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FAQ CHATBOT using nltk

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About

An Covid19 FAQ (Frequently Asked Questions) ChatBot is a type of internet bot or software application that is beneficial for answering some of the most frequently asked questions related to covid19. This FAQ bots helps the customer's be aware about the pandemic.

Mission and Vision

Never in the history of public health, a pandemic of a disease threatened the humanity as COVID-19, technical name of a newly identified coronavirus, has inflicted. The disease is caused by the SARS-coronavirus-2, a virus primarily zoonotic and was not found in humans. WHO has declared COVID-19 a global pandemic and a public health emergency. The spread of corona epidemic is unprecedented and has reached 199 countries and territories around the world (and the cruise ship Diamond Princess harbored in Yokohama, Japan), and has affected over 556,141 people, testing positive for coronavirus. The death toll has reached 25,237 (Worldometer, March 27, 2020; 14.36 GMT). Pandemic has spread with a high velocity across the globe within a short period of time. Unlike SARS (2003) and MERS (2012), the case fatality rate is higher at 2–3%.Inorder to educate the public about this serious threat, this chatbot is manufactured to create an awareness amongst the public.

Concept

This is basically made with NLTK in python with Term Frequency-Inverse Document(TF-IDF) and cosine similarity

Implementation

The packages that are used are:

- NLTK
- Scikit-learn

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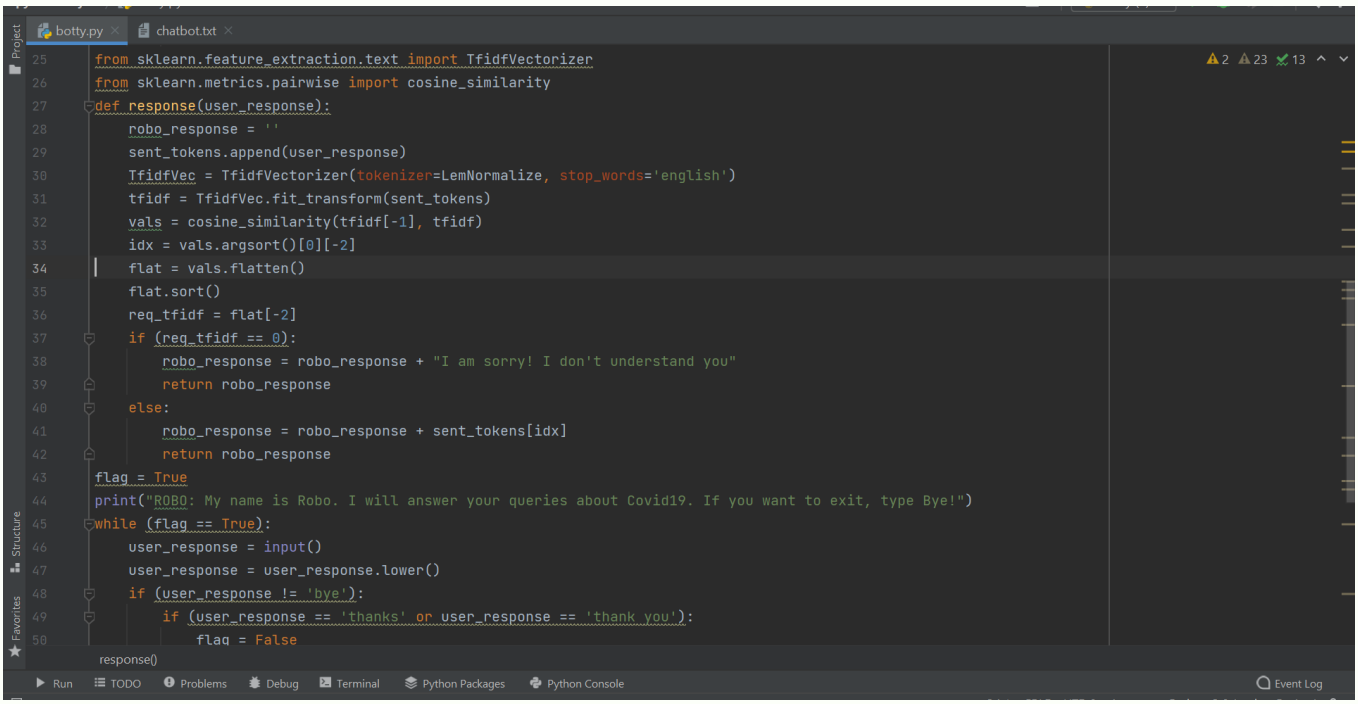
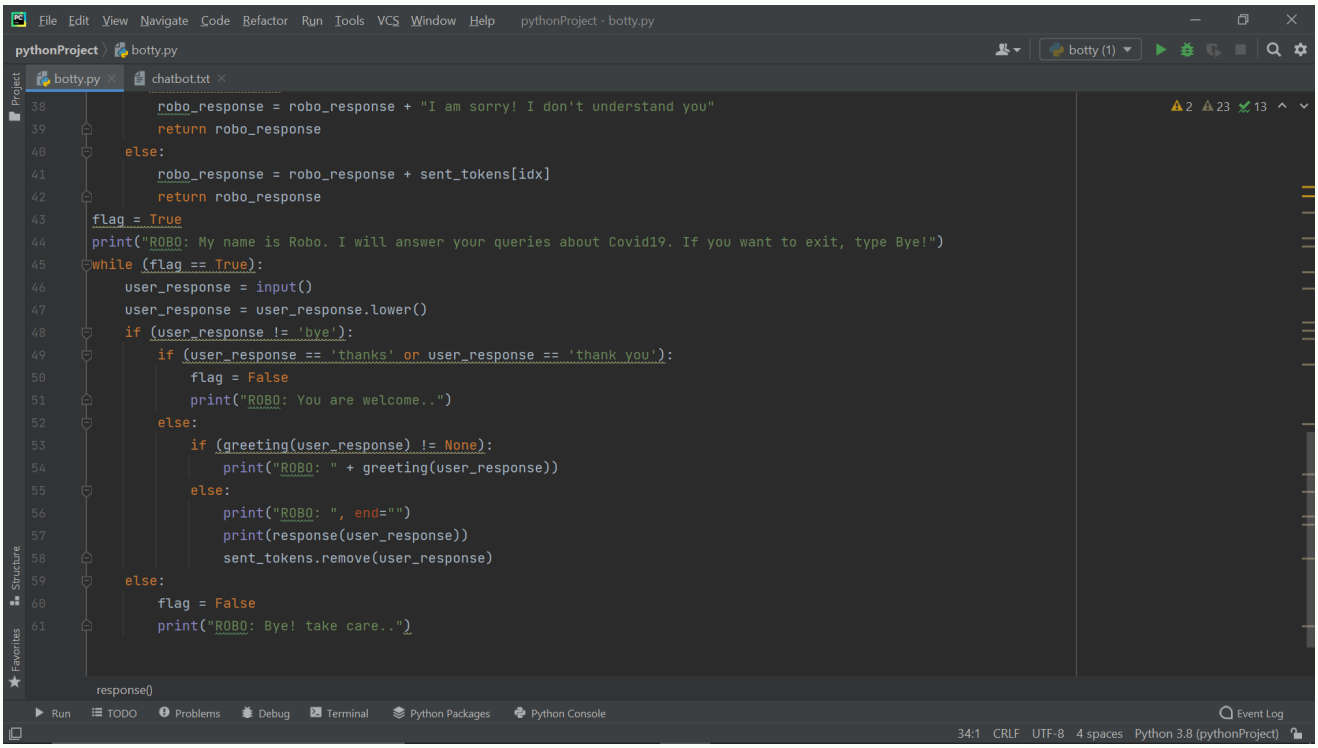
TF-IDF

The frequency of the word is rescaled by how often they appear in all the documents. This is called Term-Frequency-Inverse Document Frequency or TF-IDF

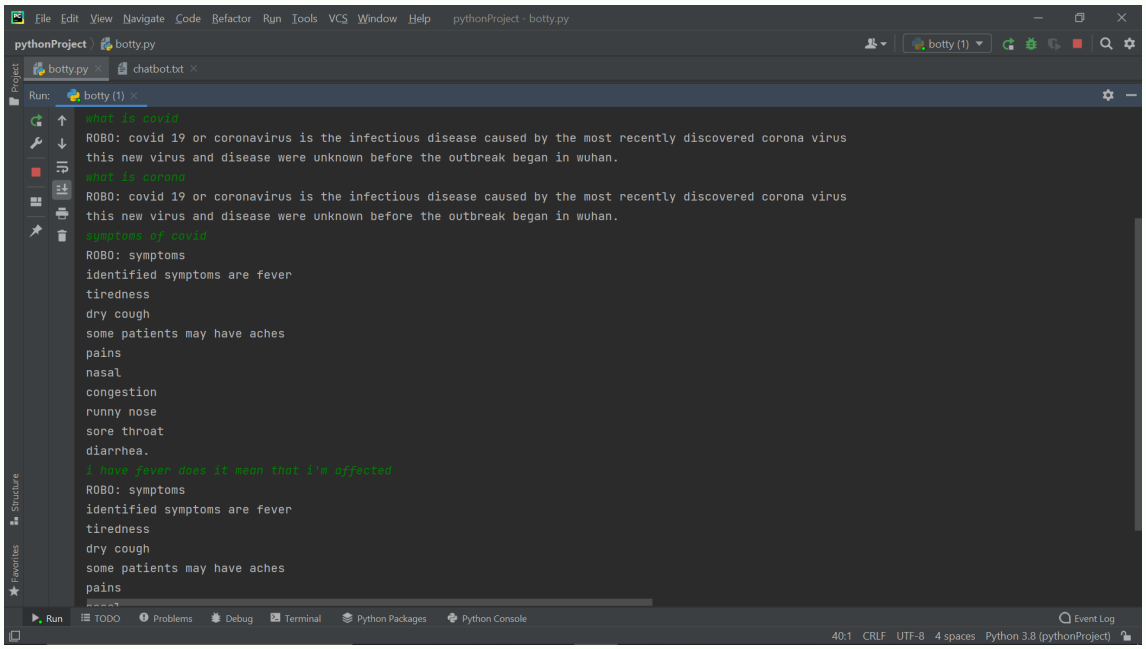
Term Frequency is a scoring of the frequency of the word in the current document. TF = Number of times the term 't' appears in a document.

Inverse Document Frequency is a scoring of how rare the word is across the documents.




File Edit View Navigate Code Refactor Run Tools VCS Window Help pythonProject - botty.py
pythonProject botty.py
botty (1)
botty.py chatbot.txt
robo_response = robo_response + "I am sorry! I don't understand you"
return robo_response
else:
robo_response = robo_response + sent_tokens[idx]
return robo_response
flag = True
print("ROBO: My name is Robo. I will answer your queries about Covid19. If you want to exit, type Bye!")
while (flag == True):
user_response = input()
user_response = user_response.lower()
if (user_response != 'bye'):
if (user_response == 'thanks' or user_response == 'thank you'):
flag = False
print("ROBO: You are welcome..")
else:
if (greeting(user_response) != None):
print("ROBO: " + greeting(user_response))
else:
print("ROBO: ", end="")
print(response(user_response))
sent_tokens.remove(user_response)
else:
flag = False
print("ROBO: Bye! take care..")
response()
Run TODO Problems Debug Terminal Python Packages Python Console Event Log
34:1 CRLF UTF-8 4 spaces Python 3.8 (pythonProject)

Output


what is covid
ROBO: covid 19 or coronavirus is the infectious disease caused by the most recently discovered corona virus
this new virus and disease were unknown before the outbreak began in wuhan.
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ROBO: covid 19 or coronavirus is the infectious disease caused by the most recently discovered corona virus
this new virus and disease were unknown before the outbreak began in wuhan.
symptoms of covid
ROBO: symptoms
identified symptoms are fever
tiredness
dry cough
some patients may have aches
pains
nasal
congestion
runny nose
sore throat
diarrhea.
i have fever does it mean that i'm affected
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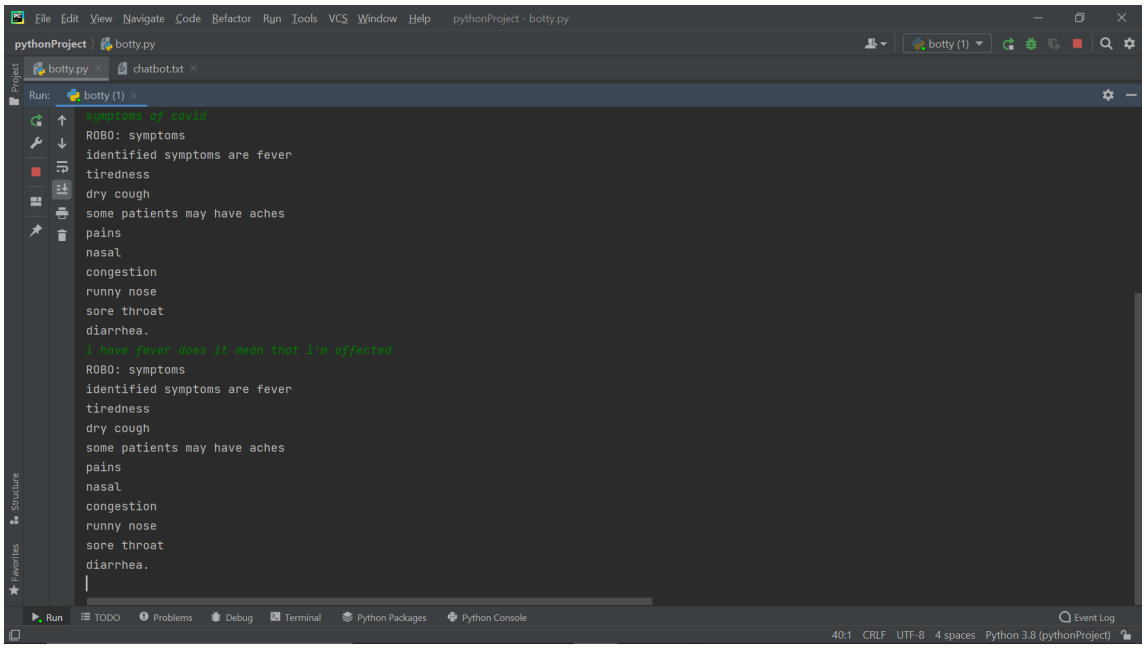
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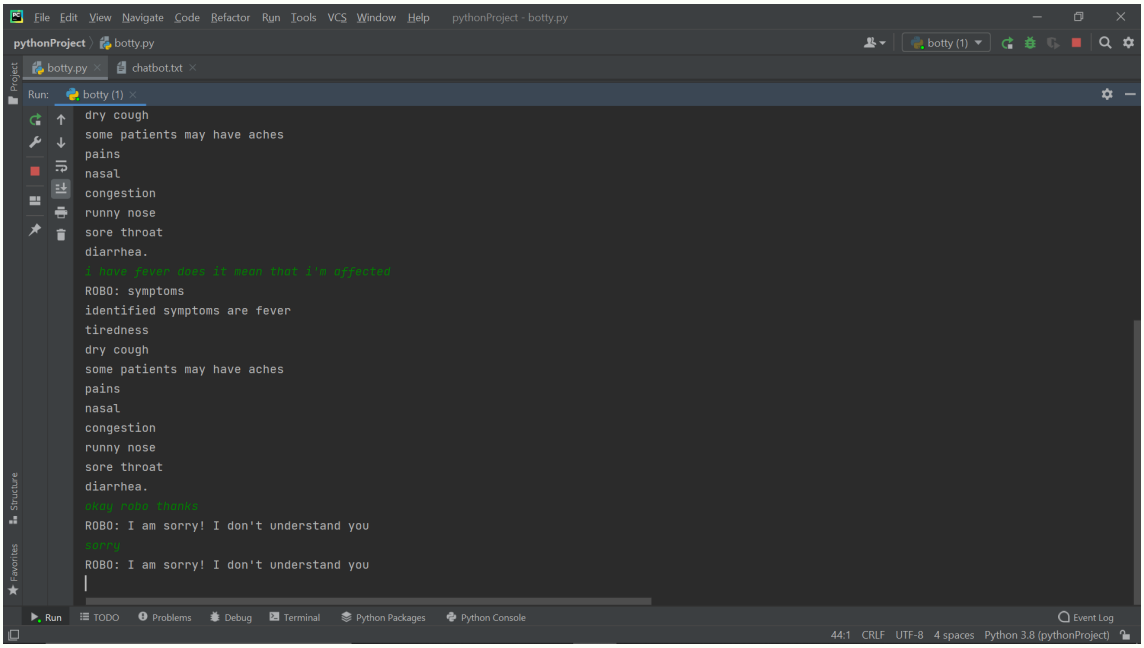

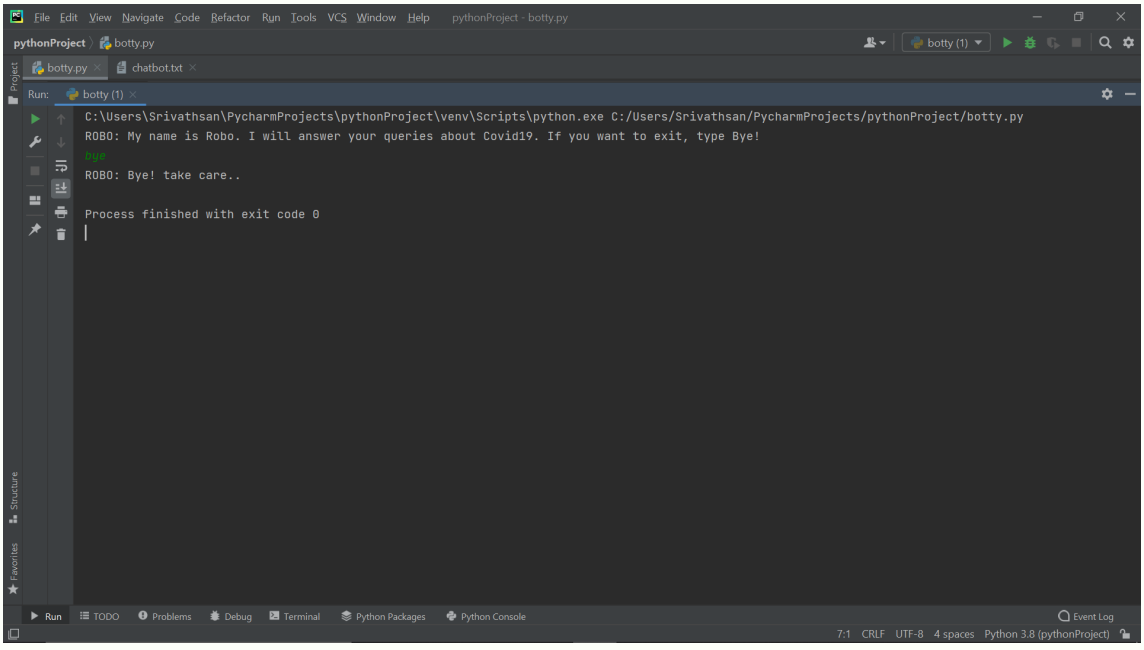

Thus you can see our chatbot working !!