**Date:24.09.25**

**TASK:9**

To Build an Intelligent **Chatbot system** with Python and Dialog-flow using Interactive Text Mining Framework for Exploration of Semantic Flows in Large Corpus of Text.

To Build an Intelligent Chatbot system with Python and Dialog-flow using Interactive Text Mining Framework for Exploration of Semantic Flows in Large Corpus of Text. **CO4 S3**

* To integrate with Google Cloud Speech-to-Text and third-party services such as Google Assistant, Amazon Alexa, and Facebook Messenger.
* Configure Dialogflow to manage your data across GCP services and let you optionally integrate Google Assistant.

**Tools- Python, Dialog-flow Framework**

**DATE:24.09.25**

TO BUILD AN INTELLIGENT **CHATBOT SYSTEM** WITH PYTHON AND DIALOG- FLOW USING INTERACTIVE TEXT MINING FRAMEWORK FOR EXPLORATION OF SEMANTIC FLOWS IN LARGE CORPUS OF TEXT

**AIM:**

To build an intelligent chatbox system with Python and dialog-flow using interactive

text mining framework for exploration of semantic flow in large corpus of Text

**ALGORITHM:**

Steps to create an intelligent chatbot using OpenAI APIs:

1. Sign up for OpenAI API access at https://beta.openai.com/signup/. Once you sign up, you will receive your API key.
2. Choose the type of chatbot you want to create. For example, you can create an FAQ chatbot, a customer support chatbot, or a conversational chatbot.
3. Use OpenAI's GPT-3 language model to generate responses to user input. You can use the API to train the language model on your chatbot's intended use case/s.
4. Use Natural Language Processing (NLP) techniques to understand user input and provide relevant responses. You can use OpenAI's API to extract entities (such as dates and names) from user input.
5. Use Machine Learning to continually improve the chatbot's ability to understand and respond to user input.
6. Integrate the chatbot with your preferred messaging platform or channel (e.g., web chat, social media, etc.) using API connectors.
7. Test your chatbot frequently, and use user feedback to improve its performance and provide the best possible experience for your users.
   1. **SIMPLE CHATGPT USING GEMINI CODE:**

from langchain\_google\_genai import ChatGoogleGenerativeAI llm = ChatGoogleGenerativeAI(

model="gemini-2.5-flash", # Or "gemini-1.5-pro-latest" if available

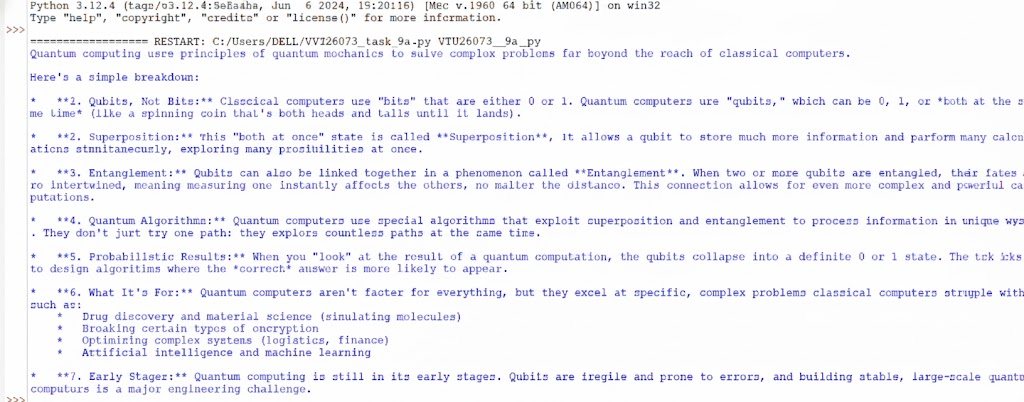
google\_api\_key="AIzaSyCp7RYEV2grZ3GkemVEGyqFQW\_LXF9fUk4", # Keep this secure!

temperature=0.7

)

response = llm.invoke("Explain quantum computing simply,breif in points") print(response.content)

**OUTPUT:**

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* 1. **CHATGPT ASSISTANT USING GEMINI**

**CODE:**

# gemini\_chatbot.py

from flask import Flask, request, jsonify

import os

from google import genai

from google.genai import types

app = Flask( name ) GEMINI\_API\_KEY="AIzaSyCp7RYEV2grZ3GkemVEGyqFQW\_LXF9fUk4"

# --- Configure API Key ---

# Using the hardcoded API key from above

api\_key = GEMINI\_API\_KEY

# Initialize the client

client = genai.Client(api\_key=api\_key)

# Choose the Gemini model you want to use

MODEL = "gemini-2.5-flash" # or “gemini-2.5-pro” etc, depending on access

def generate\_reply\_from\_gemini(prompt: str) -> str: """

Send the user prompt to Gemini and return the response app.route("/") def home()

return app.send\_static\_file('index.html')

@app.route("/chat", methods=["POST"]) def chat():

data = request.get\_json()

user\_message = data.get("message", "")

if not user\_message:

return jsonify({"error": "No message provided"}), 400

text. """

response = client.models.generate\_content(

model=MODEL, contents=prompt,

# You can optionally provide a config, e.g. thinking\_budget etc.

#

config=types.GenerateContentConfig(thinking\_config=types.ThinkingConfig(thinking\_budget

=0))

)

return response.text

@app.route("/") def home()

return app.send\_static\_file('index.html')

@app.route("/chat", methods=["POST"]) def chat():

data = request.get\_json()

user\_message = data.get("message", "")

if not user\_message:

return jsonify({"error": "No message provided"}), 400

try:

reply = generate\_reply\_from\_gemini(user\_message)

return jsonify({"reply": reply})

except Exception as e:

retodel=MODEL, contents=prompt,

# You can optionally provide a config, e.g. thinking\_budget etc.

#

config=types.GenerateContentConfig(thinking\_config=types.ThinkingConfig(thinking\_budget

=0))

)

return response.text

@app.route("/") def home()

return app.send\_static\_file('index.html')

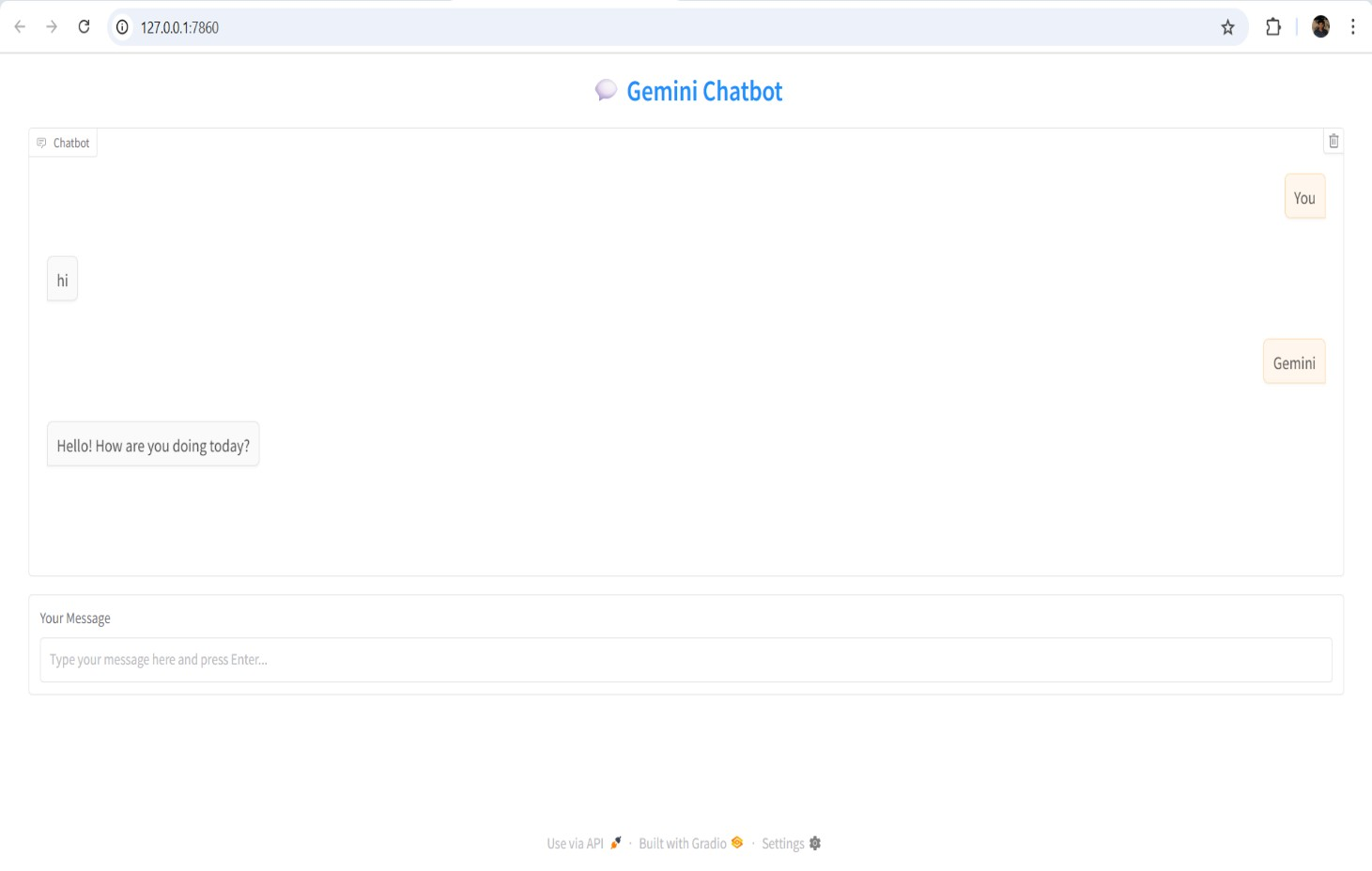
return jsonify({"error": str(e)}), 500

if name == " main ":

# Run in debug for development

app.run(host="0.0.0.0", port=5000, debug=True)

**OUTPUT:**

****

* 1. **CHATBOT CHAT ASSISTANT WEBSITE CODE:**

import openai import gradio

openai.api\_key = "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"

messages = [{"role": "system", "content": "You are a financial experts that specializes in real estate investment and negotiation"}]

def CustomChatGPT(user\_input): messages.append({"role": "user", "content": user\_input}) response = openai.ChatCompletion.create(

model = "gpt-3.5-turbo", messages = messages

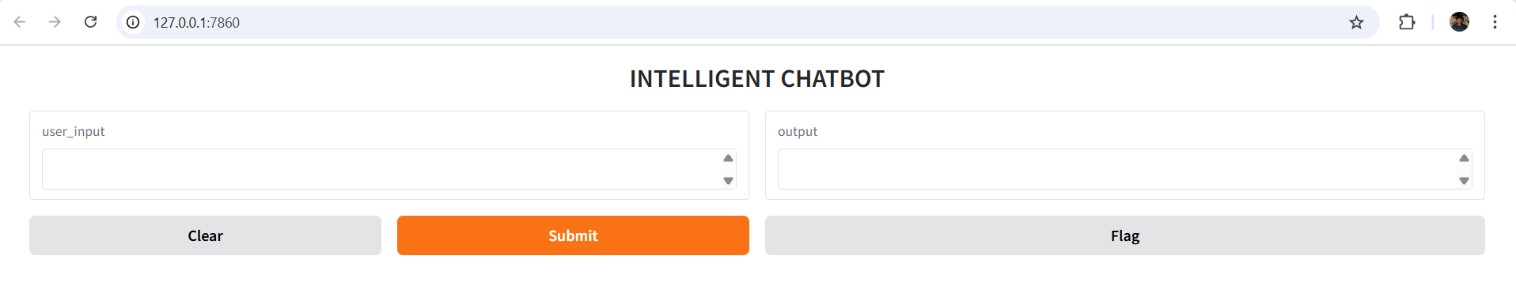
)

ChatGPT\_reply = response["choices"][0]["message"]["content"] messages.append({"role": "assistant", "content": ChatGPT\_reply}) return ChatGPT\_reply

demo = gradio.Interface(fn=CustomChatGPT, inputs = "text", outputs = "text", title = "INTELLIGENT CHATBOT")

demo.launch(share=True)

**OUTPUT:**

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**RESULT:**

Thus, to build an intelligent chatbox system with Python and dialogue flow was successfully completed and output was verified.