

Utilising GPT for Customer Service Automation

I was assigned to develop an AI powered chatbot with Python script.

Implementation

- API Setup:

For this implementation, I used **Google's Generative AI** (Gemini Pro model) to handle the API requests.

```
# Configure the Google Generative AI API key
genai.configure(api_key='your_gemini_api_token')

# Function to load Gemini Pro model and get responses
model = genai.GenerativeModel("gemini-pro")
chat = model.start_chat(history=[])
```

API key configuration and model loading

- Input Handling:

The script accepts user inquiries via a text input box and a submit button using **Streamlit**.

- Interacting with GPT model:

The function “**get_gemini_response**” is responsible for interacting with the GPT model to generate a response to the user's inquiry. It sends the user's question to the model using the “**send_message**” method, which streams the response back.

- Formatting:

Once a response is generated, it is formatted for clear and user-friendly text. If the response is generated from the predefined script, it is directly returned. The response is then appended to the chat history.

- Running the code:

You can run the code in the terminal by using the following command:

```
PS C:\Users\User\Downloads\intern-assessment\intern-assessment\part-2> streamlit run gemini_chatbot.py

You can now view your Streamlit app in your browser.

Local URL: http://localhost:8501
Network URL: http://192.168.1.134:8501
```

Running the command in the terminal

Customer Service Chatbot

Ask your question:

Submit

Chat History:

Directing the app in the default web browser

- Sample Output:

Customer Service Chatbot

Ask your question:

hello

Submit

Response:

Hello! How can I assist you today?

Customer Service Chatbot

Ask your question:

how to create an account?

Submit

Response:

To create a new account, please visit our sign-up page, fill in your details, and follow the instructions. If you need further assistance, please let us know!

Customer Service Chatbot

Ask your question:

how to track order

Submit

Response:

You can track your order using the tracking number provided in your confirmation email.

Customer Service Chatbot

Ask your question:

there is an error

Submit

Response:

Apologize for any convience. Please contact support via email or call us directly.

Customer Service Chatbot

Ask your question:

how to contact human agent

Submit

Response:

I am informing to the customer service team. You can contact support via email or call us directly.

Customer Service Chatbot

Ask your question:

bye

Submit

Response:

Thank you for reaching out. Have a great day!

Chat History:

You: hello

Bot: Hello! How can I assist you today?

You: how to create an account?

Bot: To create a new account, please visit our sign-up page, fill in your details, and follow the instructions. If you need further assistance, please let us know!

You: how to track order

Bot: You can track your order using the tracking number provided in your confirmation email.

You: there is an error

Bot: Apologize for any convience. Please contact support via email or call us directly.

You: how to contact human agent

Bot: I am informing to the customer service team. You can contact support via email or call us directly.

You: bye

Bot: Thank you for reaching out. Have a great day!

- **Error Handling and Safety Check:**

The script includes error handling to manage potential issues during the API request to the GPT model. In the “**get_gemini_response**” function, a try-except block is used to catch exceptions that may occur during the API call.

Integrating Dialogflow and Generative AI

I trained the response in the Dialogflow and tried to integrate it with Generative AI into the customer service chatbot project for enhancing conversational capabilities and response quality. However, I got an error in permission and failed. Despite these challenges, the task provided valuable insights into AI integration for customer service chatbot.

