

and human resource to maintain the server. However, after the application is on the market for a period of time, the demand for the application may grow and overwhelm the capacity of the static server, potentially causing jamming or crashing of the server. As such, the traditional static server architecture inevitably mismatches supply and demand, providing either too much or not enough computational resources.

SUMMARY

[0004] The embodiments herein disclose chatbot check-in platforms implemented with serverless computing architecture and application management methods. The platform analyzes a chatbot request of a user to find a particular service and presents options to the user for such service. The serverless architecture responds to demand dynamically. The serverless architecture is automatically scalable to match the change of demand, providing no mismatch between demand and supply of computational resources.

[0005] This disclosure uses a salon application that uses a chatbot check-in platform, as an example of an application management. It is noted that the computational architecture disclosed is not limited to a salon application. Other software applications such as finding a car, a house, a restaurant, a nail shop, a movie, a hotel, a service, or the like can all be similarly managed by the chatbot platform.

[0005a] In an aspect, the present disclosure provides a chatbox check-in platform for checking for salon services through a salon application, comprising: a salon application associated with a messenger chatbot, wherein the salon application is configured for a user to make a request for an appointment for a salon service via the messenger chatbot; an application assistant comprising a first booking engine, a salon location finder and an intent analyzer, wherein the application assistant is in communication with the salon application for finding a salon nearby the user, the intent analyzer is configured to decipher the user's request to find a salon matching the user's request; a first salon services API in communication with the intent analyzer for finding at least one matching salon for the user's request and wherein the intent analyzer is in communication with the salon location finder which is configured to find a location of a salon matched by the first salon services API and return to the intent analyzer one or more candidate salons and the intent analyzer is configured to

communicate with the first booking engine; a gateway API located on a serverless backend system and in communication with the first booking engine, wherein the gateway API is configured to control data throttling to handle the user's request and to create a cache having a defined size, data structure and forward and backward linkings for the request and time-to-live of data; and a second booking engine in communication with the gateway API, wherein the second booking engine is located on the serverless backend system responding to the request and is configured to communicate with a dynamic database configured to provision resources only when requested for storing the salon service and time.

[0006] A chatbot check-in platform includes a salon application associated with a messenger chatbot, wherein a user requests via voice an appointment for a salon service. The platform includes a location service in communication with the salon application for finding a salon nearby a user; a salon services API in communication with the salon application for finding a requested salon service and time for appointment for the salon; and a database interface responding to a request for making an appointment with the salon.

[0007] In another example, the present disclosure provides a method of using a chatbot check-in platform, the method including instructions, when executed by a processor, that cause the processor to execute actions comprising: receiving, by a first processor of a serverless backend system comprising a gateway API, a request received via input on a user interactive device associated with a messenger chatbot for booking an appointment for a service provided by a salon, wherein the first processor is a processor of a device, the device includes

CLAIMS

What is claimed is:

1. A chatbot check-in platform (100) for checking for salon services through a salon application, comprising:

a salon application (104) associated with a messenger chatbot (102), wherein the salon application is configured for a user to make a request for an appointment for a salon service via the messenger chatbot;

an application assistant (106) comprising a first booking engine (116), a salon location finder (108) and an intent analyzer (110), wherein the application assistant (106) is in communication with the salon application (104) for finding a salon nearby the user, the intent analyzer (110) is configured to decipher the user's request to find a salon matching the user's request;

a first salon services API (114) in communication with the intent analyzer (110) for finding at least one matching salon for the user's request and wherein the intent analyzer is in communication with the salon location finder (108) which is configured to find a location of a salon matched by the first salon services API (114) and return to the intent analyzer (110) one or more candidate salons and the intent analyzer (110) is configured to communicate with the first booking engine (116);

a gateway API (122), located on a serverless backend system (120) and in communication with the first booking engine (116), wherein the gateway API (122) is configured to control data throttling to handle the user's request and to create a cache having a defined size, data structure and forward and backward linkings for the request and time-to-live of data; and

a second booking engine (124) in communication with the gateway API (122), wherein the second booking engine (124) is located on the serverless backend system (120) responding to the request and is configured to communicate with a dynamic database (134) configured to provision resources only when requested for storing the salon service and time.

2. A chatbot check-in platform (100) for checking for salon services through a salon application according to claim 1, further comprising a pay service in communication with the salon application.
3. A chatbot check-in platform (100) for checking for salon services through a salon application according to claim 1, further comprising a demand generation platform in communication with the salon application.
4. A chatbot check-in platform (100) for checking for salon services through a salon application according to claim 1, wherein a second salon services API (136) in communication with the second booking engine keeps updated information of a plurality of salons including real-time availability, an available service provider and/or a specialty of a salon.
5. A chatbot check-in platform (100) for checking for salon services through a salon application according to claim 4, wherein the salon application resides on a user device.
6. A chatbot check-in platform (100) for checking for salon services through a salon application according to claim 1, wherein the salon application executes on the serverless backend system.
7. A chatbot check-in platform (100) for checking for salon services through a salon application, further comprising a map API (112) in communication with the salon application (104).