**DAY -9**

**Quiz Generator using GPT**

**1.Introduction**

This project is a Python-based Quiz Generator that uses OpenAI's GPT model to create quizzes on any topic. Users input a topic and the number of questions they want, and the system generates a multiple-choice quiz automatically.

**Step 1: Project Setup Instructions**

**How to Set Up**

1. Open Google Colab.
2. Click **New Notebook**.
3. In the first cell, run this to install OpenAI: **!pip install openai**

**This installs the required library that allows you to interact with the GPT model.**

**Step 2: Import Libraries and Set Up API Key**

1. After installing the OpenAI library, import the required modules and configure your API key.
2. Paste the following code in a new cell:

from openai import OpenAI

import json

# 🔐 Paste your OpenAI API key here

client = OpenAI(api\_key="sk-proj-...") # Replace with your own key

1. Important: Replace "sk-proj-..." with your actual OpenAI API key (keep it private and secure).

**Step 3: Define the Quiz Generation Function**

This step creates the main function that interacts with GPT to generate quiz questions.

1. In a new cell, paste the following code:

def generate\_quiz\_gpt(topic, num\_questions):

prompt = f"""

Create a quiz on the topic: {topic}.

Include {num\_questions} multiple-choice questions.

Each question should have 4 options and the correct answer clearly labeled.

Format the result as JSON like this:

[

{{

"question": "What is...",

"options": ["A", "B", "C", "D"],

"answer": "B"

}}

]

"""

response = client.chat.completions.create(

model="gpt-3.5-turbo", # Or use "gpt-4" if you have access

messages=[{"role": "user", "content": prompt}],

temperature=0.7

)

content = response.choices[0].message.content

try:

return json.loads(content)

except json.JSONDecodeError:

print("⚠️ Could not parse JSON. Here's what I got:")

print(content)

return []

1. Click **▶️** to run the cell.

**Step 4: Take User Input and Generate Quiz**

This step handles user input to generate multiple quizzes interactively.

1. Paste the following code in a new cell:

while True:

user\_input = input("\nEnter topic and number of questions (e.g., 'Python,5'): ")

if ',' not in user\_input:

print("❌ Please use the correct format (e.g., 'Topic,5')")

continue

topic, num = user\_input.split(",", 1)

topic = topic.strip()

try:

num\_questions = int(num.strip())

except ValueError:

print("❌ Number of questions must be a number.")

continue

quiz = generate\_quiz\_gpt(topic, num\_questions)

if quiz:

print(f"\n📘 Quiz on: {topic}")

for idx, q in enumerate(quiz, 1):

print(f"\nQ{idx}: {q['question']}")

for opt in q['options']:

print(f"- {opt}")

print(f"✅ Answer: {q['answer']}")

else:

print(f"❌ Could not generate quiz for '{topic}'")

again = input("\nDo you want to add another topic? (yes/no): ").strip().lower()

if again != "yes":

print("\n✅ Quiz generation complete.")

break

Output:

