

CODTECH Internship - Task 3 Report

Objective:

Build a chatbot using Natural Language Processing (NLP) libraries like NLTK or spaCy, capable of answering user queries interactively.

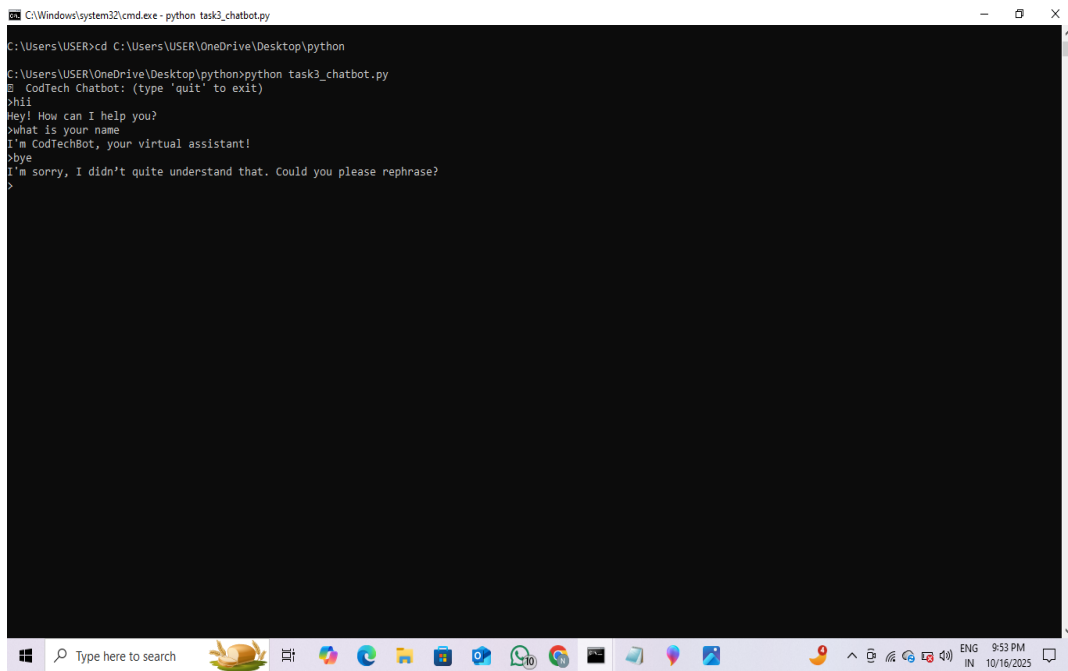
Tools & Libraries Used:

- Python 3
- NLTK (Natural Language Toolkit)
- Regular Expressions

Implementation Summary:

A simple chatbot was created using the NLTK library's **Chat** and **reflections** modules. The chatbot uses pattern matching with regular expressions to interpret user input and respond with predefined answers. It simulates conversational responses such as greetings, self-introduction, and general assistance.

Sample Chatbot Output:



```
C:\Windows\system32\cmd.exe - python task3_chatbot.py
C:\Users\USER>cd C:\Users\USER\OneDrive\Desktop\python
C:\Users\USER\OneDrive\Desktop\python>python task3_chatbot.py
B CodTech Chatbot: (type 'quit' to exit)
>Hi
Hey! How can I help you?
>What is your name
I'm CodTechBot, your virtual assistant!
>bye
I'm sorry, I didn't quite understand that. Could you please rephrase?
>
```

Conclusion:

This task demonstrates how Natural Language Processing concepts can be applied to create a simple, rule-based chatbot capable of understanding and responding to user queries. It provides a foundation for building more advanced AI-based conversational agents.