

AI Chatbot Workshop

By GS APWE

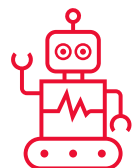


Agenda



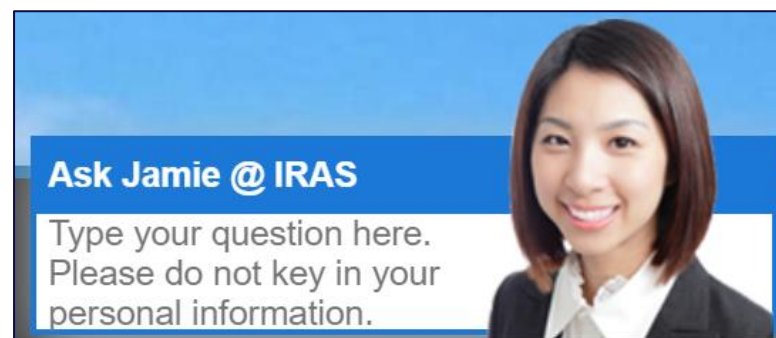
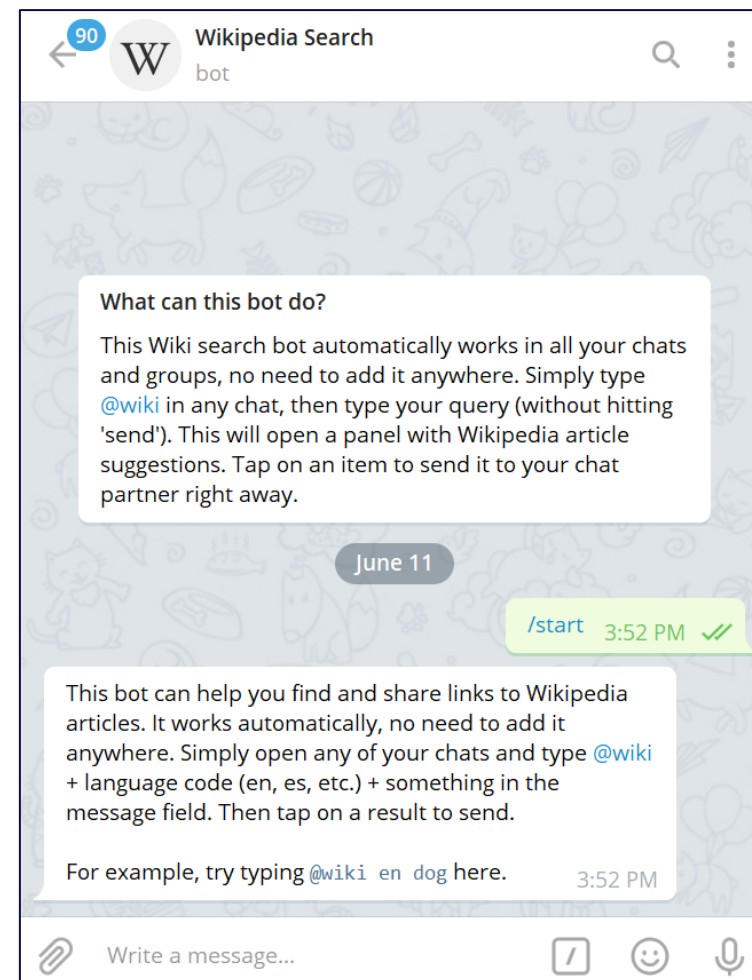
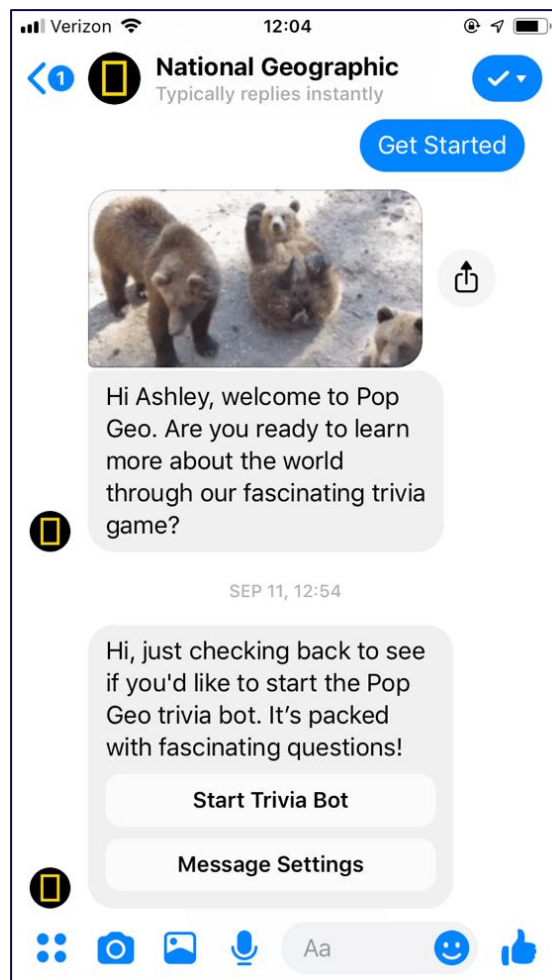
Pre-requisite: Install Telegram, create a Telegram bot token (and keep it as a secret!)

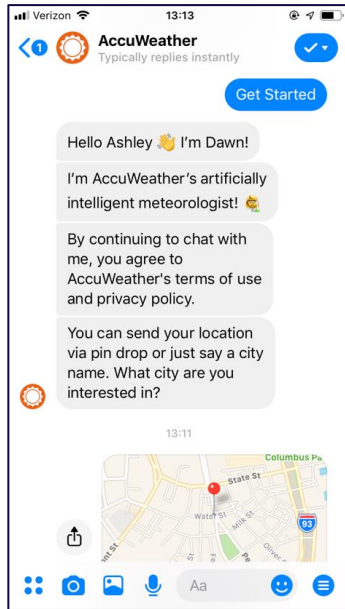
1. Run @apwe_bot on Spyder or Jupyter Notebook
2. Learn about chatbot and Telegram API
3. Modify @apwe_bot to send a new reply to the user



About chatbot

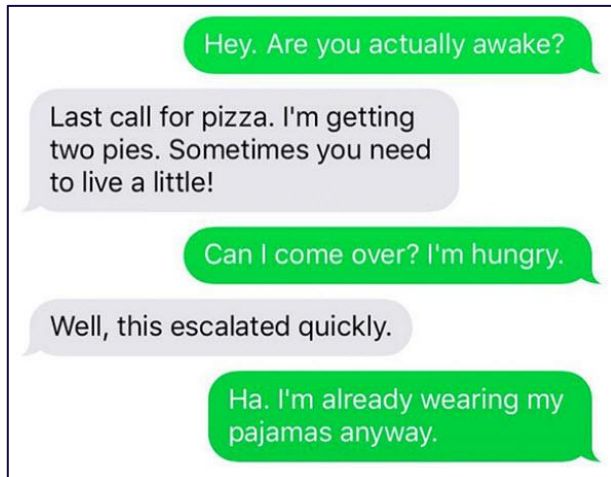
A script that keeps running
and processes inputs from
users to return outputs





Command

Have a list of commands that the bot can understand (OCBC, DBS, IRAS, etc)



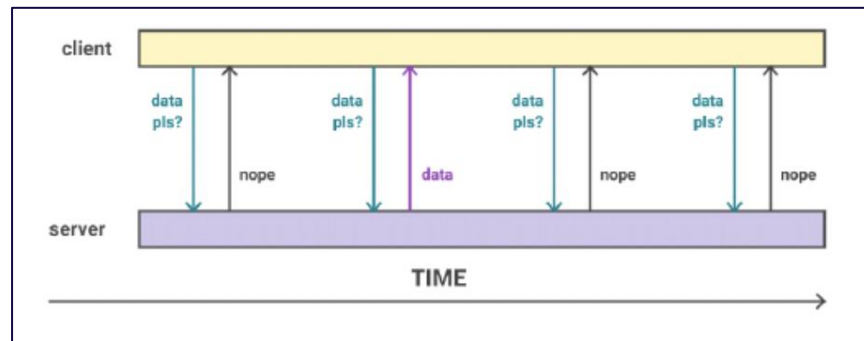
Natural Language

User can type in any texts

<http://insomnobot3000.com/> by Casper

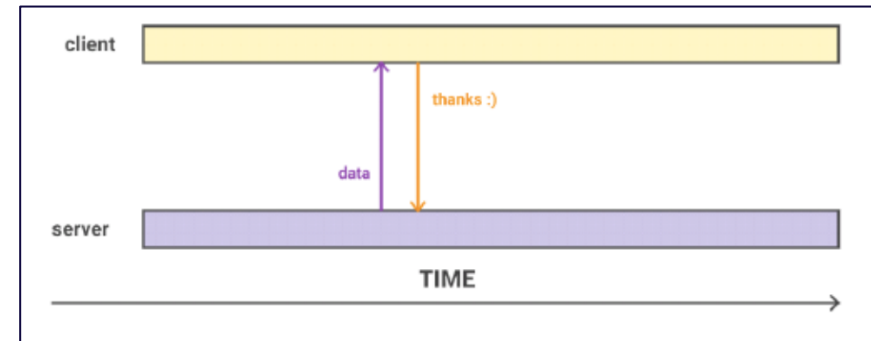
Types of chatbot

How can your bot receive messages?



Polling

Repeatedly send requests to the server to get new data. If there's new data, it's sent back; otherwise, nothing is returned



Webhook (not covered)

Server sends data to the bot as soon as it receives new data, and the bot must have a *listener* to listen to new data from the server

Telegram API

(Application Programming Interface)

Simplest way to interact with the bot is through web browser. By visiting different URLs like below, we send different commands to the bot. There are two main commands that a bot needs:

Get messages sent to your bot

<https://api.telegram.org/bot<your-telegram-token>/getUpdates>

Indicate that we
want to interact
with Telegram API

Specify the bot that we
want to send the
command to

Specify the
command we
want to send

Send a reply to the user from your bot

https://api.telegram.org/bot<your-telegram-token>?chat_id=<chat-id>&text=helloWorld

Telegram API

```
get_updates(offset=None, limit=100, timeout=0, read_latency=2.0, allowed_updates=None, **kwargs)
```

Use this method to receive incoming updates using long polling.

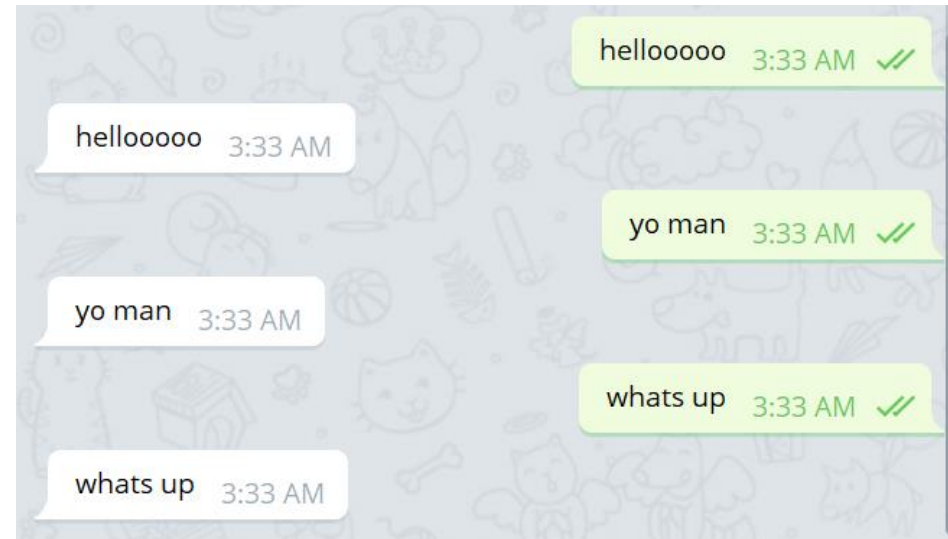
https://python-telegram-bot.readthedocs.io/en/stable/telegram.bot.html#telegram.Bot.get_updates

```
send_message(chat_id, text, parse_mode=None, disable_web_page_preview=None,  
disable_notification=False, reply_to_message_id=None, reply_markup=None, timeout=None, **kwargs)
```

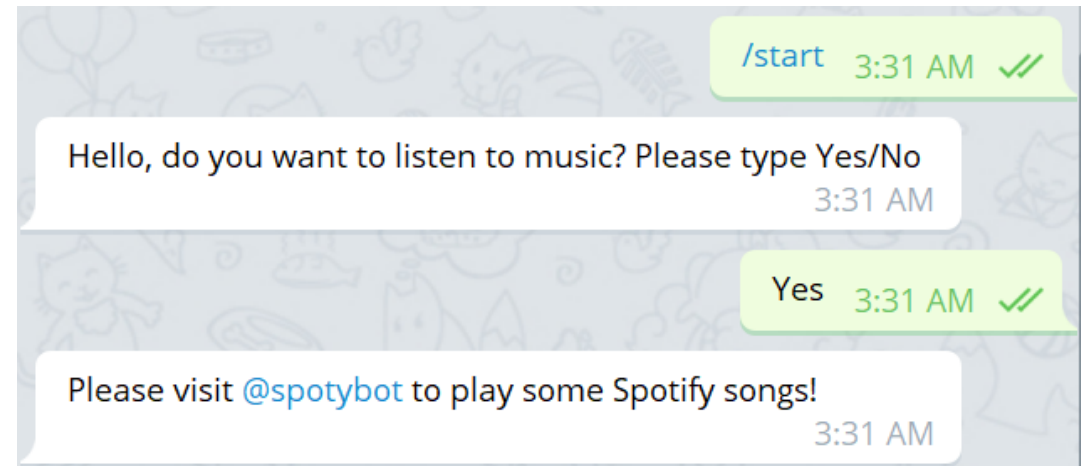
Use this method to send text messages.

https://python-telegram-bot.readthedocs.io/en/stable/telegram.bot.html#telegram.Bot.send_message

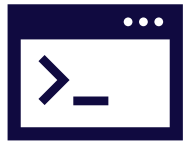
Improve @apwe_bot



Currently, the bot just echoes your message.
Let's make it friendlier!



Recommend @movieS4Bot when you reply
"No" or recommend @spotybot when "Yes"



Time for hands-on practice!

Public APIs



<https://www.openbrewerydb.org/>



<https://developer.spotify.com/documentation/web-api/quick-start/>



<https://data.gov.sg/developer>



<https://developer.accuweather.com/apis>



<https://developers.facebook.com/docs/instagram-api/>



<https://developers.google.com/apis-explorer>

Try out some bots in Telegram

@gamebot - play games with friends

@spotybot - play Spotify music

@AlertBot - reminder bot

@movieS4Bot - find movie recommendations

@KelJourneyBot - estimate waiting time at bus station

Thank you for coming!