ıck your progress on the go! Install App

Back

Congrats Daniel! This project has been marked as completed.

Project Rating

★★★★☆

Teacher's Comment

"Good"

-

Was this helpful?

PRO-C120: CUSTOMER SUPPORT BOT

Completed

In Class 120, We Learned How To Train Your Chatbot To Get Responses From It. In This Project, We Will Create A Customer Support Chatbot.

Goal of the Project:

In class 120, we learned how to train your chatbot to get responses from it. In this project, we will create a customer support chatbot.

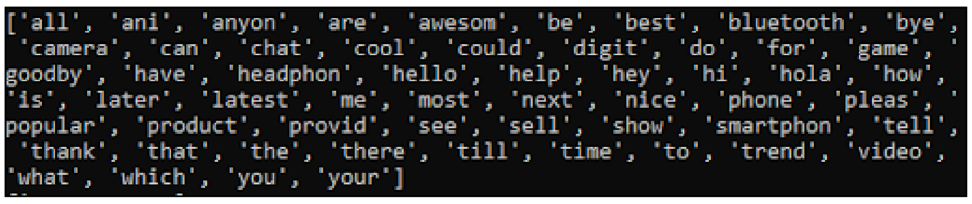
Story:

Alex is very excited with the fact that he will be able to make a chatbot for his website. After creating the training dataset for the chatbot, it's time for him to train his chatbot on the dataset and pull out predictions or responses from it. Now, he already has everything needed to train the model, but he needs your help to get input from the user and responses from the chatbot.

Can you help him to get a response from his chatbot and display it in a Human Readable manner?

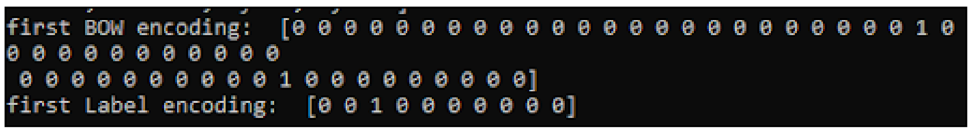
Project Template Output

1. List of stemmed words from our dataset.



```
['all', 'ani', 'anyon', 'are', 'awesom', 'be', 'best', 'bluetooth', 'bye',
 'camera', 'can', 'chat', 'cool', 'could', 'digit', 'do', 'for', 'game', '
goodby', 'have', 'headphon', 'hello', 'help', 'hey', 'hi', 'hola', 'how',
'is', 'later', 'latest', 'me', 'most', 'next', 'nice', 'phone', 'pleas', '
popular', 'product', 'provid', 'see', 'sell', 'show', 'smartphon', 'tell',
 'thank', 'that', 'the', 'there', 'till', 'time', 'to', 'trend', 'video',
'what', 'which', 'you', 'your']
```

2. Bag of Word encoding for our First pattern and First tag.



```
first BOW encoding:  [0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0
0 0 0 0 0 0 0 0 0 0 0
 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0]
first Label encoding:  [0 0 1 0 0 0 0 0 0 0]
```

Expected Output

Community Link

Publish to Community

Edit Your Project

Last Submitted

Previous Submissions

16th Feb 2024 Open Link

Start Project

Submit Your Project

Learn how to submit your project

Paste your project URL

Submit Project

Class Summary

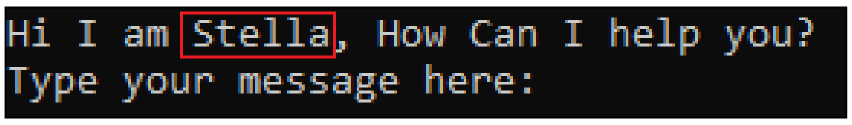
This project is based on your last class PRO-C120

View Class Summary

□ Ask a doubt to your tea

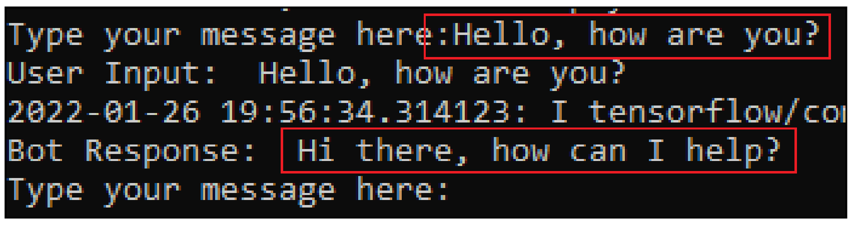
□ HELP

1. As soon as you Run, your project, your chatbot “Stella” is ready to help you!



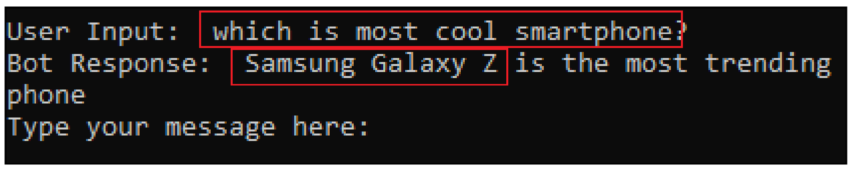
```
Hi I am Stella, How Can I help you?
Type your message here:
```

2. You can greet Stella, with a ‘Hello’ message.



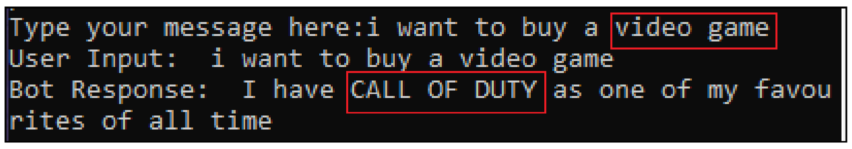
```
Type your message here:Hello, how are you?
User Input:  Hello, how are you?
2022-01-26 19:56:34.314123: I tensorflow/co
Bot Response:  Hi there, how can I help?
Type your message here:
```

3. You can ask about Smartphones.



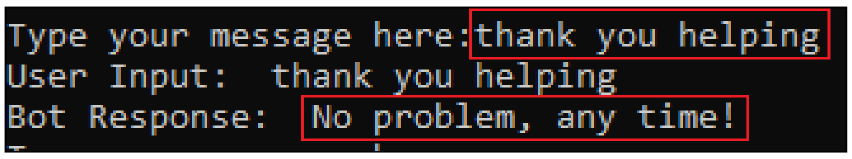
```
User Input:  which is most cool smartphone?
Bot Response:  Samsung Galaxy Z is the most trending
phone
Type your message here:
```

4. You can talk about Video Games.



```
Type your message here:i want to buy a video game
User Input:  i want to buy a video game
Bot Response:  I have CALL OF DUTY as one of my favou
rites of all time
```

5. You can end the conversation with a ‘Thank you’ message!

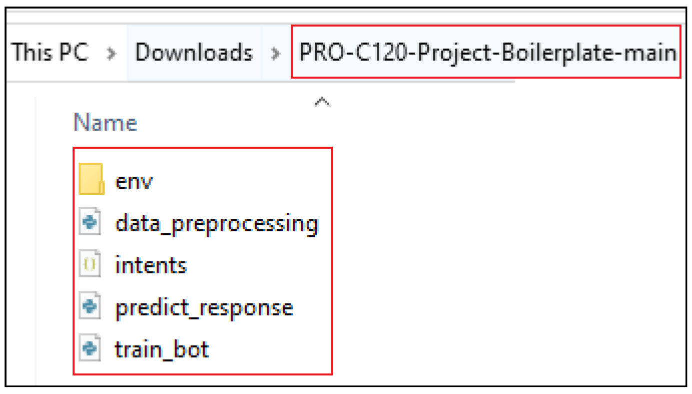


```
Type your message here:thank you helping
User Input:  thank you helping
Bot Response:  No problem, any time!
```

*This is just for your reference. We expect you to apply your own creativity to the project.

Getting Started:

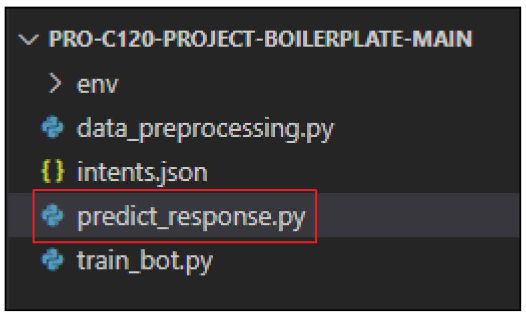
1. Open the Boilerplate link and download all the files within a **new folder** on your system.
2. Open the **command prompt**, traverse to that folder and create a python virtual environment inside it in such a way, so that the **virtual environment**, **intents.json and data_preprocessing.py** files are within the same folder.



This PC > Downloads > PRO-C120-Project-Boilerplate-main

Name
- env
- data_preprocessing
- intents
- predict_response
- train_bot

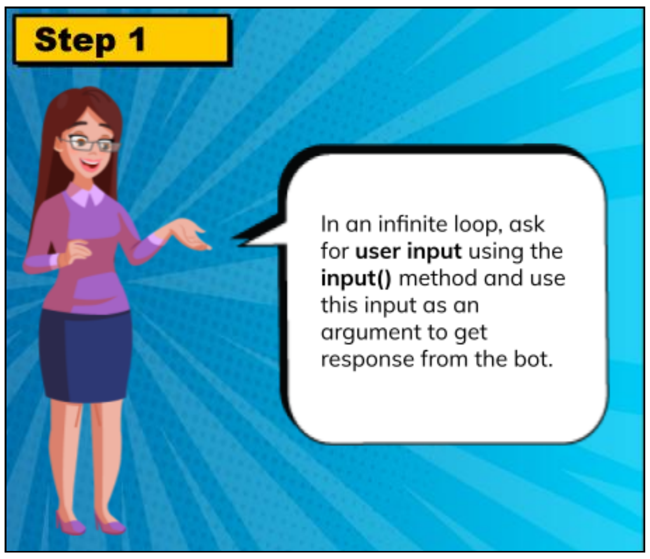
3. Activate the virtual environment and install the **nltk and Tensorflow** library in it, using **pip install nltk** and **pip install tensorflow==2.5.0.**
4. Open the **folder** in Visual Studio code, and click on the **data_preprocessing.py** file.

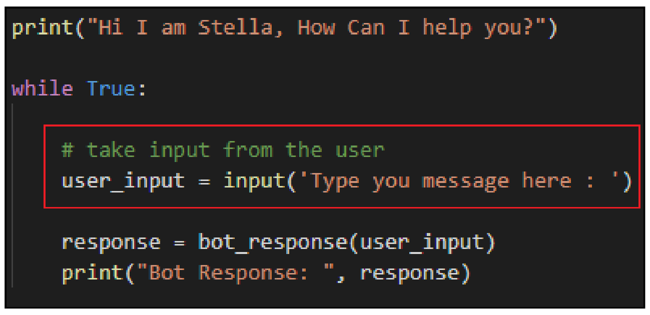


PRO-C120-PROJECT-BOILERPLATE-MAIN
- env
- data_preprocessing.py
- intents.json
- predict_response.py
- train_bot.py

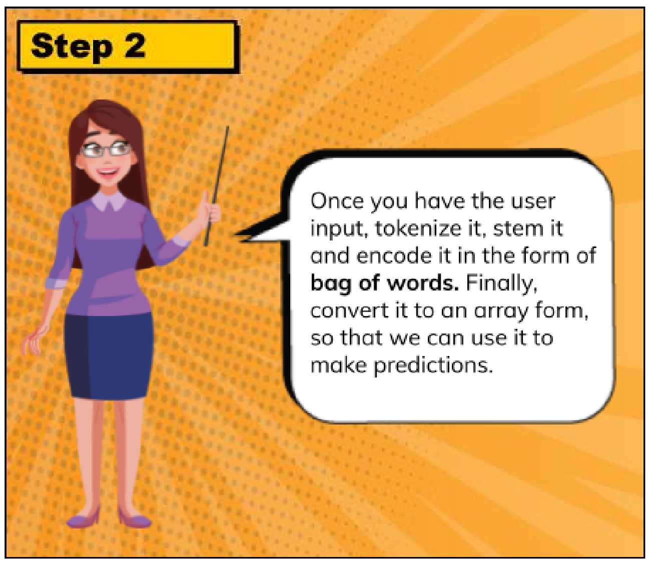
Specific Tasks to complete the Project:

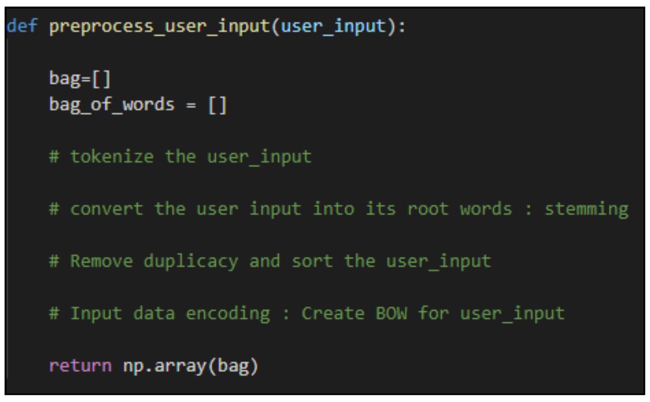
HELP


Step 1
In an infinite loop, ask for **user input** using the **input()** method and use this input as an argument to get response from the bot.

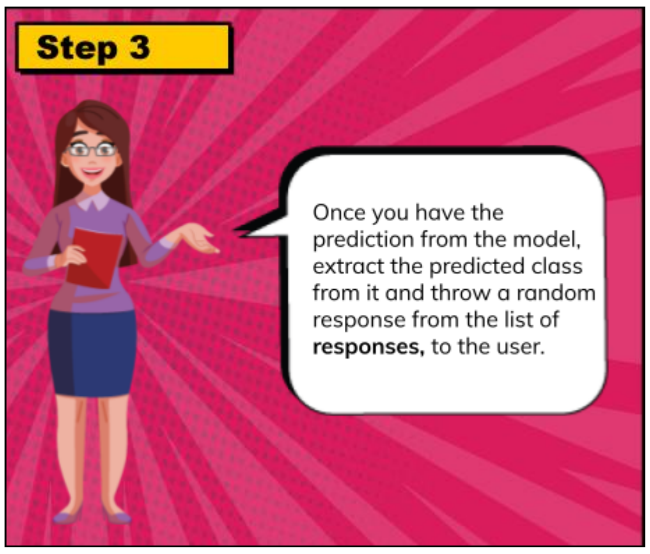


```
print("Hi I am Stella, How Can I help you?")

while True:

    # take input from the user
    user_input = input('Type you message here : ')

    response = bot_response(user_input)
    print("Bot Response: ", response)
```

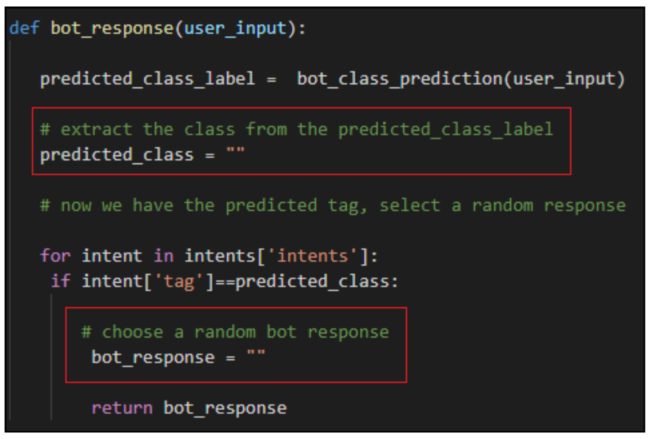

Step 2
Once you have the user input, tokenize it, stem it and encode it in the form of **bag of words.** Finally, convert it to an array form, so that we can use it to make predictions.



```
def preprocess_user_input(user_input):

    bag=[]
    bag_of_words = []

    # tokenize the user_input

    # convert the user input into its root words : stemming

    # Remove duplicacy and sort the user_input

    # Input data encoding : Create BOW for user_input

    return np.array(bag)
```


Step 3
Once you have the prediction from the model, extract the predicted class from it and throw a random response from the list of **responses,** to the user.

□ HELP



```
def bot_response(user_input):

   predicted_class_label =  bot_class_prediction(user_input)

   # extract the class from the predicted_class_label
   predicted_class = ""

   # now we have the predicted tag, select a random response

   for intent in intents['intents']:
    if intent['tag']==predicted_class:

       # choose a random bot response
       bot_response = ""

       return bot_response
```

Step 4
Save, Compile and Run your project so that you can talk with your chatbot

Submitting the Project:

1. **SAVE** all the changes made to the project.
2. Click on **"Run"** once to check if it is working.
3. Open GitHub and create a repository named **Project120**.
4. Upload files and click **Commit Changes**.
5. Copy the link and submit it in the Student Dashboard Projects panel against the correct class number.

Hints:

1. To talk with your chatbot, run **data_preprocessing.py** file first, then **train_bot.py** and finally **predict_response.py** file. **[Hint for Step 4]**

□ HELP