

Team MegaMinds Final Submission

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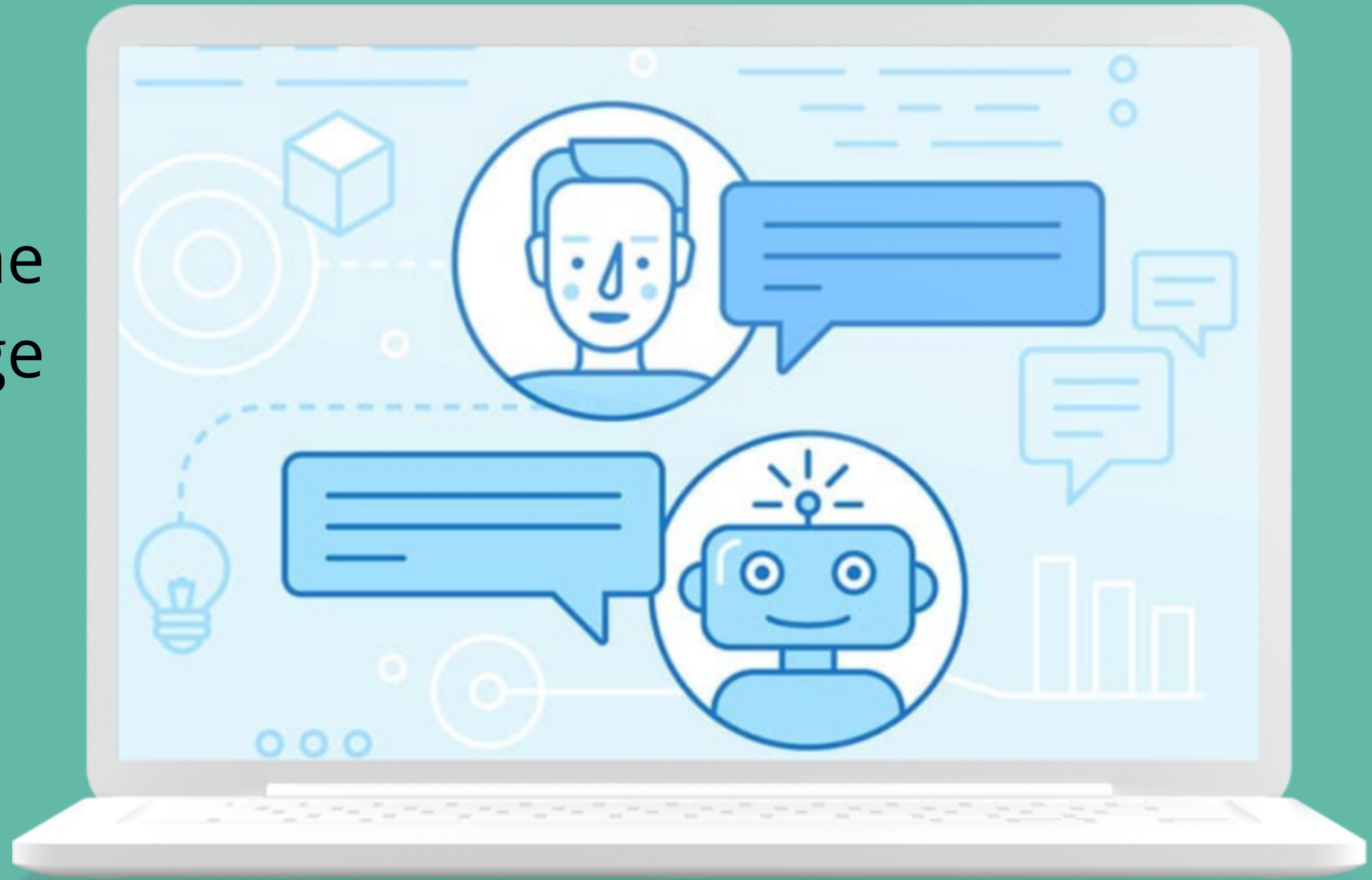
ChatBot



Our project idea is to design a multilingual chatbot that can guide students and Parents in their college admission process.

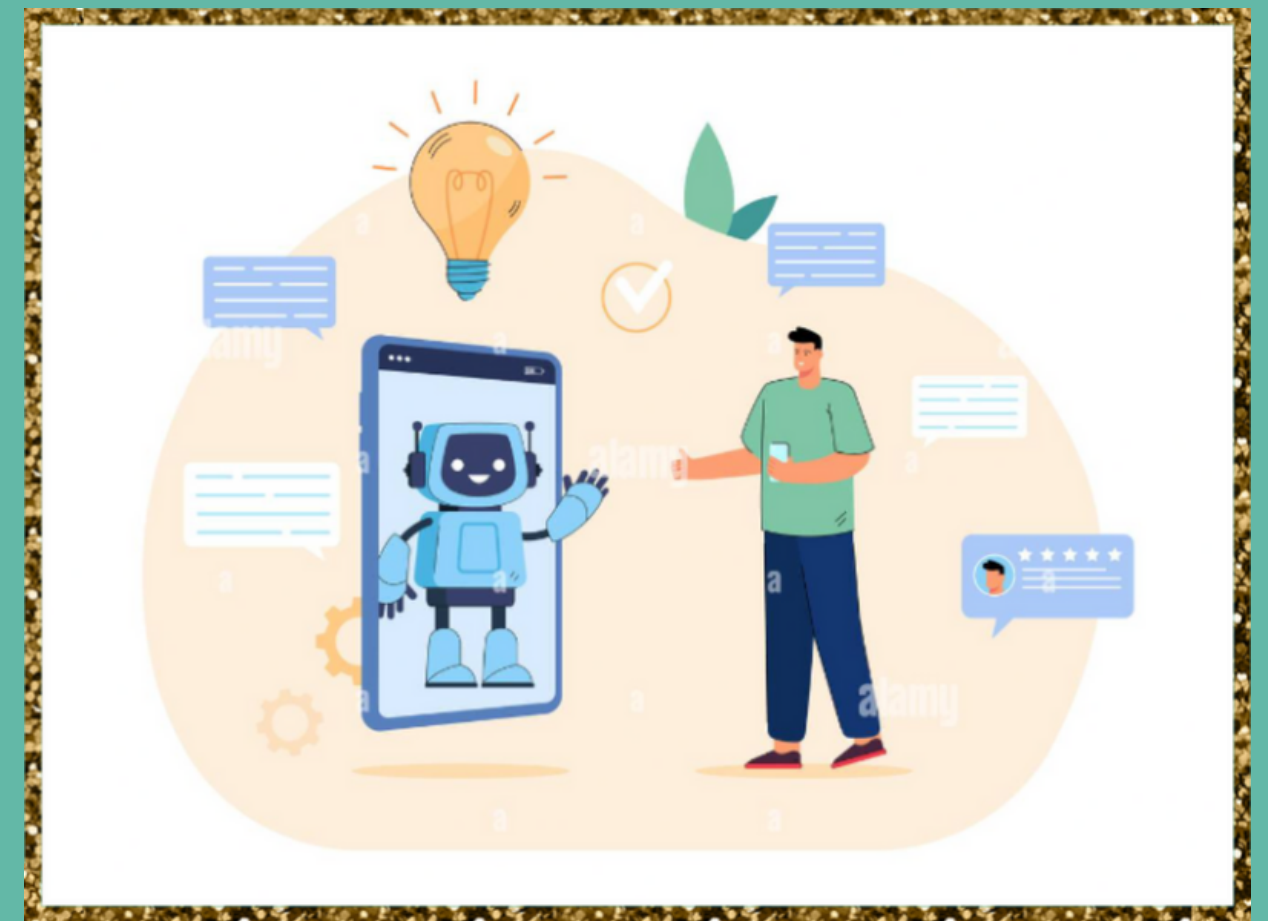
About our Project

In our project, we are creating a customizable chatbot which will receive the text message in any language and reply to it in the language the user typed it.



Software we used for Implementing ChatBot

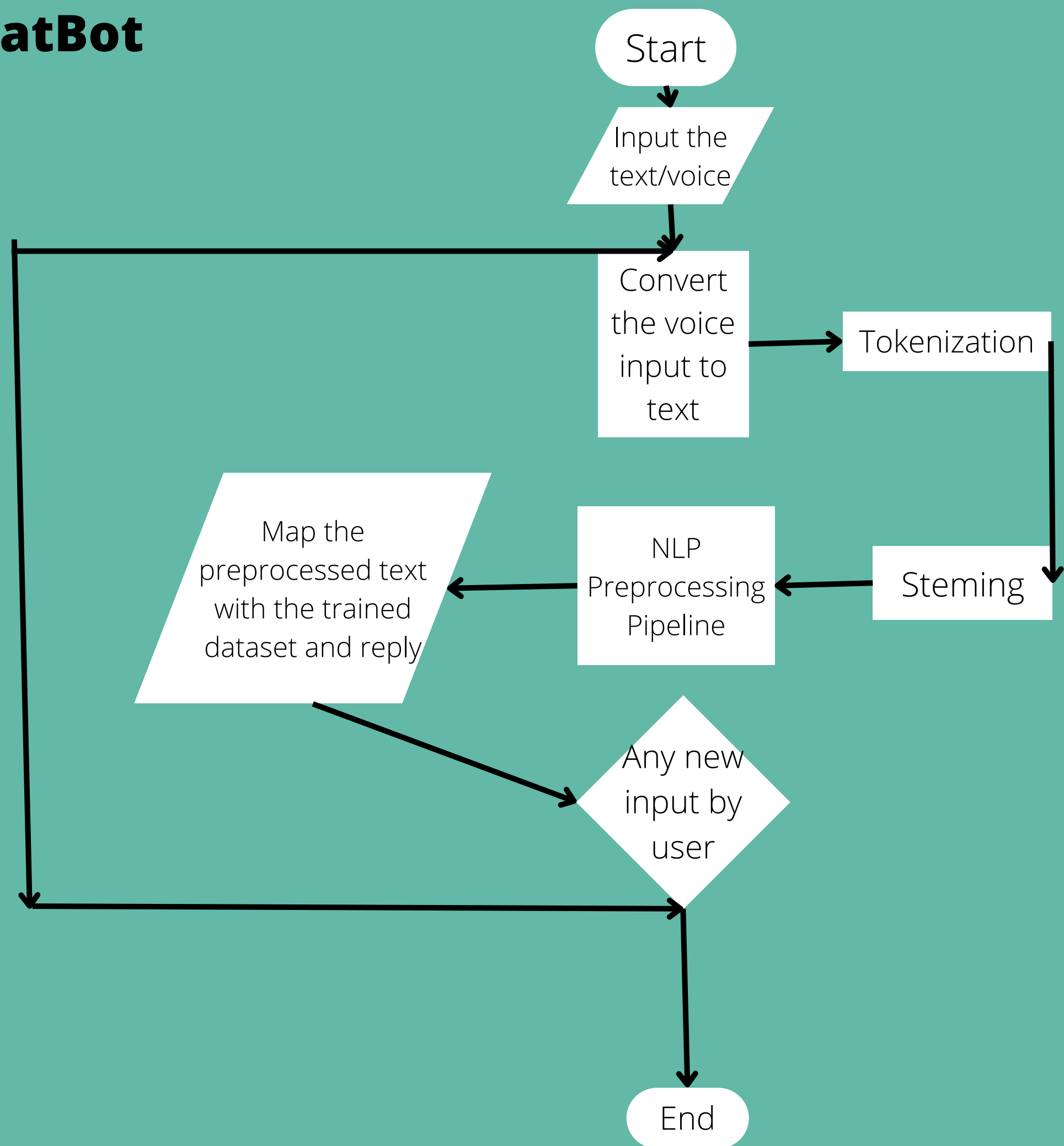
We used Anaconda, Pytorch, NLTK for the coding part of the Chatbot which will be used to answer the queries of user. This chatbot will be multi linguistic.



How we are Implementing

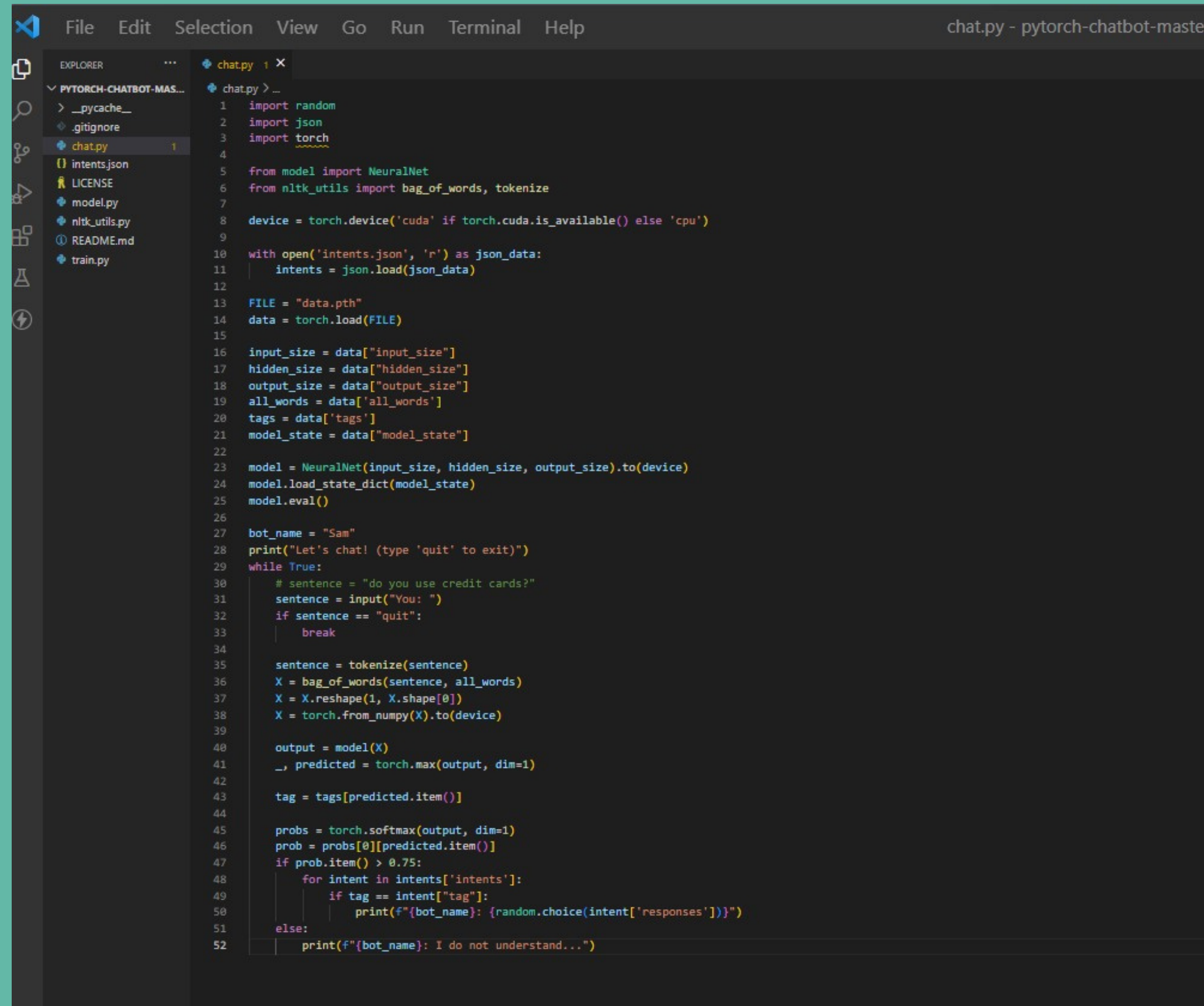
- First we created a sample dataset on which our chatbot will train by using Anaconda, Pytorch, nltk and machine learning algorithms.
- Our chatbot will answer the queries of students in their own language by the given dataset.

Flowchart of ChatBot



Progress till now

Till now we have coded for the chatbot and now we will progress to innovate by adding other language in the dataset so the chatbot can respond in different languages



```
File Edit Selection View Go Run Terminal Help
chat.py - pytorch-chatbot-master

EXPLORER
PYTORCH-CHATBOT-MAS...
  > __pycache__
  .gitignore
  chat.py
  intents.json
  LICENSE
  model.py
  nltk_utils.py
  README.md
  train.py

chat.py
1 import random
2 import json
3 import torch
4
5 from model import NeuralNet
6 from nltk_utils import bag_of_words, tokenize
7
8 device = torch.device('cuda' if torch.cuda.is_available() else 'cpu')
9
10 with open('intents.json', 'r') as json_data:
11     intents = json.load(json_data)
12
13 FILE = "data.pth"
14 data = torch.load(FILE)
15
16 input_size = data["input_size"]
17 hidden_size = data["hidden_size"]
18 output_size = data["output_size"]
19 all_words = data['all_words']
20 tags = data['tags']
21 model_state = data["model_state"]
22
23 model = NeuralNet(input_size, hidden_size, output_size).to(device)
24 model.load_state_dict(model_state)
25 model.eval()
26
27 bot_name = "Sam"
28 print("Let's chat! (type 'quit' to exit)")
29 while True:
30     # sentence = "do you use credit cards?"
31     sentence = input("You: ")
32     if sentence == "quit":
33         break
34
35     sentence = tokenize(sentence)
36     X = bag_of_words(sentence, all_words)
37     X = X.reshape(1, X.shape[0])
38     X = torch.from_numpy(X).to(device)
39
40     output = model(X)
41     _, predicted = torch.max(output, dim=1)
42
43     tag = tags[predicted.item()]
44
45     probs = torch.softmax(output, dim=1)
46     prob = probs[0][predicted.item()]
47     if prob.item() > 0.75:
48         for intent in intents['intents']:
49             if tag == intent["tag"]:
50                 print(f"{bot_name}: {random.choice(intent['responses'])}")
51     else:
52         print(f"{bot_name}: I do not understand...")
```



intent:clg_enquiry

- What are the courses available in this college
- What are the surroundings
- What is the fee structure
- How much financial aid will I get
- What are the documents required for submission
- Is there a dress code
- Is the discipline good
- What is percentage of placement
- Is it co-ed

intent:hostel_enquiry

- What is quality of on-campus housing
- Hostel fees
- Is outing allowed
- What is the availability of recreational facilities on campus



intents:

- clg_enquiry
- hostel_enquiry

responses:

utter_clg_enquiry

- text "CSE and its specialisations, ECE, EE, ME are available"
- text "based on vit ranking"
- text "What is your rank"
- text "10th,12th, JEE Rank"
- text "No"
- text "Yes"
- text "Almost 100%"
- text "Partially"

utter_hostel_enquiry

- text "Different clubs, sports activities are available"
- text "It is on the better side"
- text "Surrounded with lush green pastures and away from the city pollution"
- text "Yes"

entities:

- number

session_config:

session_expiration_time: 60
carry_over_slots_to_new_session: true



```
## clg_enquiry
```

```
*clg_enquiry
```

```
- utter_clg_enquiry
```

```
## hostel_enquiry
```

```
*hostel_enquiry
```

```
-utter_hostel_enquiry|
```

Output

```
➤ BOT: My name is Jarvis. Let's have a conversation. Also, if you want to exit any time , just type Bye!  
hi  
BOT: hey  
hello  
BOT: nods*  
Bye  
BOT: Goodbye! Take care <3
```

Thank you!