Health Advice Chatbot

Introduction

The Health Advice Chatbot is a user-friendly application designed to provide preliminary health advice and information using OpenAI's GPT-3.5-turbo model. Built with Python and Streamlit, it offers an accessible web interface for users to input natural language queries related to health, symptoms, preventive measures, general health advice, medical terms, and first aid.

Features

1. Symptom Checker: Provides potential conditions based on user-reported symptoms.
2. Preventive Measures: Offers advice on how to prevent specific health issues.
3. General Health Advice: Gives tips and advice on various health topics.
4. Medical Terms: Explains medical terminology in simple language.
5. First Aid: Provides basic first aid advice for different scenarios.

Setup and Installation

Prerequisites
- Python 3.7 or higher
- pip (Python package installer)

Steps
1. Clone the Repository
   Open your terminal and run the following command:

   git clone https://github.com/Mansi-Dabriwal/health-advice-chatbot
   cd health-advice-chatbot

2. Install Dependencies
   Install the required Python packages using pip:

   pip install -r requirements.txt

3. Configure OpenAI API Key
   Create a `.env` file in the project root directory and add your OpenAI API key:

   OPENAI_API_KEY=your_openai_api_key

Running the Application
To start the Streamlit application, run the following command in your terminal:

```
streamlit run app.py
```

This will start the Streamlit server. Open your web browser and navigate to `http://localhost:8501` to access the application.

Using the Chatbot

Symptom Checker
- Input: Describe your symptoms.
- Example Query: "I have a sore throat and a fever."
- Output: Potential conditions related to the symptoms.

Preventive Measures
- Input: Specify a health concern.
- Example Query: "How can I prevent the flu?"
- Output: Advice on preventive measures for the specified concern.

General Health Advice
- Input: Ask for tips on a general health topic.
- Example Query: "What are some tips for maintaining a healthy diet?"
- Output: Useful tips and advice related to the health topic.

Medical Terms
- Input: Enter a medical term you want to understand.
- Example Query: "What does hypertension mean?"
- Output: Explanation of the medical term in simple language.

First Aid
- Input: Describe a first aid scenario.
- Example Query: "What should I do if someone is having a heart attack?"
- Output: Basic first aid steps for the described scenario.

Error Handling
The application includes robust error handling for common issues such as exceeding rate limits or invalid requests. The `call_openai_api` function implements retries with exponential backoff for rate limits and provides user-friendly error messages for other issues.

Common Errors and Solutions
- Rate Limit Exceeded: If you exceed the API quota, the application will prompt you to check your OpenAI plan and billing details.
- Invalid Requests: If the request is invalid, the application will display an appropriate error message, helping you understand what went wrong and how to fix it.

Conclusion
The Health Advice Chatbot is a powerful tool that leverages advanced AI to deliver valuable health information, making it an essential application for anyone looking to improve their health knowledge. It provides quick and helpful responses to health-related queries, making it accessible and user-friendly.

GitHub Repository: https://github.com/Mansi-Dabriwal/health-advice-chatbot