Incorporating Conversational Chatbot – API KEY

Abstract

Artificial intelligence is transforming everything towards automation as AI models are gaining importance. Rapidly responding AI models have brought revolution in every field of life whether by developing AI models or incorporating built-in AI models and manipulating as needed. This article has presented the method to incorporate built-in AI models and manipulated as desired.

Introduction:

AI models are worthy to consider their usage specifically for scientific purposes (Zhehui Liao, 2024). Chatbots are AI agents that manipulates Artificial intelligence to respond like human as taking inputs, processing and generating response. Chatbots can be incorporated in different forms like voice or text based with underlying Natural language processing (Avyay Casheekar, 2024). Natural language processing enables answering queries, understanding language, text classification, language generation (Avyay Casheekar, 2024). In this article a step-by-step procedure have been shown to incorporate llama-3.1-8b-instant conversational chatbot to manipulate as needed.

Literature Review:

Rapid advancements in artificial intelligent systems have enhanced the importance of LLM's (Hamdoni Pangandaman, 2025). LLM's extraordinary capabilities have been proved of significant importance in the field of Natural Language Processing (Humza Naveeda, 2024). AI models are basically designed to provide support in artificial intelligent tasks. Several AI models e.g. like Llama 3.1 series from meta-available in 8B, 70B, 405B versions has been introduced for developing autonomous systems transforming human lives in most economical way (Aaron Grattafiori, 2024). Llama 3.1 series are models comparable with other high-quality models in versatility (Aaron Grattafiori, 2024). Llama 3.1 series from Llama model family have been trained on massive datasets excels in natural language processing tasks as text generation, language translation, conversations making it a versatile tool in applications like Chatbots, content creation, information retrieval, multilingual communication (Kira Sam, July 2024). PyCharm IDE is an integrated development environment provided by JetBrains that has brought AI to desktop (Anton Semenkin, 2024).

Materials & Methods:

There are various methods to incorporate AI Chatbot, however this article demonstrates the API based incorporation of llama-3.1-8b-instant chatbot.

Step 1: Download and install PyCharm – IDE for python coding and write program. **https://www.jetbrains.com/pycharm/**

Step 2: Create an account on open AI and generate a secret API key by providing name and other details.

https://console.groq.com/keys

Figure 1

Step 3: Copy and paste this Api key in your python code to get AI models working and provide URL for Api key. There are several AI models that can be incorporated however, this article has incorporated **"llama-3.1-8b-instant"** AI model.

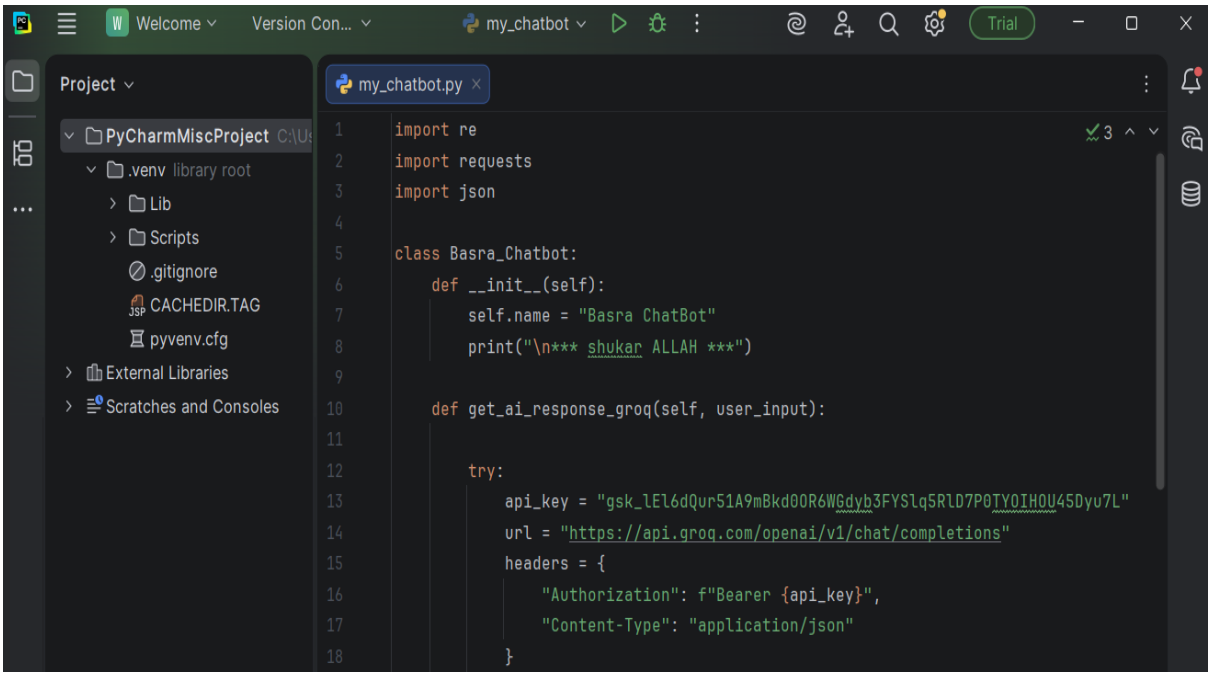

Figure 2

Step 4: write the chat function to prompt the user, get user input, process and generate the desired output.

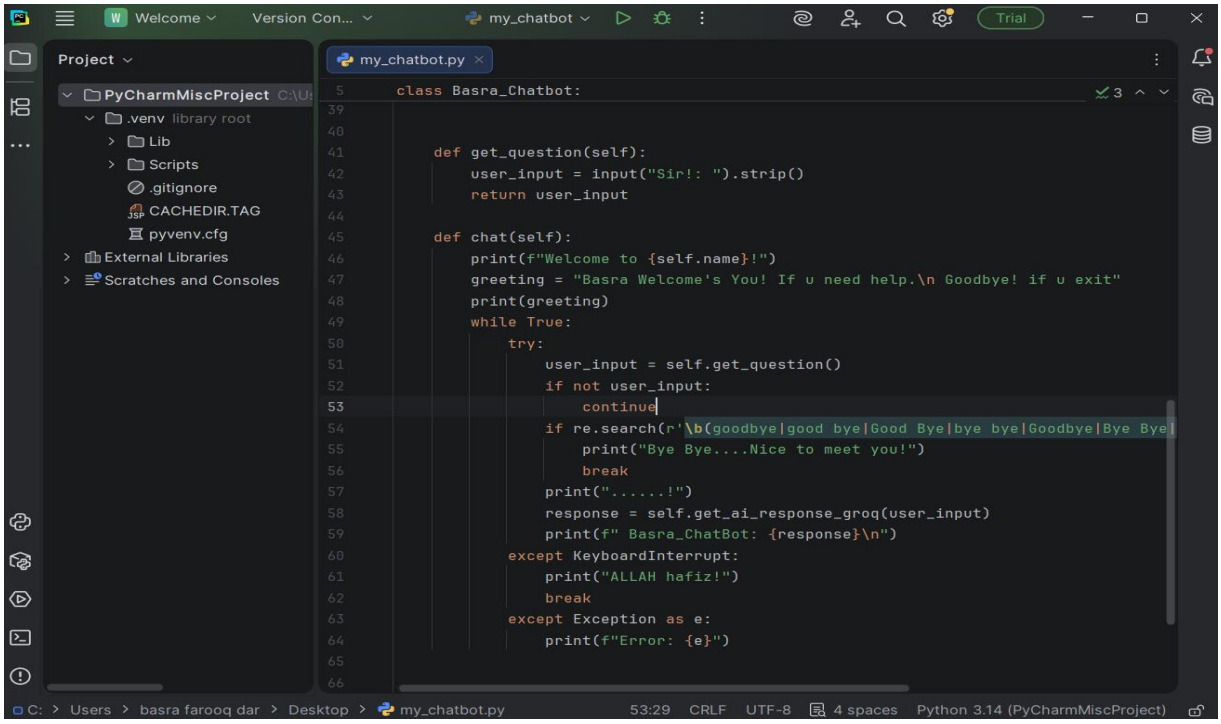

Figure 3

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