TOPPERWORLD INTERNSHIP

RISE BATCH 9

(1ST FEB- 1ST MAR)

PROJECT ON TASK 3

AI CHATBOT

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AI CHATBOT

INTRODUCTION

A chatbot is a software application that can interact with humans using natural language. Chatbots can be used for various purposes, such as customer service, entertainment, education, and more.

There are many ways to create a chatbot, but one of the most popular methods is using Natural Language Processing (NLP), which is a branch of AI that deals with understanding and generating human language. NLP can help chatbots to analyze user input, extract relevant information, and generate appropriate responses.

To create an AI chatbot using NLP, you will need some tools and steps, such as:

- A dataset of conversations or dialogues that can be used to train your chatbot. You can either use an existing dataset or create your own.
- A framework or library that can help you to build and deploy your chatbot. Some examples are TensorFlow, PyTorch, Rasa, Dialogflow, etc.
- A model or algorithm that can learn from the dataset and generate responses. Some examples are Seq2Seq, Transformer, GPT, BERT, etc.
- A platform or channel that can connect your chatbot to your users. Some examples are web, mobile, social media, voice, etc.

CODE FOR AI CHATBOT USING PYTHON IN VS CODE

```
import random



# Define a dictionary of responses

responses = {

    "hello": "Hi there!",

    "how are you": "I'm just a computer program, so I don't have feelings. But I'm here to help you!",

    "bye": "Goodbye! Have a great day!",

    "thanks": "You're welcome!",

    "what's your name": "I'm a simple AI chatbot. I don't have a name.",

    "default": "I'm sorry, I didn't understand that. Could you please rephrase your question?"
```

```
}

# Define a function to handle user input
def handle_input(user_input):
    user_input = user_input.lower()
    for key, value in responses.items():
        if key in user_input:
            return value
    return responses["default"]

# Start the chatbot loop
print("Hi! I'm a simple AI chatbot. Type something to get started.")
while True:
    user_input = input("You: ")
    if user_input.lower() == "quit":
        break
    response = handle_input(user_input)
    print("Chatbot:", response)

print("Goodbye!")
```

OUTPUT

```
Hi! I'm a simple AI chatbot. Type something to get started.
You: hello
Chatbot: Hi there!
You: how are you
```

Chatbot: I'm just a computer program, so I don't have feelings. But I'm here to help you!

You: what's your name

Chatbot: I'm a simple AI chatbot. I don't have a name.

You: thanks

Chatbot: You're welcome!

You: bye

Chatbot: Goodbye! Have a great day!

You: quit

Goodbye!

This ai chatbot icon is made by me

CONCLUSION

One of the most popular libraries for creating chatbots in Python is ChatterBot, which allows you to build and train a self-learning chatbot with just a few lines of code. You can also customize your chatbot's responses by using your own data, such as WhatsApp chat history.

Another option is to use OpenAI, which is a powerful platform for creating generative AI models that can produce natural and coherent text. One of the models that OpenAI offers is GPT, which stands for Generative Pre-trained Transformer. GPT can generate text, translate language, and write different types of creative content. You can use GPT to create a chatbot that can respond to user input with semi-meaningful replies.