images and text information entered by the first user when the first user shares the images; an object search unit, configured to search, based on the first location information and the text information, a database for a service object associated with the images; an image pushing unit, configured to push the images to a second user associated with the user;
 20 and an object sending unit, configured to send information about the service object to the second user based on a predetermined policy.

[0008] A device for implementing service operations based on images is provided, where the device is applied to a client, and the device includes: an image display unit, configured to display images that are pushed by a server and shared by a first user
 25 associated with a current user; a request generation unit, configured to: when service operations performed by the current user on the images shared by the first user are detected, generate a service operation request for the images; and an operation execution unit, configured to send the service operation request to the server, receive information about a service object associated with the images that is returned by the
 30 server, and perform corresponding operations, where the service object is found by searching the database by the server based on first location information and text information of the images, where the text information is entered by the first user when the first user shares the images.

[0009] It can be seen from the previous description that, based on the

implementation solutions of the present application, a user can obtain the information about the corresponding service object by using the images shared by the associated user, without a need to redirect to another page. Therefore, the operations are simple and fast, thereby improving use experience of the user.

5

BRIEF DESCRIPTION OF DRAWINGS

[0010] FIG. 1 is a schematic flowchart illustrating a method for implementing service operations based on images, according to an example implementation of the present application;

10 [0011] FIG. 2 is a schematic flowchart illustrating another method for implementing service operations based on images, according to an example implementation of the present application;

[0012] FIG. 3 is a schematic diagram illustrating a client web page, according to an example implementation of the present application;

15 [0013] FIG. 4 is a schematic diagram illustrating a client web page, according to an example implementation of the present application;

[0014] FIG. 5 is a schematic diagram illustrating a client web page, according to an example implementation of the present application;

[0015] FIG. 6 is a schematic diagram illustrating a client web page, according to an example implementation of the present application;

20 [0016] FIG. 7 is a schematic diagram illustrating a client web page, according to an example implementation of the present application;

[0017] FIG. 8 is a schematic structural diagram illustrating a device for implementing service operations based on images, according to an example implementation of the present application;

25 [0018] FIG. 9 is a block diagram illustrating a device for implementing service operations based on images, according to an example implementation of the present application; and

30 [0019] FIG. 10 is a block diagram illustrating another device for implementing service operations based on images, according to an example implementation of the present application.

DESCRIPTION OF IMPLEMENTATIONS

[0020] Example implementations are described in detail here, and examples of the example implementations are presented in the accompanying drawings. When the following description relates to the accompanying drawings, unless specified
5 otherwise, same numbers in different accompanying drawings represent same or similar elements. Implementations described in the following example implementations do not represent all implementations consistent with the present application. Instead, they are only examples of devices and methods consistent with some aspects of the present application that are described in detail in the appended
10 claims.

[0021] The terms used in the present application are merely for illustrating specific implementations, and are not intended to limit the present application. The terms "a" and "the" of singular forms used in the present application and the appended claims are also intended to include plural forms, unless otherwise specified in the
15 context clearly. It should be further understood that the term "and/or" used in the present specification indicates and includes any or all possible combinations of one or more associated listed items.

[0022] It should be understood that although terms "first", "second", "third", etc. may be used in the present application to describe various types of information, the
20 information is not limited to the terms. These terms are only used to differentiate information of a same type. For example, without departing from the scope of the present application, first information can alternatively be referred to as second information, and similarly, the second information can alternatively be referred to as the first information. Depending on the context, for example, the word "if" used here
25 can be explained as "while", "when", or "in response to determining".

[0023] FIG. 1 is a schematic flowchart illustrating a method for implementing service operations based on images, according to an example implementation of the present application.

[0024] Referring to FIG. 1, the method for implementing service operations based on images can be applied to a server, for example, a server or a server cluster
30 deployed by a service provider, and the method includes the following steps.

[0025] Step 101: After an image sharing request sent by a first user is received, store attribute information included in the image sharing request, where the attribute

information includes first location information of the images and text information entered by the first user when the first user shares the images.

[0026] In the present implementation, the first user can share the images by using a sharing function provided in a social app. For example, the first user can share the images by using Community of ALIPAY, or the first user can alternatively share the images by using Moments of WeChat. Certainly, in addition to the social app, the user can alternatively share the images by using an app that provides a community function or a forum function. Implementations are not limited in the present application.

[0027] Step 102: Search, based on the first location information and the text information, a database for a service object associated with the images.

[0028] In the present implementation, the database may be a database that stores location information and information about a corresponding service object, such as a map database, and the service object may include a third-party service organization such as a shop, a school, or a bank.

[0029] Step 103: Push the images to a second user associated with the user, and send information about the service object to the second user based on a predetermined policy.

[0030] In the present implementation, after receiving the image sharing request sent by the first user, the server may push the images to the second user associated with the first user. The second user may be a friend of the user, a person who follows the user, a person who has performed service interaction with the user, or the like.

[0031] In the present implementation, the server may first push, to the second user, a notification that there is new sharing, and when the second user checks the new sharing, the images may then be sent to the second user. For processing and implementation of this part, refer to related technologies. Details are omitted here for simplicity in the present application.

[0032] In the present implementation, the predetermined policy may be active sending. For example, the server can send the information about the service object and the images to the second user together. Alternatively, the predetermined policy may be triggered sending. For example, when receiving a service operation request for the images that is sent by the second user, the server can send the information about the service object to the second user.

[0033] It is worthwhile to note that interaction processes of the user and the server

that are described in the present implementation of the present application, such as an interaction process of sending the image sharing request by the first user to the server and an interaction process of pushing image sharing by the server to the second user, are all interaction processes of the server and a client logged in by the related user using a user account of the user. Details are omitted below for simplicity.

[0034] FIG. 2 is a schematic flowchart illustrating another method for implementing service operations based on images, according to an example implementation of the present application.

[0035] Referring to FIG. 2, the method for implementing service operations based on images can be applied to a client and includes the following steps.

[0036] Step 201: Display images that are pushed by a server and shared by a first user associated with a current user.

[0037] Step 202: When service operations performed by the current user on the images shared by the first user are detected, generate a service operation request for the images.

[0038] In the present implementation, the current user may select, in a way such as tap or double-touch, the images shared by the first user. The client of the current user can further display one or more service operation options, and the service operation option is oriented to a service object associated with the images. When selecting a certain service operation option, the user can determine that the service operations performed on the images are detected.

[0039] Step 203: Send the service operation request to the server, receive information about a service object associated with the images that is returned by the server, and perform corresponding operations.

[0040] In the present implementation, after receiving name information and second location information of the service object that are returned by the server, the client of the current user can invoke a map app and locate the service object in the map app. Certainly, in practice, if the client of the current user has a map function, the client can alternatively jump to a map page and locate the service object on the map page.

[0041] In the present implementation, after receiving the service information of the service object that is returned by the server, the client of the current user can display the service information, so that the user can check the service information. The service information includes at least one of the following information: an

experience service, a contact number, promotion information, discount information, etc.

[0042] In the present implementation, after receiving payment information of the service object that is returned by the server, the client of the current user can jump to a payment page oriented to the service object, so that the user completes a payment operation. Certainly, in practice, if the client of the current user does not have a payment function, another payment app may alternatively be invoked. Implementations are not limited in the present application.

[0043] It can be seen from the previous description that, based on the implementation solutions of the present application, the user can implement operations on the corresponding service object such as location, service search, and payment by using the images shared by the associated user, without a need to redirect to another page. Therefore, the operations are simple and fast, thereby improving use experience of the user.

[0044] The following describes the technical solutions of the present application in detail by using three phases: publishing of image sharing, searching of an associated service object, and implementation of service operations.

[0045] I. Publishing of image sharing

[0046] In the present implementation, the Community of ALIPAY is used as an example, and the user can share images of food, scenery, etc. in the Community. For ease of differentiation, the user who shares the images may be referred to as the first user. When the first user selects a "record life" function of ALIPAY, an image that needs to be shared may be added. For example, a camera may be invoked to take a photo or a photo may be selected from photo libraries. After the first user adds an image, the client (ALIPAY) can obtain attribute information of current image sharing. The attribute information can generally include location coordinates (first location information) of the image and text information entered when the first user shares the image. The location coordinates of the image are generally obtained and stored by the terminal device when the image is being taken. In this example, when the user selects sending, the client may add the obtained first location information, text information, etc. to the image sharing request and send the image sharing request to the server.

[0047] In the present implementation, after receiving the image sharing request, the server can generate a unique image ID for the image, and store a mapping relationship between the attribute information and the image ID.

[0048] Assume that the first user White shares an image of a kebab in the Community, location coordinates of the image are coordinates 1, and text information is "kebabs here are really delicious". The server generates an image ID 1 for the corresponding image, and the server can store a mapping relationship between the attribute information and the image ID in the following table. It is worthwhile to note that Table 1 is merely an example for description. In practice, the server may not organize such a table. Implementations are not limited in the present application.

Table 1

Image ID	Location coordinates of an image	Text information
1	Coordinates 1	Kebabs here are really delicious
2	Coordinates 2	Beautiful!
3	Coordinates 3	Superb film

[0049] In the present implementation, the server can add the image ID 1 of the image to image sharing of White and push the image sharing of White to a friend of White, and the friend of White can check the sharing by using the Community of ALIPAY.

[0050] II. Searching of an associated service object

[0051] In the present implementation, after receiving the image sharing request sent by White, the server can search, based on the first location information and the text information that are included in the image sharing request, the database for the service object associated with the image. The database may be a service object database of this platform, or the database may alternatively be a database provided by another platform, for example, a certain map database. Implementations are not limited in the present application.

[0052] In the present implementation, because an error may occur during GPS positioning, the location coordinates (first location information) obtained by the terminal device when the terminal device takes the image may not be accurate enough. The server can identify a plurality of matching shops based on the first location information. For example, the server can identify "Alibaba Kebabs" and "Cleanness Dry Cleaner". In such a case, the server can separately match, against information of "Alibaba Kebabs" and information of "Cleanness Dry Cleaner", the text information

of "kebabs here are really delicious" that is sent by White. For example, the text information is divided into words, and the words are separately matched against the information of "Alibaba Kebabs" and the information of "Cleanness Dry Cleaner". In this example, the server can identify that "kebabs" in the text information matches
 5 services of "Alibaba Kebabs", and can further determine "Alibaba Kebabs" as a shop associated with the image. Certainly, in practice, the text information can alternatively be matched against the service object in another method. Generally, a most matching service object can be determined as the service object associated with the image.

[0053] In the present implementation, after receiving the image sharing request
 10 sent by White, the server can search for the shop associated with the image shared by White, and store a mapping relationship between the image ID 1 of the image, the found shop, and the accurate location coordinates (second location information) of the shop. The server may alternatively search for the shop after receiving a service operation request for the shop. Implementations are not limited in the present
 15 application.

[0054] III. Implementation of service operations

[0055] In the present implementation, assume that Black (the second user) is the friend of White. After receiving the image that is pushed by the server and shared by White, a client (ALIPAY) of Black can store the image ID 1 of the image. For
 20 example, the client can associate the image ID 1 with the image shared by White and store the image ID 1 and the image.

[0056] FIG. 3 shows a Community page that can be displayed by the client of Black. Assume that after noticing the image, Black wants to know where White gets the kebabs. In this example, Black does not need to redirect to a chat page to send a
 25 message to White, or need to ask White by using Comment in the Community. Black can tap the image, and the client can display one or more service operation options for Black, so that Black can make a selection.

[0057] In an example, referring to FIG. 4, after Black taps the image, the client can display the service operation option shown in FIG. 4. When Black selects the
 30 operation option, the client can send the image ID 1 of the image to the server. The server can further identify a shop corresponding to the image ID 1.

[0058] In the present implementation, "identify the shop at the location of the image address" corresponds to an identification request of the service object. After finding a matching shop, the server can return a name and accurate location

coordinates of the shop to the client of Black. After receiving the name and the accurate location coordinates, the client of Black can invoke the Amap app to locate the shop in the Amap app, and further display a page shown in FIG. 5. Black can search for information such as a route to the shop by using the page shown in FIG. 5.

5 **[0059]** Certainly, in practice, after finding the matching shop, the server may alternatively return only the name of the shop to the client of Black, so that the client of Black can display the name of the shop.

10 **[0060]** In another example, referring to FIG. 6, after Black taps the image, the client may display a service operation option shown in FIG. 6. "Payment to the shop" corresponds to a payment request oriented to the service object. After finding a matching shop, the server may return payment information of the shop to the client of Black. After receiving the payment information, the client of Black may jump to a payment page oriented to the shop, for example, the client of Black may display a page shown in FIG. 7. Black can pay the shop by using the page shown in FIG. 7.

15 **[0061]** In another example, after Black taps the image, the client may alternatively display a search request oriented to the service object, for example, the client may display a service operation option (not shown) of "check information about the shop". After finding the matching shop, the server may return service information of the shop to the client of Black, so that the client of Black displays the service information. The service information may include at least one of the following information: an experience service, a contact number, promotion information, discount information, etc.

20 **[0062]** In another example, after Black taps the image, the client may alternatively display a plurality of service operation options at the same time, and Black may make a selection based on needs of Black.

25 **[0063]** In another example, the server may send, to Black, both information about the matching shop and the image shared by White. After receiving the image and the information about the shop, the client of Black may display, based on a predetermined display rule, the matching shop while displaying the image shared by White, without needing a manual request of Black.

30 **[0064]** Based on the previous implementation solutions, after White adds the image and the text information, the client of White may send the first location information and the text information of the image to the server, and the server searches for a corresponding shop and may return the shop to the client. As such,

when White selects shared locations, the client may rank, in the first place, the shop found by the server, or automatically add the shop to locations shared by White, so that White does not need to repeatedly search the plurality of locations, thereby improving locating accuracy and improving use experience of the user.

5 **[0065]** Corresponding to the previous implementation of the methods for implementing service operations based on images, the present application further provides an implementation of a device for implementing service operations based on images.

10 **[0066]** Implementations of the device for implementing service operations based on images in the present application may be separately applied to a client mounted on the terminal device or to a server. The apparatus implementation can be implemented by software, hardware, or a combination of hardware and software. Software implementation is used as an example. As a logical device, the device is formed by reading a corresponding computer program instruction in a non-volatile memory into
15 the memory by a processor of the terminal device or the server where the device is located. From a perspective of hardware, FIG. 8 is a structural diagram illustrating hardware of a terminal device or a server where a device for implementing service operations based on images in the present application is located. In addition to a processor, a memory, a network interface, and a non-volatile memory shown in FIG. 8,
20 the terminal device or the server where the device in the present implementation is located can usually include other hardware based on actual functions of the terminal device or the server. Details are omitted here for simplicity.

25 **[0067]** FIG. 9 is a block diagram illustrating a device for implementing service operations based on images, according to an example implementation of the present application.

30 **[0068]** Referring to FIG. 9, a device 900 for implementing service operations based on images may be applied to the previous server shown in FIG. 8, and includes a sharing and receiving unit 901, an object search unit 902, an image pushing unit 903, and an object sending unit 904.

30 **[0069]** The sharing and receiving unit 901 is configured to: after receiving an image sharing request sent by a first user, store attribute information included in the image sharing request, where the attribute information includes first location information of the images and text information entered by the first user when the first user shares the images.

[0070] The object search unit 902 is configured to search, based on the first location information and the text information, a database for a service object associated with the images.

[0071] The image pushing unit 903 is configured to push the images to a second user associated with the user.

[0072] The object sending unit 904 is configured to send information about the service object to the second user based on a predetermined policy.

[0073] Optionally, the object sending unit 904 is configured to: when a service operation request for the images that is sent by the second user is received, send the information about the service object to the second user.

[0074] Optionally, the object sending unit 904 is configured to: when the service operation request is an identification request of the service object, send name information of the service object to the second user.

[0075] Optionally, the object sending unit 904 is configured to: when the service operation request is an identification request of the service object, send second location information of the service object in the database to the second user, so that a client of the second user invokes a map app and locates the service object in the map app.

[0076] Optionally, the object sending unit 904 is configured to: when the service operation request is a service search request of the service object, send service information of the service object to the second user, so that the second user can check the service information.

[0077] Optionally, the service information includes at least one of the following information: an experience service, a contact number, promotion information, and discount information.

[0078] Optionally, the object sending unit 904 is configured to: when the service operation request is a payment request, send payment information of the service object to the second user, so that a client of the second user jumps to a payment page oriented to the service object.

[0079] Optionally, the object sending unit 904 is configured to send the information about the service object and the images to the second user together.

[0080] Optionally, the object search unit 902 is configured to: search the database for a service object that matches the first location information; when a plurality of service objects are found, match the text information against information about each

found service object; and determine that a service object whose matching result satisfies a predetermined requirement is the service object that is associated with the images.

[0081] FIG. 10 is a block diagram illustrating another device for implementing service operations based on images, according to an example implementation of the present application.

[0082] Referring to FIG. 10, a device 1000 for implementing service operations based on images may be applied to the terminal device shown in FIG. 8, and includes an image display unit 1001, a request generation unit 1002, and an operation execution unit 1003.

[0083] The image display unit 1001 is configured to display images that are pushed by a server and shared by a first user associated with a current user.

[0084] The request generation unit 1002 is configured to: when service operations performed by the current user on the images shared by the first user are detected, generate a service operation request for the images.

[0085] The operation execution unit 1003 is configured to send the service operation request to the server, receive information about a service object associated with the images that is returned by the server, and perform corresponding operations.

[0086] The service object is found by searching the database by the server based on first location information and text information of the images, where the text information is entered by the first user when the first user shares the images.

[0087] Optionally, the request generation unit 1002 is configured to: when predetermined operations performed by the current user on the images shared by the first user are detected, display one or more service operation options, and if the current user selects the service operation option, determine that the service operations performed on the images shared by the first user are detected.

[0088] Optionally, the operation execution unit 1003 is configured to: when the service operation request is an identification request of the service object, receive second location information of the service object that is returned by the server; and invoke a map app, and locate the service object in the map app based on the second location information.

[0089] Optionally, the operation execution unit 1003 is configured to: when the service operation request is a service search request of the service object, receive service information of the service object that is returned by the server and display the

service information.

[0090] Optionally, the service information includes at least one of the following information: an experience service, a contact number, promotion information, and discount information.

5 **[0091]** Optionally, the operation execution unit 1003 is configured to: when the service operation request is a payment request, receive payment information of the service object that is returned by the server, and jump, based on the payment information, to a payment page oriented to the service object.

[0092] For an implementation process of functions and roles of each unit in the
10 device, references can be made to an implementation process of corresponding steps in the previous method. Details are omitted here for simplicity.

[0093] Because an apparatus implementation basically corresponds to a method implementation, for related parts, references can be made to related descriptions in the method implementation. The previously described apparatus implementation is
15 merely an example. The units described as separate parts may or may not be physically separate, and parts displayed as units may or may not be physical units, may be located in one position, or may be distributed on a plurality of network units. Some or all of the modules or units can be selected based on actual needs to achieve the objectives of the solutions in the present application. A person of ordinary skill in
20 the art can understand and implement the implementations of the present specification without creative efforts.

[0094] The system, device, module, or unit illustrated in the previous implementations can be implemented by using a computer chip or an entity, or can be implemented by using a product having a certain function. A typical implementation
25 device is a computer, and the computer can be a personal computer, a laptop computer, a cellular phone, a camera phone, a smartphone, a personal digital assistant, a media player, a navigation device, an email receiving and sending device, a game console, a tablet computer, a wearable device, or any combination of these devices.

[0095] The previous descriptions are merely examples of implementations of the
30 present application, but are not intended to limit the present application. Any modification, equivalent replacement, or improvement made without departing from the spirit and principle of the present application should fall within the protection scope of the present application.

CLAIMS

What is claimed is:

1. A computer-implemented method for performing service operations based on images, comprising:

5 displaying, by a device, one or more images to a current user, wherein the one or more images are sent by a server to the device after being shared by a first user associated with the current user;

in response to detecting one or more service operations performed by the current user on the one or more images shared by the first user, generating a service operation request for the one
10 or more images;

sending the service operation request to the server;

receiving information about a service object associated with the one or more images from the server, wherein the service object is identified by searching a database by the server based on location information and text information of the one or more images, wherein searching the
15 database by the server based on the location information and the text information of the one or more images comprises:

searching the database for a service object that matches the location information to determine a matching service object, and only

when a plurality of service objects are found, additionally matching the text
20 information against respective information about each found service object to determine the matching service object, and

determining that the determined matching service object is the service object that is associated with the one or more images,

wherein the text information is entered by the first user when the first user shares the one
25 or more images; and

performing one or more operations based on the received information about the service object associated with the one or more images.

2. The computer-implemented method of claim 1, wherein generating the service operation
30 request for the one or more images comprises:

displaying one or more service operation options to the current user,

wherein detecting one or more service operations performed by the current user on the one or more images shared by the first user comprises detecting that the current user selects at least one of the one or more service operation options.

- 5 3. The computer-implemented method of claim 1, wherein the service operation request comprises an identification request of the service object.

4. The computer-implemented method of claim 3, wherein receiving information about the service object associated with the one or more images from the server comprises receiving name
10 information of the service object.

5. The computer-implemented method of claim 1, wherein receiving information about the service object associated with the one or more images from the server comprises:
 receiving second location information of the service object so that the device invokes a
15 map application and locates the service object based on the second location information in the map application.

6. The computer-implemented method of claim 1, wherein the information comprises at least one of the following: an experience service, a contact number, promotion information, or
20 discount information.

7. The computer-implemented method of claim 1, wherein the service operation request comprises a payment request, and wherein receiving information about the service object associated with the one or more images from the server, comprises:
25 receiving payment information about the service object; and
 automatically retrieving a payment page associated with the service object based on the payment information.

8. The computer-implemented method of claim 1, wherein receiving information about the
30 service object associated with the one or more images from the server comprises:
 receiving the information about the service object and the one or more images together.

9. The computer-implemented method of claim 1 further comprising, after receiving information about the service object associated with the one or more images from the server, displaying, by the device, the information about the service object associated with the one or
5 more images to the current user.
10. A system for implementing service operations based on images, the system comprising a plurality of modules configured to perform the computer-implemented method of any one of claims 1 to 9.