

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 Semenko, 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>

Create API Key ×

Display Name

A display name for the key. Maximum 50 characters.

Expiration

No expiration

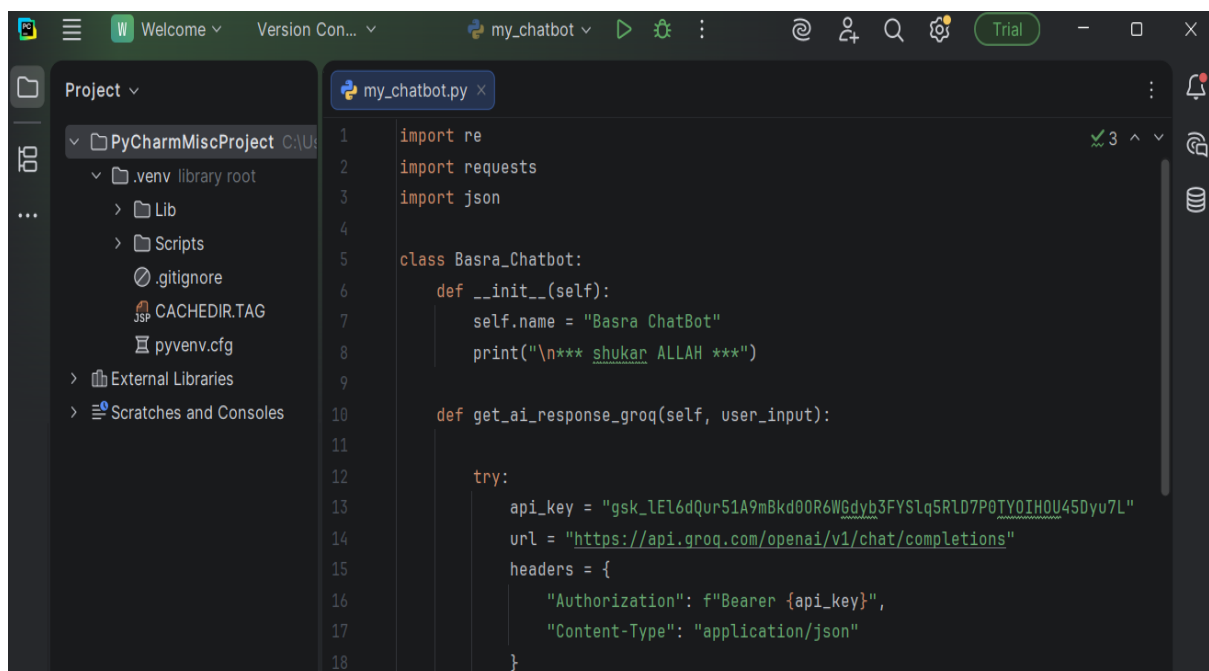
▼

This key will not expire.

Submit

Figure 1

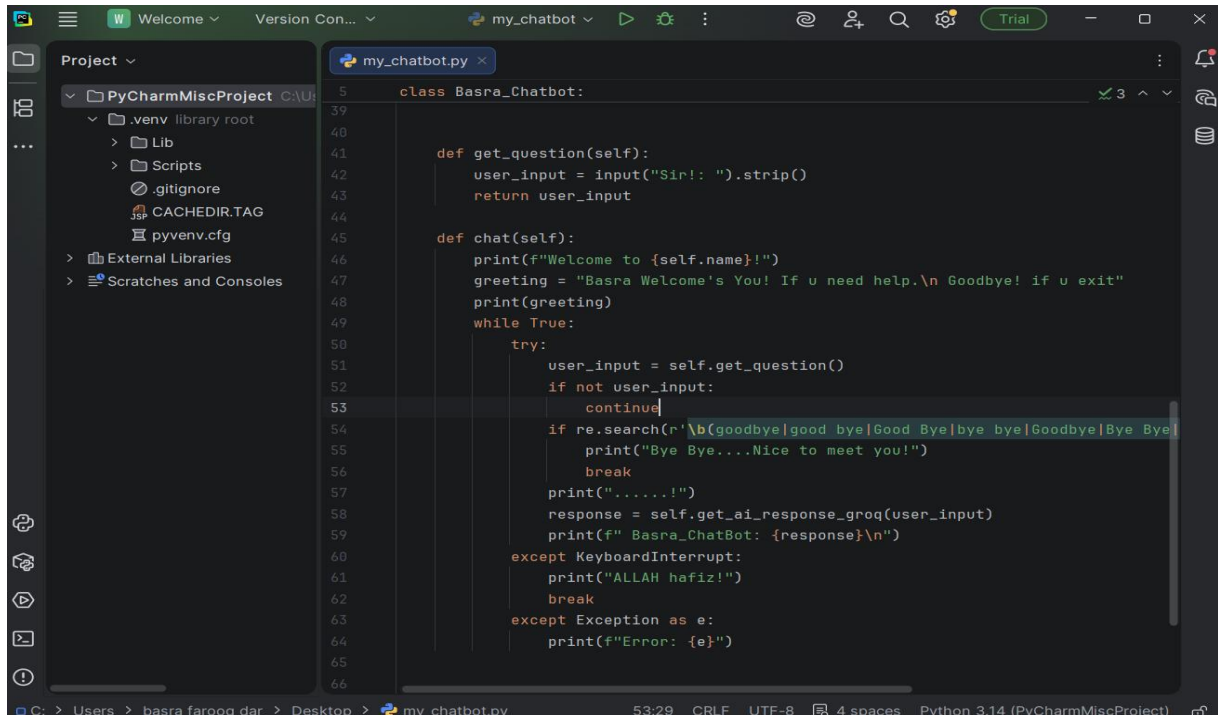
Step 3: Copy and paste this Api key in your python code to get AI models working and provide URL for Api key. There are several AI models that can be incorporated however, this article has incorporated “**llama-3.1-8b-instant**” AI model.



```
1 import re
2 import requests
3 import json
4
5 class Basra_Chatbot:
6     def __init__(self):
7         self.name = "Basra ChatBot"
8         print("\n*** shukar ALLAH ***")
9
10    def get_ai_response_groq(self, user_input):
11
12        try:
13            api_key = "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"
14            url = "https://api.groq.com/openai/v1/chat/completions"
15            headers = {
16                "Authorization": f"Bearer {api_key}",
17                "Content-Type": "application/json"
18            }
```

Figure 2

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



```
5 class Basra_Chatbot:
39
40
41     def get_question(self):
42         user_input = input("Sir!: ").strip()
43         return user_input
44
45     def chat(self):
46         print(f"Welcome to {self.name}!")
47         greeting = "Basra Welcome's You! If u need help.\n Goodbye! if u exit"
48         print(greeting)
49         while True:
50             try:
51                 user_input = self.get_question()
52                 if not user_input:
53                     continue
54                 if re.search(r'\b(goodbye|good bye|Good Bye|bye bye|Goodbye|Bye Bye|
55                     print("Bye Bye...Nice to meet you!")
56                     break
57                 print(".....!")
58                 response = self.get_ai_response_groq(user_input)
59                 print(f" Basra_ChatBot: {response}\n")
60             except KeyboardInterrupt:
61                 print("ALLAH hafiz!")
62                 break
63             except Exception as e:
64                 print(f"Error: {e}")
65
66
```

Figure 3

References

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