

Packages that used in the program

- **json**=to work with the json file
- **numpy**=to working with arrays
- **nltk**=use for text preprocessing(like stemming, tokenization)
- **torch**= this contains data structures for multi-dimensional tensors and defines mathematical operations over these tensors
- **random**=use for random selection of items(in the code it use for randomly select a chat bot response)

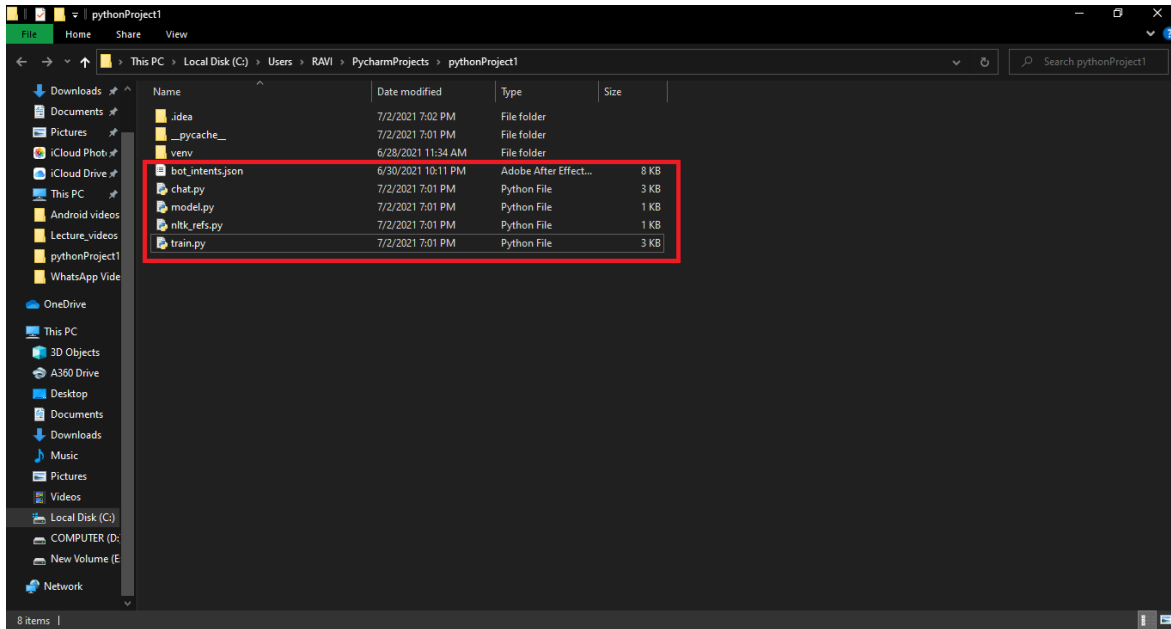
*make sure to install(if not installed before) above mentioned packages in the **python IDE** before running the program

Packages installing commands

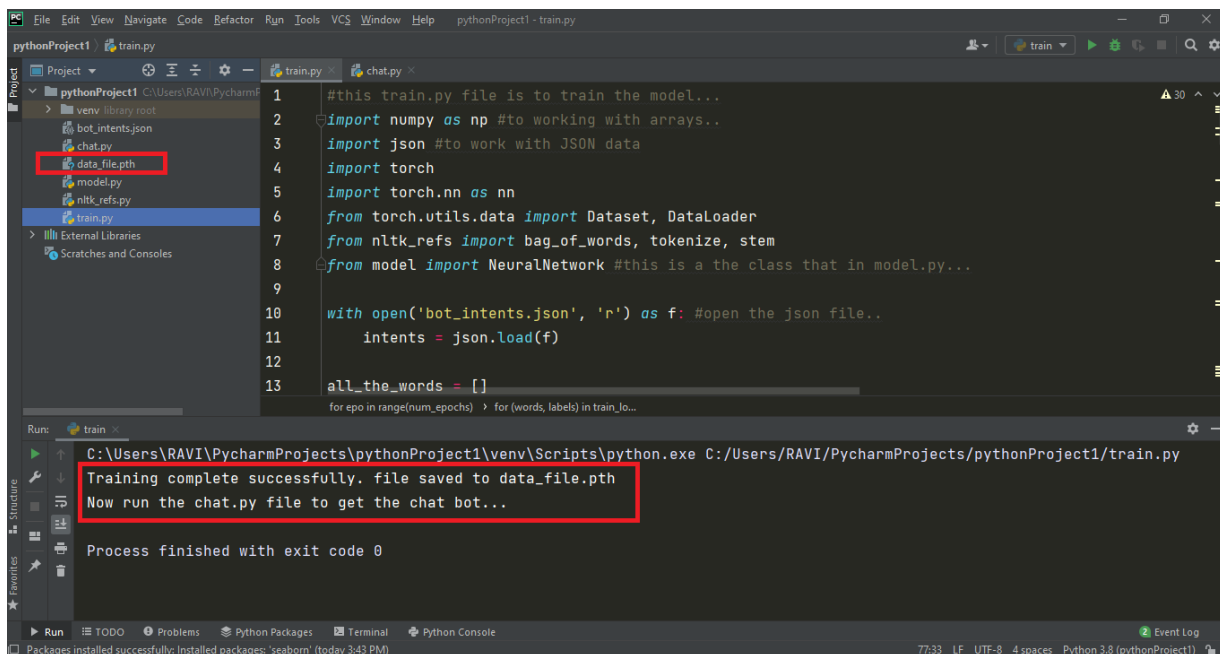
- pip install json
- pip install nltk
- pip install torch
- pip install random
- pip install numpy

Steps to working with the Chatbot

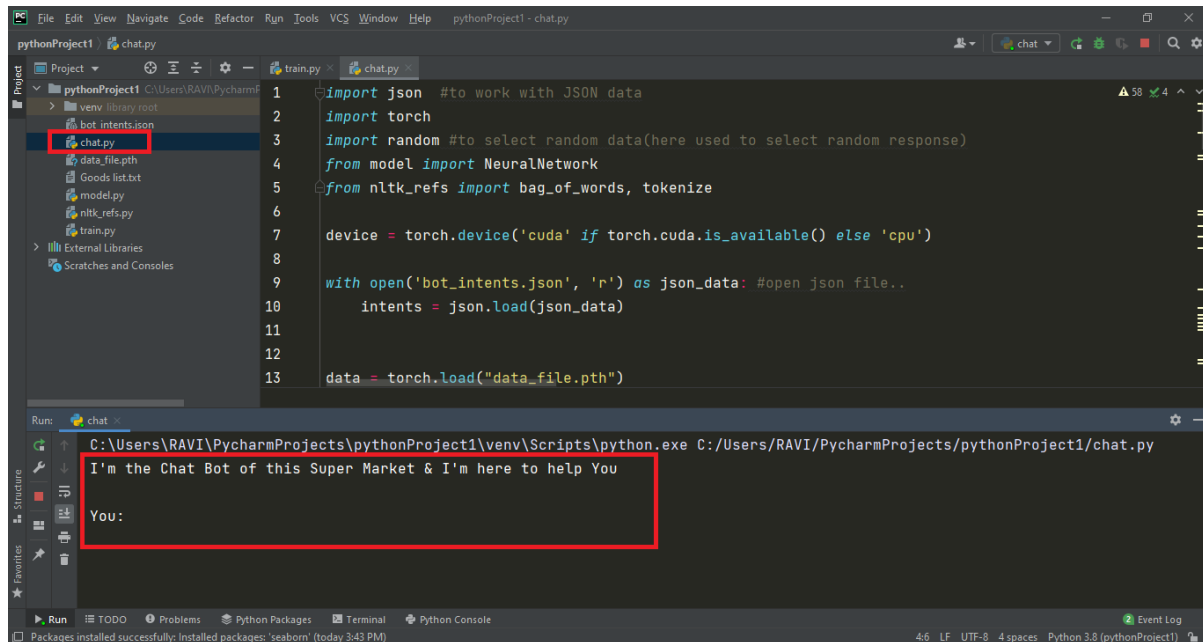
- 1st add the project files to your **project folder** as below,



2. Run the “**train.py**” file. After few seconds(nearly 30s) , it will show output like below figure, Also it will be generated and appeared “**data_file.pth**” file inside the project folder.



3. Finally run the “**chat.py**” file, after it will be given an output as below, then it can be chat with the chatbot, the chat bot will exit when the user type “**goodbye**” tag related thing or by just typing “**exit**”. And after that it will be generate a text file(**Goods_list.txt**) contains the selected goods and there corresponding shelf numbers.



The screenshot shows the PyCharm IDE with the `chat.py` file open. The file contains the following code:

```
1 import json #to work with JSON data
2 import torch
3 import random #to select random data(here used to select random response)
4 from model import NeuralNetwork
5 from nltk_refs import bag_of_words, tokenize
6
7 device = torch.device('cuda' if torch.cuda.is_available() else 'cpu')
8
9 with open('bot_intents.json', 'r') as json_data: #open json file..
10     intents = json.load(json_data)
11
12
13 data = torch.load("data_file.pth")
```

The Run console at the bottom shows the output of the program:

```
C:\Users\RAVI\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/RAVI/PycharmProjects/pythonProject1/chat.py
I'm the Chat Bot of this Super Market & I'm here to help You
You:
```

Further information

- In this chat bot it's only available to chat sentences related to greeting ,goodbye, thanks, buy, payment and the goods related names. If user ask not related thing it will response with “Sorry!! I didn't understand”
- The bot will response with the corresponding shelf numbers, when the user asks for goods
- The bot will exit when the user type goodbye tag related thing or by just typing “exit”. After that it will be generated a text file(**Goods_list.txt**) containing the selected goods and there corresponding shelf numbers in the project folder location

The final selected good list was depend on the user entered goods names, so it will be better if the user directly enter the good name only(for better final list)