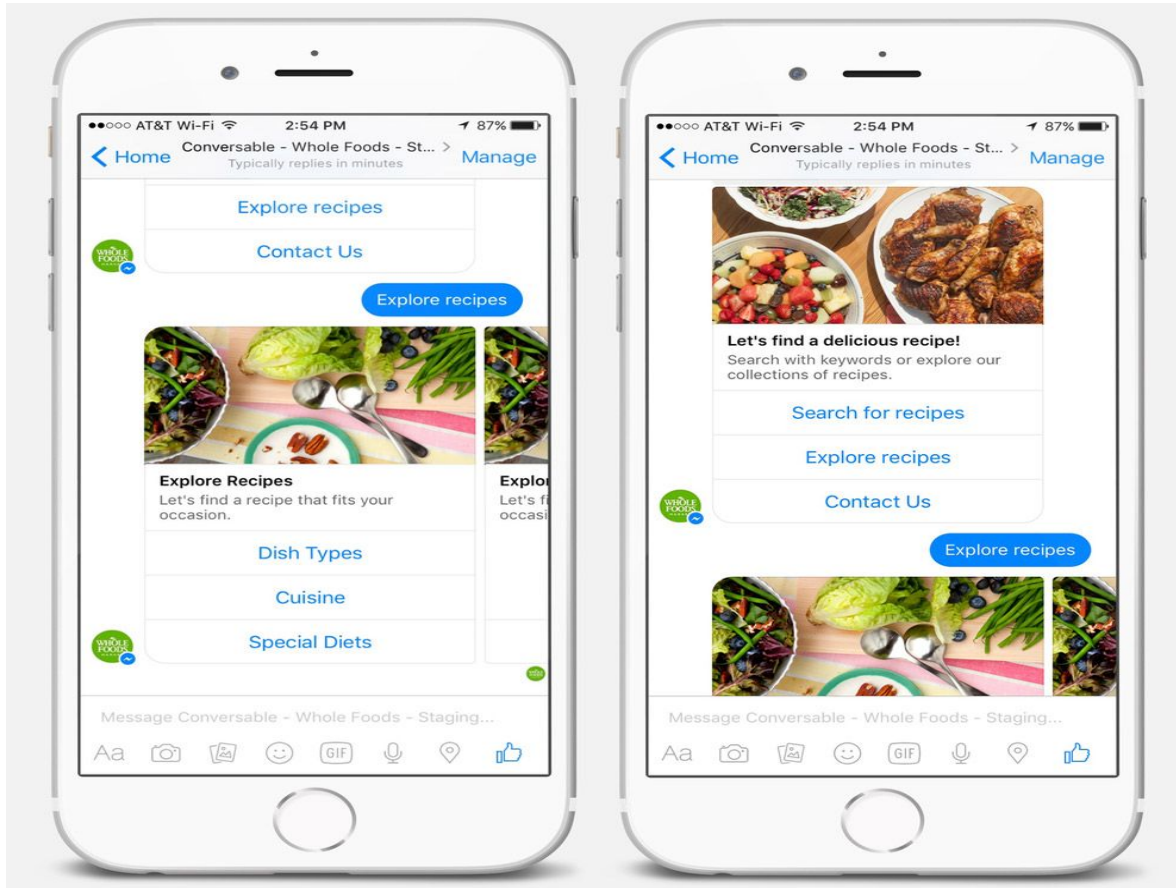# Facebook Restaurant Chatbot

By Minh Do

Main functionality

- Support searching restaurant based on the given information (e.g. food type)
- Be able to locate user and find restaurant nearby.
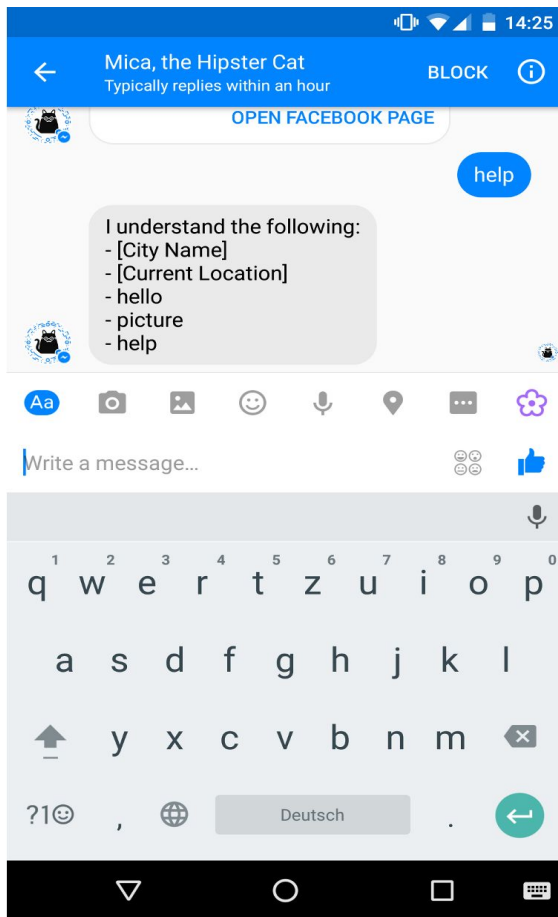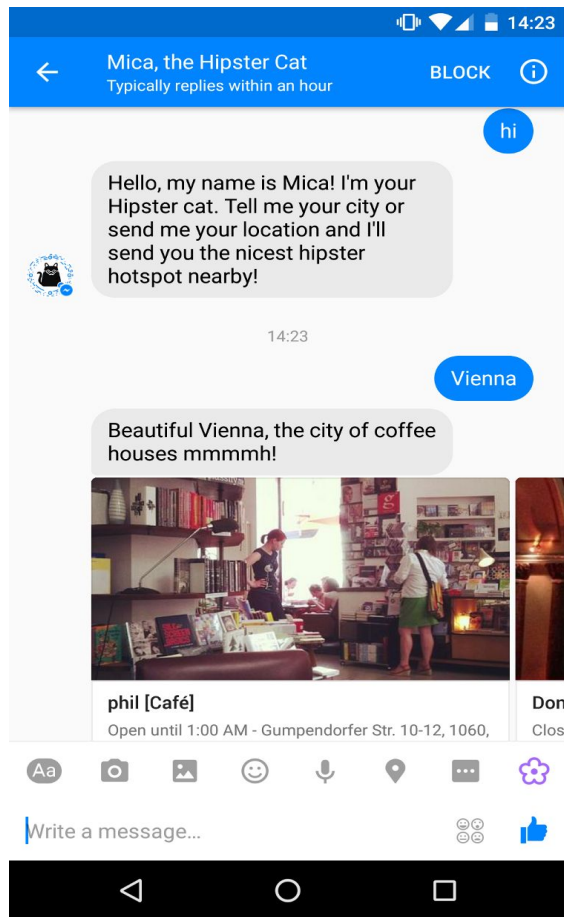
Additional functionality

- Handle basic conversation:

+/ Greetings

+/ Ask about identity and creator
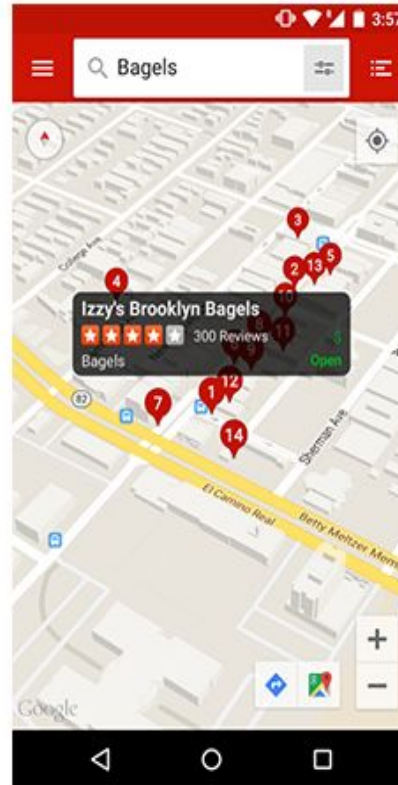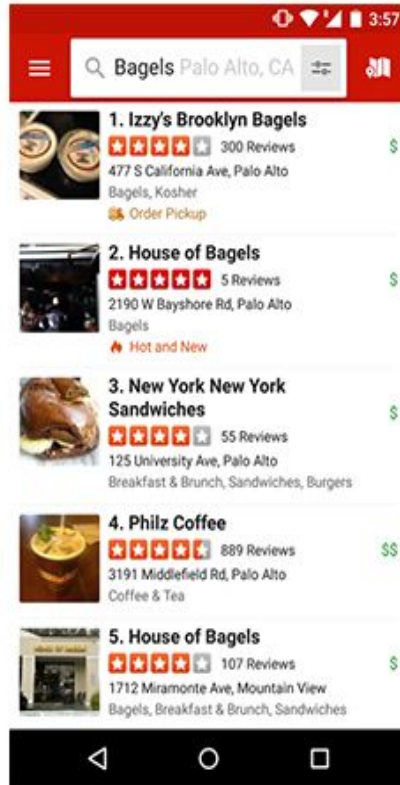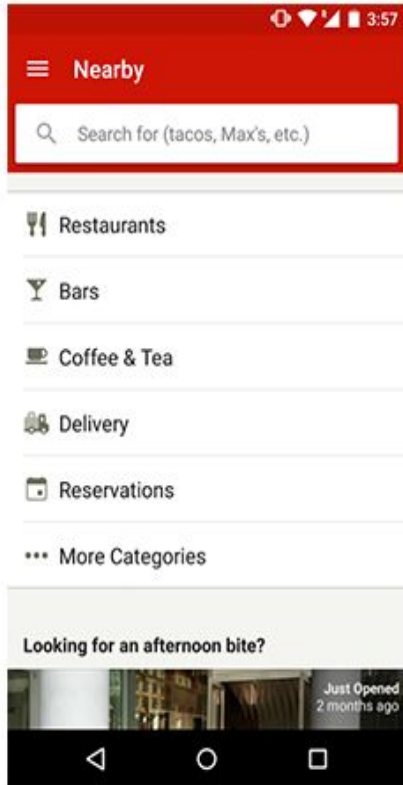
+/ Goodbye

The Food Network Chatbot

- Promptly gives users a number of options to choose such as ingredients or meal type to finally suggest a dish

=> Simple and efficient

- **System-initiative**: the bot only gives the user options to pick without understanding of what they type in

=> Too limited

Mica, the Hipster Chatbot

- Take input as a location, Mica outputs a selection of the best restaurants or coffee shops close by.

=> More interaction

- User does not get to choose their type of food or drink

=> Limited

Search directly

- Most common
- Many categories to specify
- Guaranteed to get many possible options.

=> Good but not compact + slow

Method

- **For basic conversation sentences**, use regular expression to categorize input and pick one response from the bank

- **For restaurant suggestion**, first of all extract all the noun phrases and verbs. Then, there are 2 possibilities:

+/ Have specified location: Use YelpAPI and terms extracted to search for a list of restaurants and rank them based on the number of reviews.

+/ No specified location: ask the user to send their location. Then use it to find restaurants and rank them based on how close they are to the user.

Demo

Evaluation

Pros

- Simple to design
- Efficient
- Accurate result

Cons

- Can only understand one-sentence commands and basic conversation

Room for improvement

- User can manipulate output
- Can provide information of a specific restaurant when being asked

Thank you for listening