Master of Technology (Intelligent Systems)

ChatBot for Tourists in Singapore
Olive FoodBot

User Guide

Team Members

Edmund Leow Kwong Wei	A0198458H
Ng Mei Ying	A0198546L
Wilson Lum Kok Keong	A0198478A

Contents

Getting Started

You could either use our chatbot that is hosted on Heroku (See **Quickstart on Slack**) or install it to your own local server (See

Full installation and deployment).

See **Test Scenarios** for sample question and replies.

Quickstart on Slack

System Requirements

For quickstart, as the Python webhook backend for DialogFlow is already hosted on Heroku, the only system requirements are for running Slack[1]. See Tables below for minimum requirements.

Table 1. Slack system requirements for desktop apps

Operating System	Requirements
MacOS	• OS X 10.10 and above
Windows	• Windows 7 and above
Linux	• Fedora 28 and above • Ubuntu LTS release 16.04 and above • Red Hat Enterprise Linux 7.0 and above

Table 2. Slack system requirements for mobile apps

Operating System	Requirements
iOS	• iOS 11.1 and above
Android	• Android 4.4 and above
Windows	• No longer supported for Windows Phone

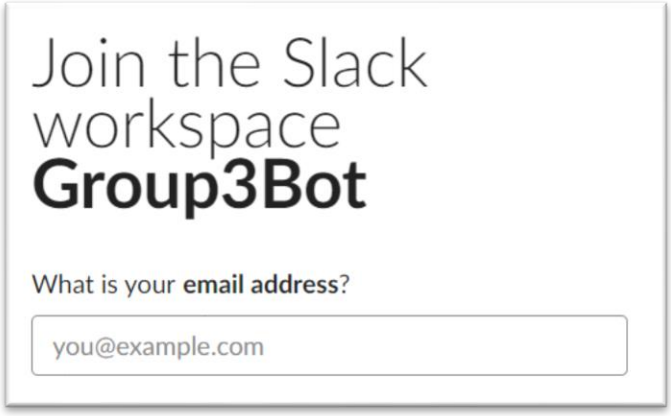
Table 3. Slack system requirements for web browsers

Operating System	Requirements
Chrome	• Version 66 and above
Firefox	• Version 60 and above
Safari	• Version 10.1 and above
Microsoft Edge	• Version 41 and above

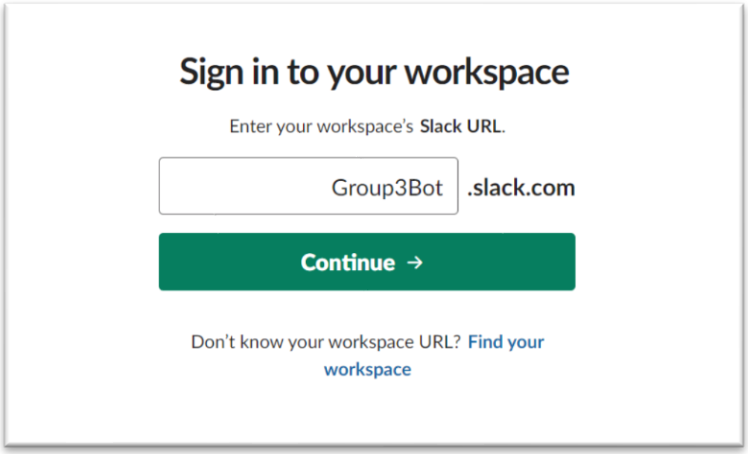
Installation Steps

1. As the slack app is not publicly distributed at the moment, it can only be used within our own workspace Group3Bot. Join the workspace with this link, and enter and verify your email address.

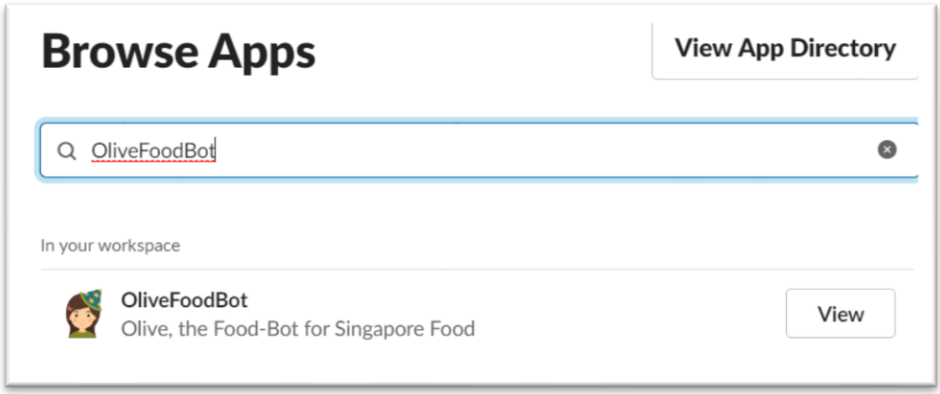
[1] https://get.slack.help/hc/en-us/articles/115002037526-Minimum-requirements-for-using-Slack



2. Sign in to the workspace **Group3Bot**



3. In the landing page, click the + button next to Apps, and search for **OliveFoodBot**, and click "View"



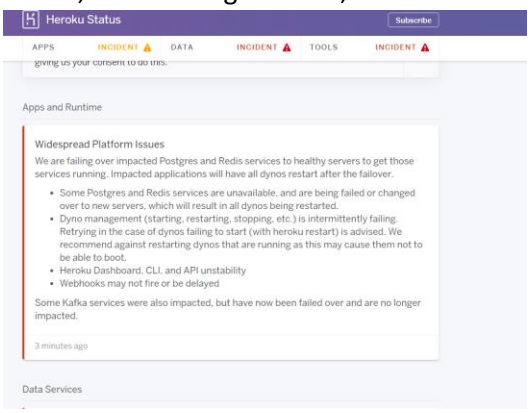
4. That's it. You can now begin chatting with OliveFoodBot

⚠ Note: As Heroku apps will go to sleep after 30 minutes of inactivity, please expect a longer response when you first start chatting with the FoodBot.

⚠ Warning: If for some reason, the Foodbot is not working properly (If it keeps giving "I do not understand" answers, it is highly likely that the backend Heroku server is not working for some reason. Please proceed to deploy it with a local server with the full instructions in the

next section below. Also, you could check https://status.heroku.com/ to see if Heroku is experiencing some issues.

In fact, as of 31 August 2019, Heroku was experiencing widespread platform issues



Full installation and deployment

Follow this section only if installing and deploying to your own DialogFlow account and web server.

System Requirements and Dependencies

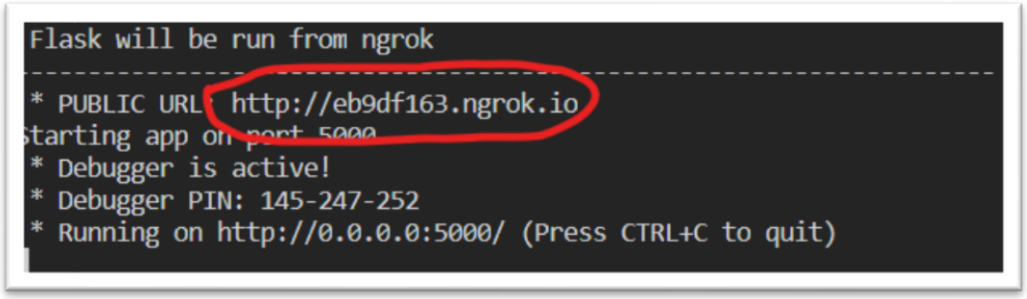
- Python or Anaconda, and Python libraries as specified in requirements.txt
- A modern web browser. Recommended Google Chrome version 76 and above.

Pre-requisites

- Google DialogFlow account. Sign up at https://console.dialogflow.com/
- Clone or download project source code from GitHub repository from https://github.com/eleow/IRS-CS-2019-07-01-IS1FT-GRP-OliveFoodBot
- Download ngrok.exe or ngrok binary to your machine from https://ngrok.com/download

Starting Python Flask for Webhooks

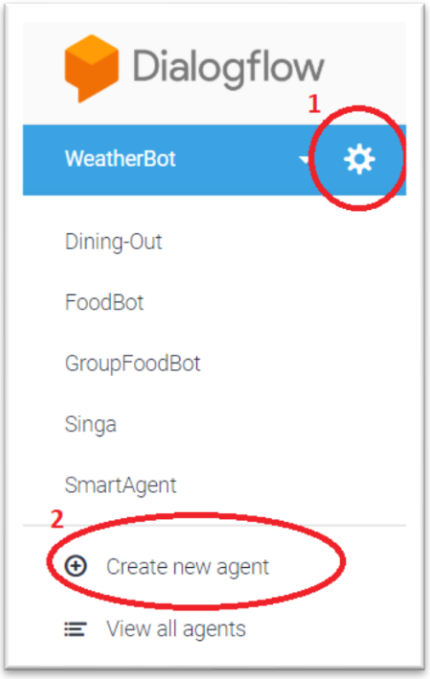
- Navigate to the backend scripts from your local copy of the GitHub repository at \SystemCode\Fulfillment
- Install python project dependencies via the following script in console
  `pip install -r requirements.txt`
- Run TouristFood-main.py by the following script in console:
  `python TouristFood-main.py`
- You should see the following in the console



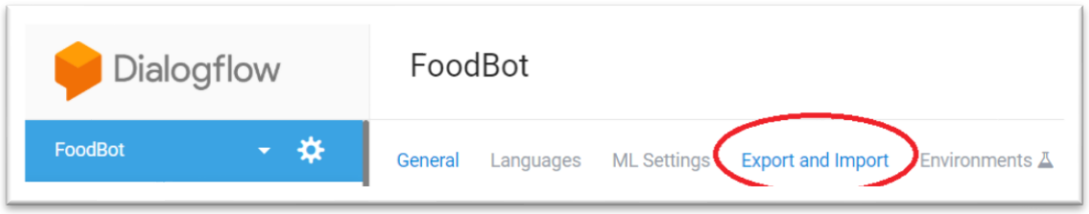
- Backend server is now running, and ngrok has been automatically started as well.
- Note down the public url for ngrok (Public url will change everytime you restart the backend)

Importing Chatbot into DialogFlow

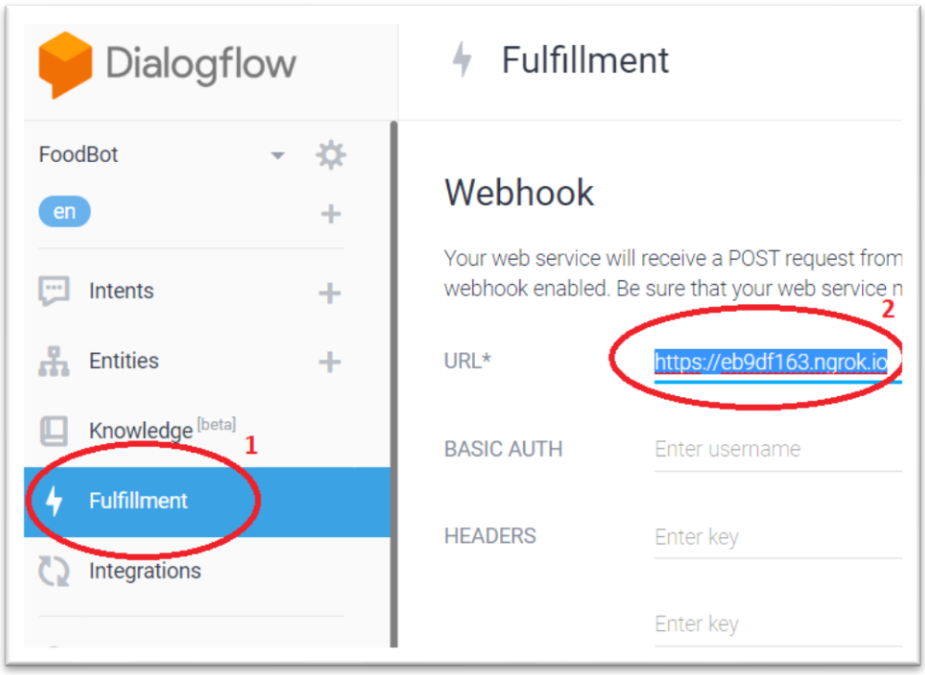
- Login to DialogFlow console at https://console.dialogflow.com/
- Create a new agent called "FoodBot" or whatever name you desire by
    1. Clicking the cog button
    2. Clicking the "Create new agent" button



- Import the zip file (OliveFoodBot.zip) from the local copy of the GitHub repository at \SystemCode\DialogFlow by clicking the "Export and Import" button on DialogFlow



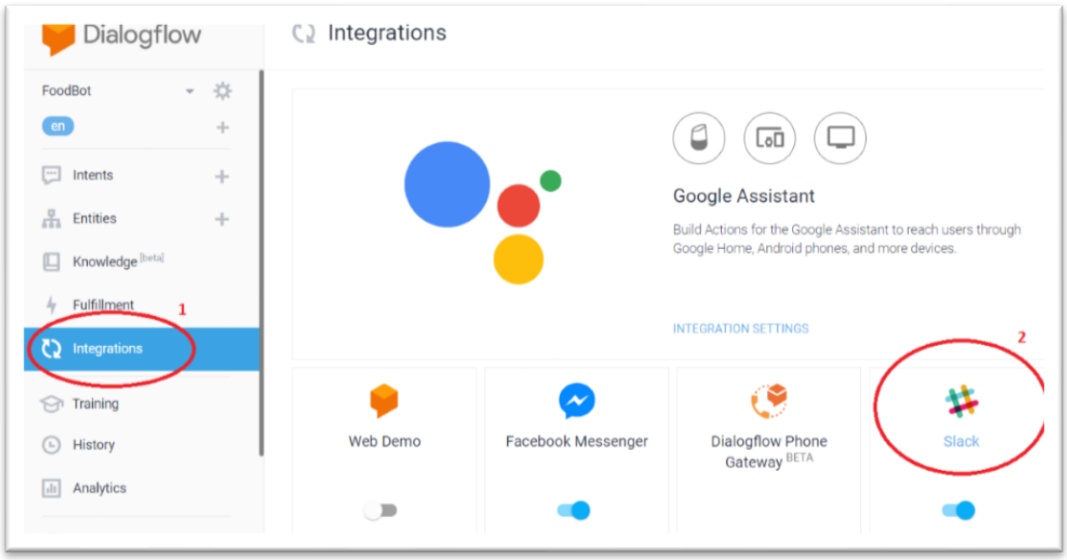
- In DialogFlow, navigate to **Fulfilment** and configure the webhook to point to the URL that was captured earlier, and then **remember to click Save.**



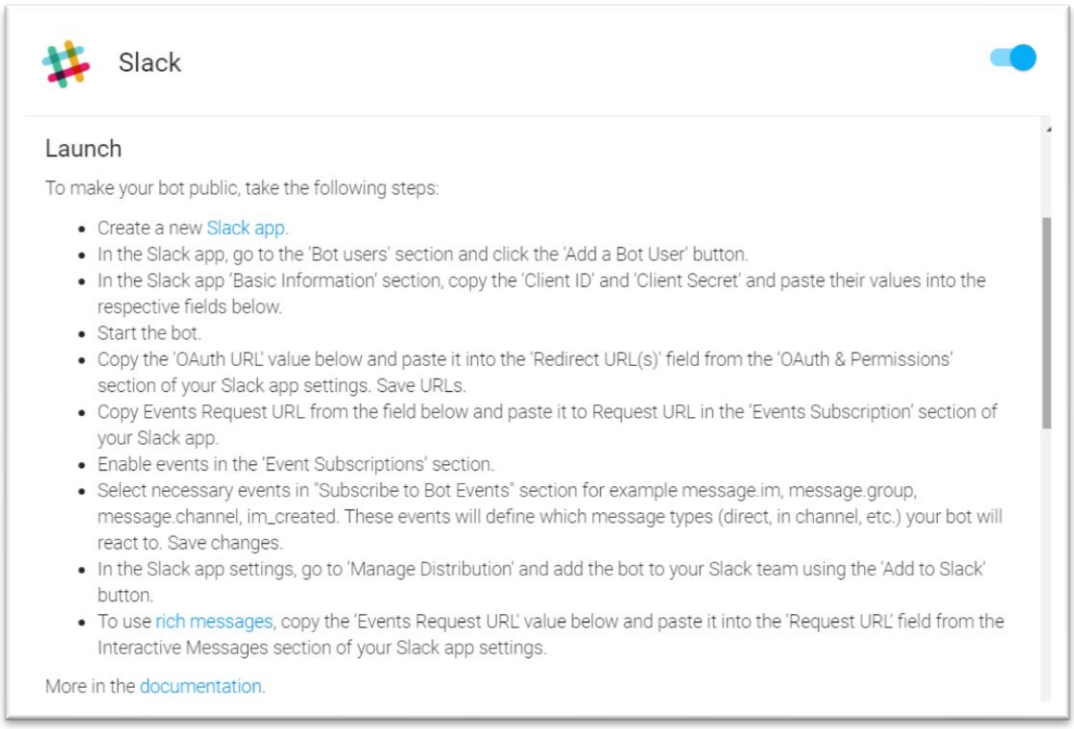
- The FoodBot is now running on DialogFlow and is connected to the local Python Flask web server through ngrok.

Deploying as a Slack app

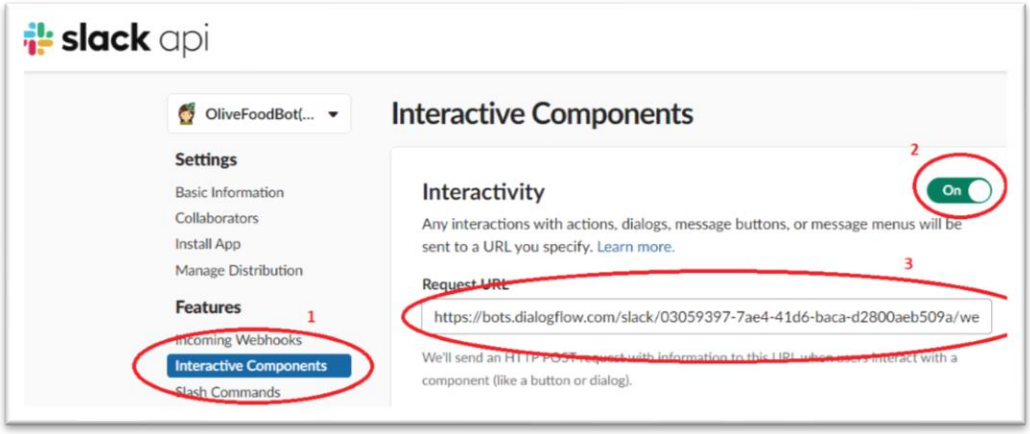
- As our FoodBot was optimised and tested as a Slack app, the best user experience would be achieved from Slack.
- In DialogFlow, navigate to **Integrations**, ensure that Slack integration is enabled, and click on the Slack icon.

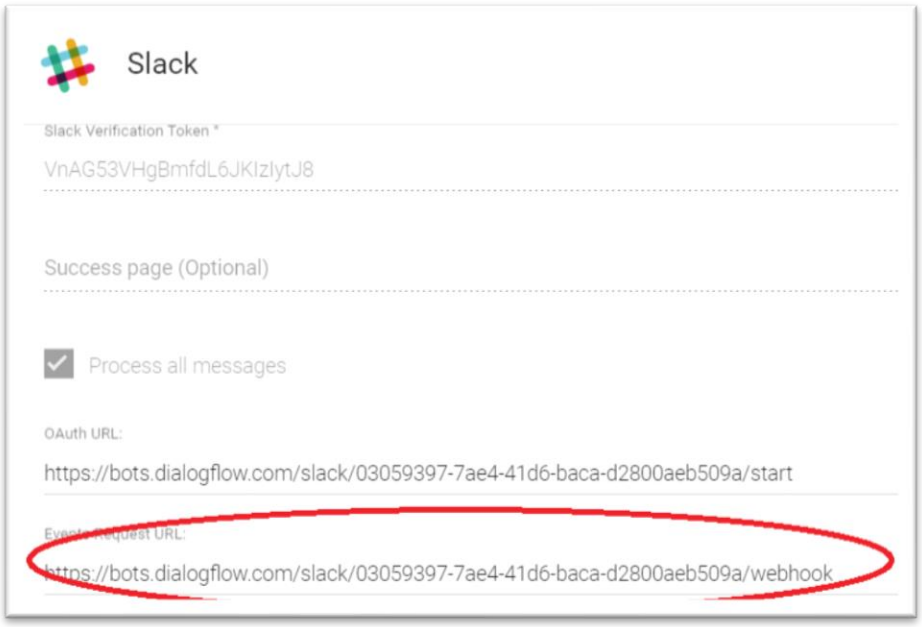


- Follow the instructions provided.



- After that, follow the additional steps below.
- Using your web browser, goto https://api.slack.com/apps, and locate your app
- Go to “Interactive Components”, switch it to “On” and enter the request URL. The request URL is given by the “Events Request URL” from DialogFlow

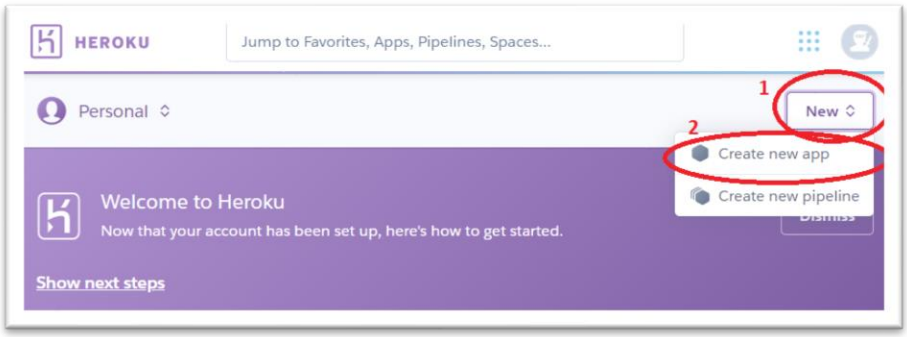




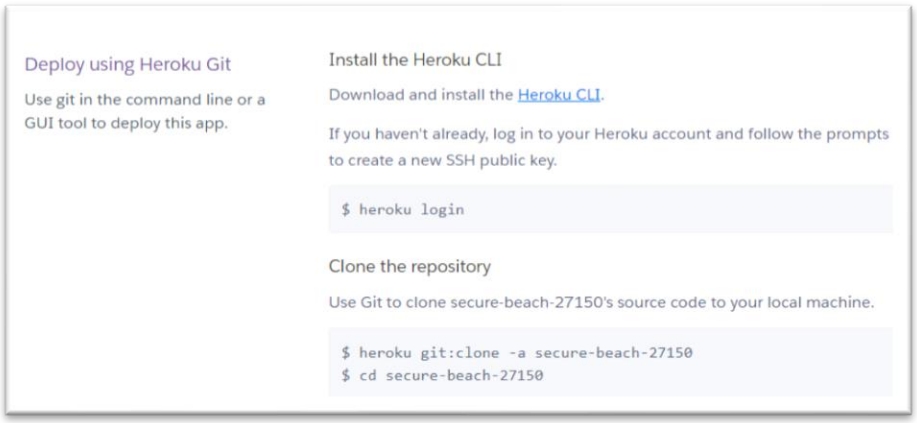
Hosting Python Flask on Heroku

It is also possible to deploy the backend Python webhook to Heroku instead of using ngrok.

- Sign up or log in to https://www.heroku.com/
- Create a new app

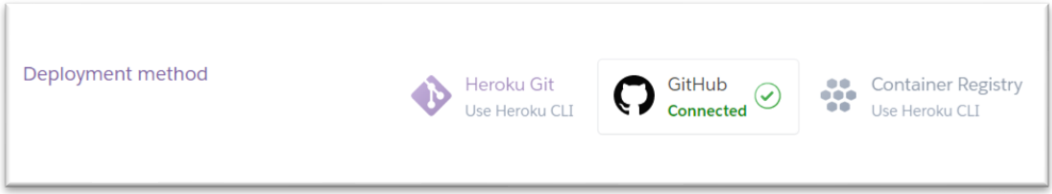


- If using Heroku Git, install the Heroku CLI and then login and follow the steps in the screenshot below

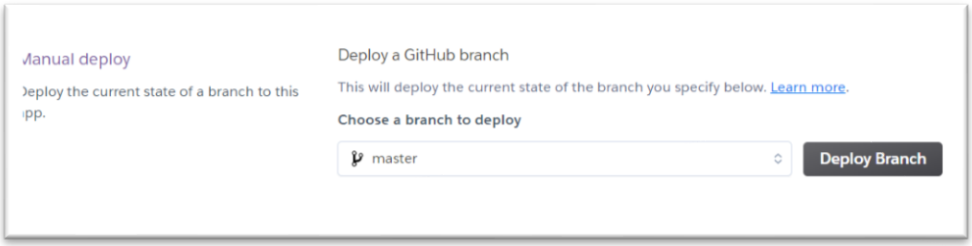


- Copy the contents from https://github.com/eleow/IRS-CS-2019-07-01-IS1FT-GRP-OliveFoodBot into the new local git repository for your Heroku app.
- Commit and push to Heroku master.

- Alternatively, you could fork the Github repository https://github.com/eleow/IRS-CS-2019-07-01-IS1FT-GRP-OliveFoodBot to your own repository and connect Heroku with your Github repository.

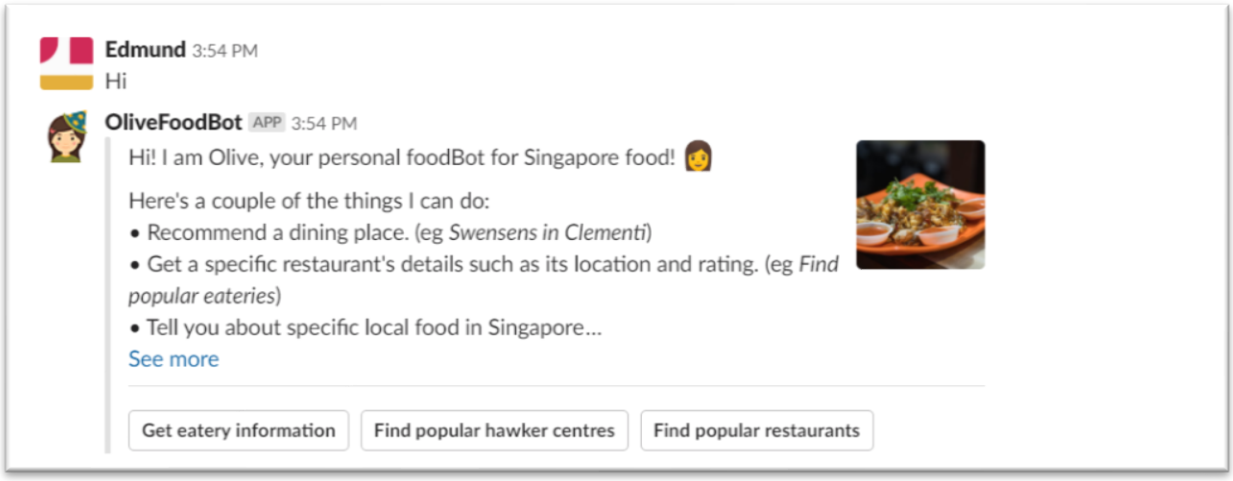


- You could optionally enable automatic deployment. Then whenever your Github repository has new commits, Heroku would build and deploy the updated app automatically.
- Otherwise, just use the Manual deploy button

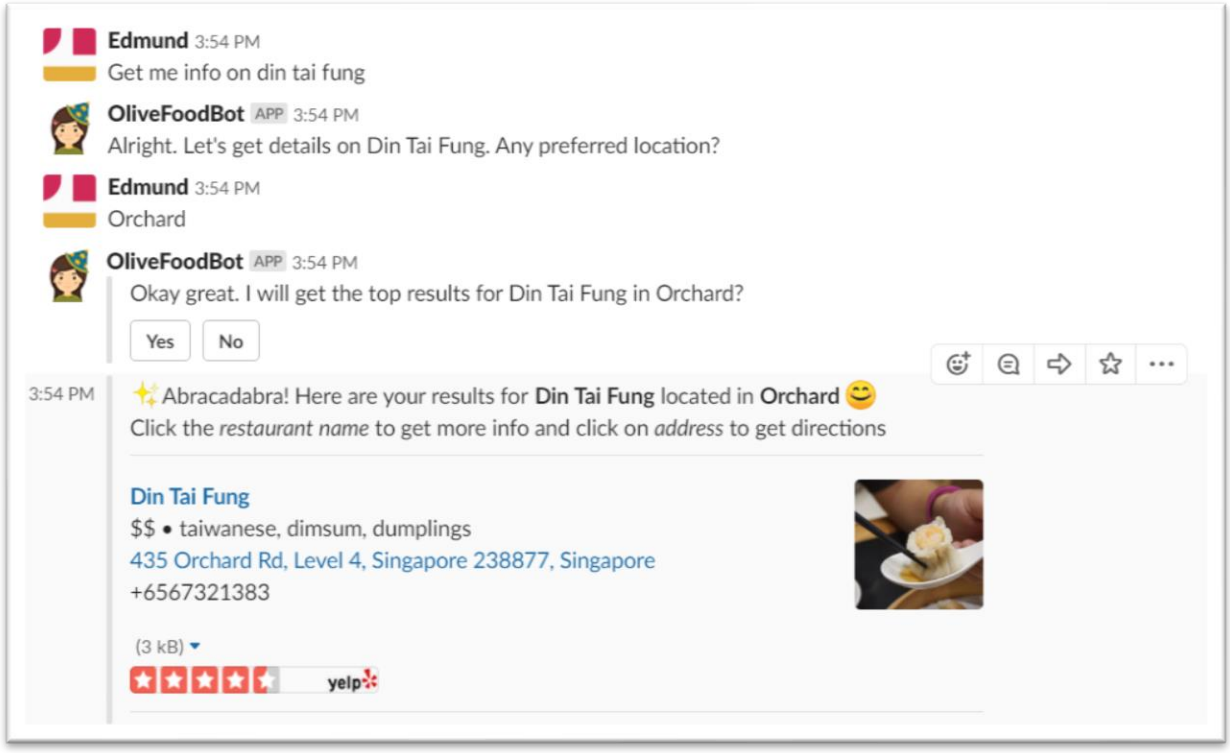


Test Scenarios

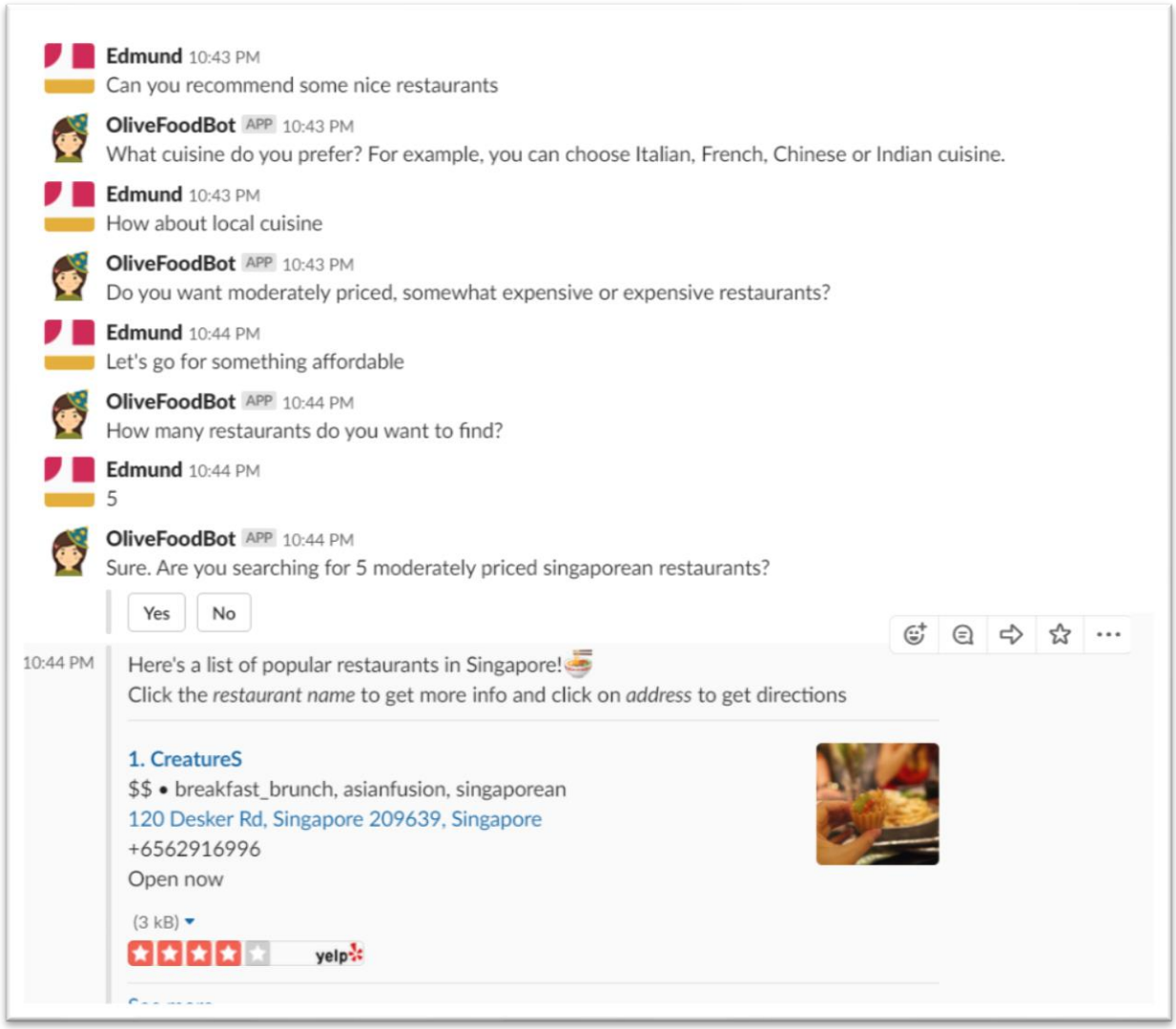
Welcome



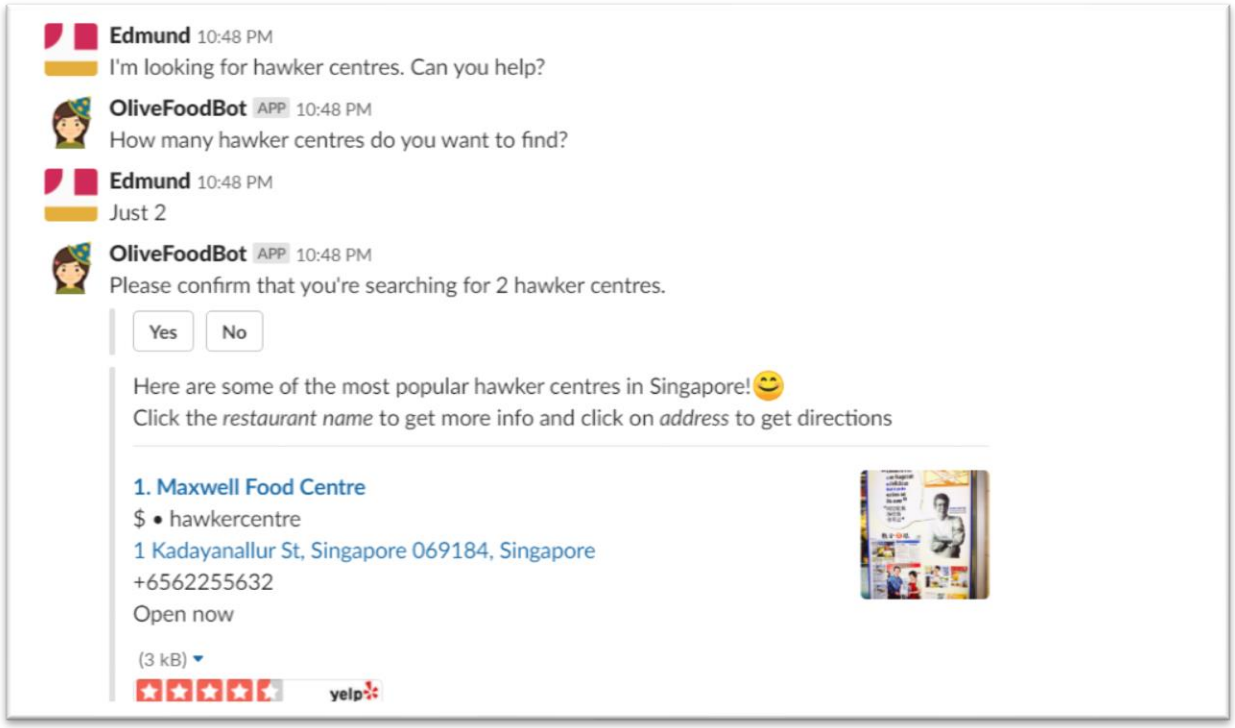
Get Eatery Information



Find Popular Restaurants



Find Popular Hawker Centres



What is XXX