



LOVELY
PROFESSIONAL
UNIVERSITY

Transforming Education Transforming India

PYTHON (INT213)

PROJECT 1 :CHATBOT

Name : Shreetej Dilip Phule

Section : K20CT

PROGRAM : Btech CSE

SEMESTER : THIRD

ROLL NUMBER : RK20CTA01

REG NUMBER : 12009249

DATE OF SUBMISSION : 15th NOVEMBER 2021

CHATBOT : 15th NOVEMBER 2021

- What is a chatbot?
- At the most basic level, a chatbot is **a computer program that simulates and processes human conversation (either written or spoken)**, allowing humans to interact with digital devices as if they were communicating with a real person.
- ChatterBot is a Python library that is **designed to deliver automated responses to user inputs**. It makes use of a combination of ML algorithms to generate many different types of responses. The library is designed in a way that makes it possible to train your bot in multiple programming languages.
- ACKNOWLEDGEMENT : I would Like to thank my mentor and Prof Mr Md Imran Hussain for his advice and inputs on this project.

DESCRIPTION

- In my project i have explored how a chatbot can give information to students about school-related information. In the first iteration of the project I have created a chatbot for personal chat hi , hello etc. One of my hypothesis was that information given by chatbots would be useful for students.
- A chatbot needs a purpose, and if we consider that if this purpose is to be helpful, it also needs to gain trust from the users. There is no need to ask a chatbot for help if you don't trust the information it gives you. With this in mind we consider the first question to be a bit too ambiguous and large for us to investigate in this course. We have therefore used this question as a guideline for what we can actually manage to explore in this course and what we can find on the existing literature in this field. Trust is an important factor for reliance on and implementation of technology (Lee & See, 2004).

BACKGROUND

- Chatbots has emerged as a hot topic in the latest years, and it is used by numerous companies in various areas - help desk tools, automatic telephone answering systems, e-commerce and so on. Even though the technology has been around since the 60's (Atwell & Shawar, 2007). Why are we suddenly so interested in this technology now? This can likely be explained by the recent year's advancements in messaging applications and AI technology (Brandtzaeg & Folstad, 2017)
- Are they really useful? Atwell and Shawar provide real-life examples of different chatbots in different contexts. One of the examples is Sophia, a robot that was developed to assist in mathematics at Harvard by answering students questions. This turned out to be applicable in many other contexts. Living in Norway you have probably noticed "Kommune Kari". A chatbot that many of the municipality have available on their web-pages. Kari is there to answer "easy" questions like "when will the garbage truck come?" and "where can I find available jobs?". Kari's goal and the job is to provide information so that you as a user don't have to navigate the "massive information flow."
- This way of using a chatbot is a part of the Question Answering (QA) field.

STEP 1

```
import random

var_1 = ['hi', 'hello']
var_2 = ['how are you', 'how are you doing', 'how is your health']
var_3 = ['what is your name', 'how do i call you', 'name', 'your name please']
var_4 = ['programming language', 'what should i learn']
var_5 = ['what are your hobbies', 'hobbies', 'what do you do in your free time']
```

- 1)I've just used the 'Random' module here other than that there's no need to use any other module for this project.
- 2)'IMPORT' : i've used it to import the random module
- 3)Later I've declared the variables that will store questions like for example 'What is your name?' Etc Etc

STEP 2

```
while True:
    user_input = input('shreetej said to bot:')

    if user_input.lower() in var_1:
        bot_1 = ['hello', 'hi']
        print('bot replied to shreetej : '+random.choice(bot_1)+ '\n')

    elif user_input.lower in var_2:
        bot_2 = ['i am good', 'i am doing good', 'i am fine']
        print('bot replied to shreetej : '+random.choice(bot_2) + '\n')

    elif user_input.lower in var_3:
        bot_3 = ['my name is chatterbot', 'call me chatterbot', 'chatterbot']
        print('bot replied to shreetej : '+random.choice(bot_3) + '\n')
```

1)Now basically I've applied 'While' Condition.

2)While true :

it means that whatever we'll write in this while condition it will surely get executed. In short the control of the program will go inside while loop and that thing will get executed.

3)If you're not defining any data type before taking a particular user_input then that data type will be automatically taken in the form of String.

STEP 3

```
elif user_input.lower in var_4 :  
    bot_4 = ['python','python programming']  
    print('bot replied to shreetej : '+random.choice(bot_4) + '\n')  
  
elif user_input.lower in var_5 :  
    bot_5 = ['reading','listening music','dance']  
    print('bot replied to shreetej : '+random.choice(bot_5) + '\n')  
  
else:  
    print('bot replied to shreetej - sorry what are you asking , i am not getting that ?'+ '\n')
```

- 1) All the elif conditions are declared
- 2) what if the user ask any other question than this?
For that I've used else condition.

STEP 4 : OUTPUT

```
shreetej said to bot:hi
```

```
bot replied to shreetej : hello
```

```
shreetej said to bot:what is your problem
```

```
bot replied to shreetej - sorry what are you asking , i am not getting that ?
```

2nd question was not declared that's why Bot replied that way



pythonProject - main.py

pythonProject > firstproject

Project

- pythonProject C:\Users\Admin\PycharmProjects\pythonProject
 - chatbot.py
 - firstproject
 - main.py
 - External Libraries
 - Scratches and Consoles

main.py x chatbot.py x

```
20 elif user_input.lower in var_3 :
21     bot_3 = ['my name is chatterbot', 'call me chatterbot', 'chatterbot']
22     print('bot replied to shreetej : '+random.choice(bot_3) + '\n')
23
24 elif user_input.lower in var_4 :
25     bot_4 = ['python', 'python programming']
26     print('bot replied to shreetej : '+random.choice(bot_4) + '\n')
27
28 elif user_input.lower in var_5 :
29     bot_5 = ['reading', 'listening music', 'dance']
30     print('bot replied to shreetej : '+random.choice(bot_5) + '\n')
31
32 else:
33     print('bot replied to shreetej - sorry what are you asking , i am not getting that ?'+ '\n')
34
35
```

while True > elif user_input.lower in var_4

Run: main x

C:\python310\python.exe C:/Users/Admin/PycharmProjects/pythonProject/main.py

shreetej said to bot:hi

bot replied to shreetej : hello

shreetej said to bot:what is your problem

bot replied to shreetej - sorry what are you asking , i am not getting that ?

shreetej said to bot:

Run TODO Problems Debug Terminal Python Packages Python Console

8:22 CRLF UTF-8 4 spaces Python 3.10

ENG IN 12:00 15-11-2021

Conclusion And References

- From my perspective, chatbots are dramatically changing businesses. There is a wide range of chatbot building platforms that are available for various enterprises, such as e-commerce, retail, banking, leisure, travel, healthcare, and so on.
- Chatbots can reach out to a large audience on messaging apps and be more effective than humans. They may develop into a capable information-gathering tool in the near future.
- REFERENCES : 1) www.udemy.com
- 2) <https://www.coursera.org/courses?query=chatbot>



THANK YOU