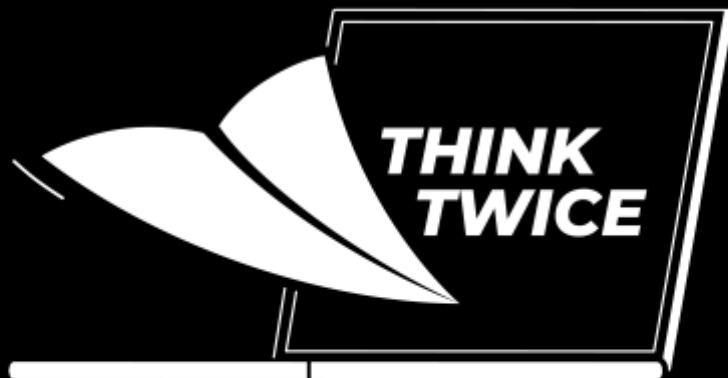# COCUS

# Hackathon

# Projects



THINK
TWICE

# 1 - Customer Service Chatbot

## Objective

Your assignment is to implement a customer service chatbot for the travel industry, using Artificial Intelligence.

## Description

So, what is a chatbot? It is a piece of software that is designed to automate a specific task. More specifically, a chatbot is a conversational user interface that can be connected to a series of data sources through an API so that it can offer information or services on demand, such as weather forecasts, breaking news, status updates or order information.

From a technological point of view, a chatbot represents the natural evolution of a response system to questions that take advantage of natural language processing (NLP) and Artificial Intelligence (AI).

## Brief

More and more businesses will be taking advantage of chatbots and their AI technologies. Your task is to build an awesome chatbot that can book flights for customers based on budget and schedule.

The bot uses the visitor's location to determine where they are traveling from, and then sends them great travel deals from that location.

The choice of the API is up to you, there are many public APIs available, such as Aviationstack and OpenSky. Alternatively, the travel deals can also be obtained by using open-source data or by building a hard-coded solution.

Your chatbots should give the ability to provide 24/7 instant services to customers in a human-like manner. Design it to take advantage of NLP and answer greetings and basic questions like: "Hello", "Good morning", "Thank you", "Goodbye", "How are you?", "How are you doing/going?", "How can you help me?", "What can you do?". It should also propose clickable options to help the customer take the action they want.

As sometimes, customers face more complex problems that require human interaction, they should be able to request the chatbot to connect them to a human customer support agent and, in an instant, be connected to a live agent.
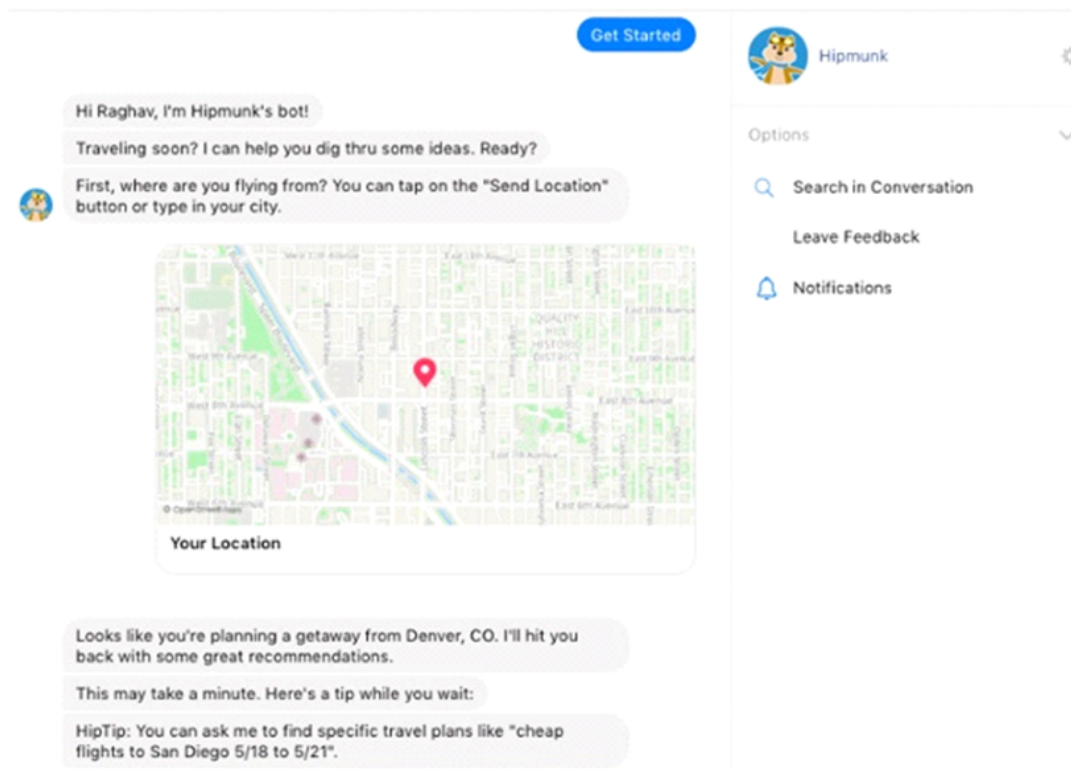
Finally, the chatbot should be able to collect customers' feedback (quick survey with the use of emojis for example).

You can choose to build the chatbot on the platform and channel of your choice to help you complete the challenge.

## Mockups

The example attached is from the Hipmunk Facebook Messenger Bot.
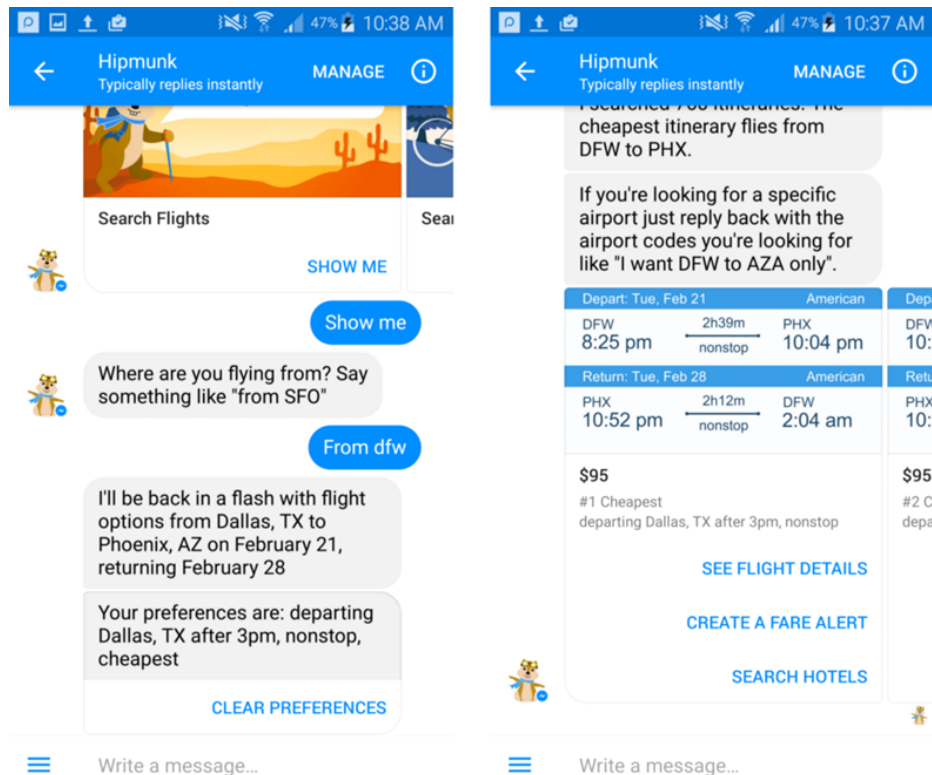
## Tasks

- Build an automated sales agent on the platform and channel of your choice. Train, test and deploy it.
- Make use of the chatbots conversational UI elements:
  - Buttons or quick replies
  - Images
  - Carousel
  - Map
- Your users should be able to:
  - Receive greetings in a casual language
  - Understand what the chatbot options are and select one of them
  - Ask a question and get an automated response
  - Perform a search using user location
  - Contact a real agent upon request
  - Give feedback

## Acceptance criteria

- Chatbot responding and handle basic Q&A
- Use of buttons or quick replies
- Use of carousel to display search results
- Use of geolocation and mapping, allowing users to ensure the bot has determined the right location
- Redirect customer requests to live agent
- Collect customer feedback

# 2 - Beacons

## What are beacons?

Beacon is a small bluetooth device that repeatedly transmits signals that other devices like your smartphone can see. Beacon broadcasts a radio signal that is a combination of letters and numbers approximately every 1/10th of a second. All smartphones "see" beacons when they receive a signal, much like sailors see light from a lighthouse.

Beacons deliver campaigns, help navigate and collect customer data. Beacons are one of the best ways to establish connection with your customers in a physical world. They trigger and deliver proximity campaigns to a person's phone based on his/hers location. Beacons also enable to collect important data on customer behavior and increase their engagement.

## Description

Beacons are one of the most exciting technologies of our time. Many creative and amazing people are working day and night to advance the future of Beacon technology. It's time for you to use your voice and skills to leverage the use of beacons on the Tourism industry.

We challenge you and your team to push the boundaries of technology and come up with innovative solutions using beacons in one of the following areas:

- Hotels | A tool/solution/software that welcomes a guest when he arrives at the hotel for the first time.

- Hotels | A tool/solution/software that allows management to know what are the places where guests spent more time in the hotel

- Transfers | A tool/solution/software that allows the user to know that we arrived at his transfer pick up point.

One way of simulating beacons is using mobile devices. There are numerous libraries available online for this usage. You can use the competition space in order to position one or more beacons.

# Deliverables

### Ideation Phase
Create your project page and tell us about:
- The problem
- The value proposition
- The solution
- The technology
- The team

### Development Phase
Develop your solution and update your project page with:
- Conclusions and Results
- Demo video
- Code
- Any other relevant documentation

Let your disruptive thinking go wild!