AI ASSISTED CODING

LAB TEST-01

ROLLNO:2403A52084

BATCH:04

QUESTION-01:

PROMPT: WRITE A PYTHON CODE THAT FETCHES DATA USING AN API KEY.

CODE:

```python
import requests

API_KEY = "5f1d21a865bb4371a6918154507db1e3"  # Insecure practice

url = f"https://newsapi.org/v2/top-headlines?country=in&apiKey={API_KEY}"

response = requests.get(url)
print("Status Code:", response.status_code)
print("Response Text:", response.text)  # Debug: Show full response

if response.status_code == 200:
    data = response.json()
    for article in data.get("articles", []):
        print(article.get("title"))
else:
    print("Failed to fetch news data.")
```

OUTPUT:

```
1\Q1_task1"
Status Code: 200
Response Text: {"status":"ok","totalResults":0,"articles":[]}
PS C:\Users\NIKHITHA\OneDrive\Desktop\AI> python -u "c:\Users\NIKHITHA\OneDrive\Desktop\AI\LABTEST-0
```

OBSERVATOIN:

This code fetches news headlines using a hardcoded API key, which is an insecure practice. While the code works and prints the status code and response, storing sensitive information like API keys.

TASK-02:

PROMPT: Modify the same code to fetch the API key securely from environment variables.

CODE:

```python
import os
import requests

API_KEY = os.getenv("NEWS_API_KEY")  # Securely fetch API key from environment

if not API_KEY:
    print("API key not found. Please set the NEWS_API_KEY environment variable.
else:
    url = f"https://newsapi.org/v2/top-headlines?country=in&apiKey={API_KEY}"
    response = requests.get(url)
    print("Status Code:", response.status_code)
    print("Response Text:", response.text)  # Debug: Show full response

    if response.status_code == 200:
        data = response.json()
        for article in data.get("articles", []):
            print(article.get("title"))
    else:
        print("Failed to fetch news data.")
```

OUTPUT:

```
PS C:\Users\NIKHITHA\OneDrive\Desktop\AI> $env:NEWS_API_KEY="5f1d21a865bb4371a691815
4507db1e3"
PS C:\Users\NIKHITHA\OneDrive\Desktop\AI>
PS C:\Users\NIKHITHA\OneDrive\Desktop\AI> python c:\Users\NIKHITHA\OneDrive\Desktop\
AI\LABTEST-01\Q1_task2
Status Code: 200
Response Text: {"status":"ok","totalResults":0,"articles":[]}
PS C:\Users\NIKHITHA\OneDrive\Desktop\AI>
```

OBSERVATOIN:

This code securely fetches the API key from an environment variable (NEWS_API_KEY) instead of hardcoding it. If the environment variable is not set, it prompts the user to set it. This approach is safer and more responsible because it keeps sensitive information out of the source code, reducing the risk of accidental exposure when sharing or publishing the code. The code also prints the status and response, helping with debugging.

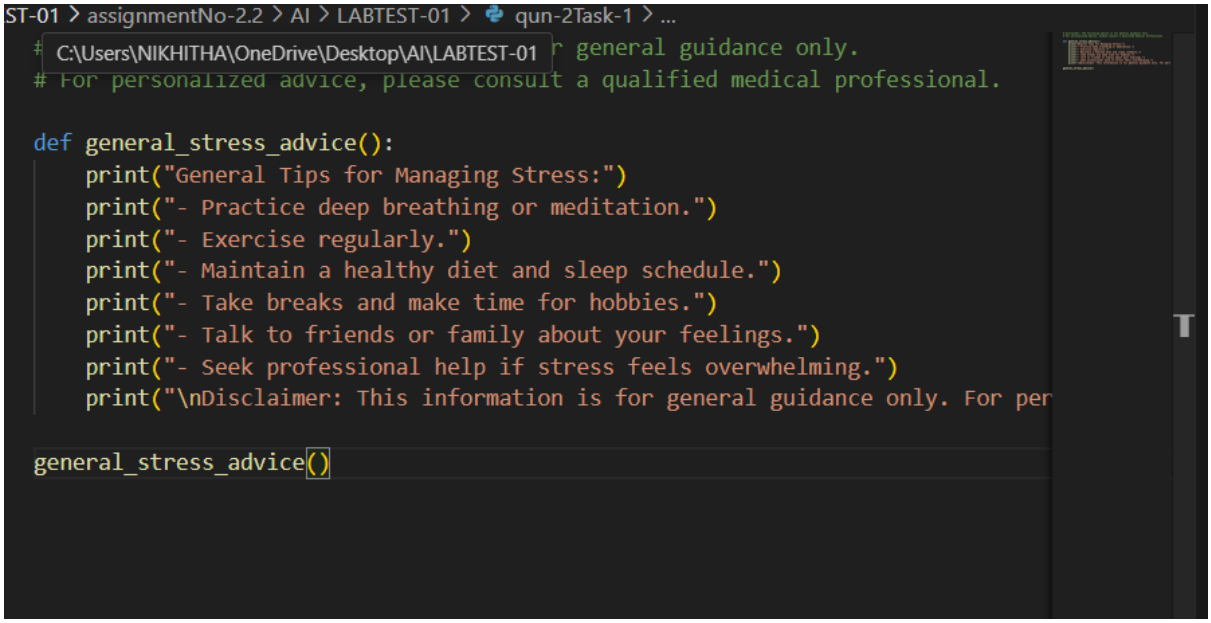
QUESTION-02

TASK-01

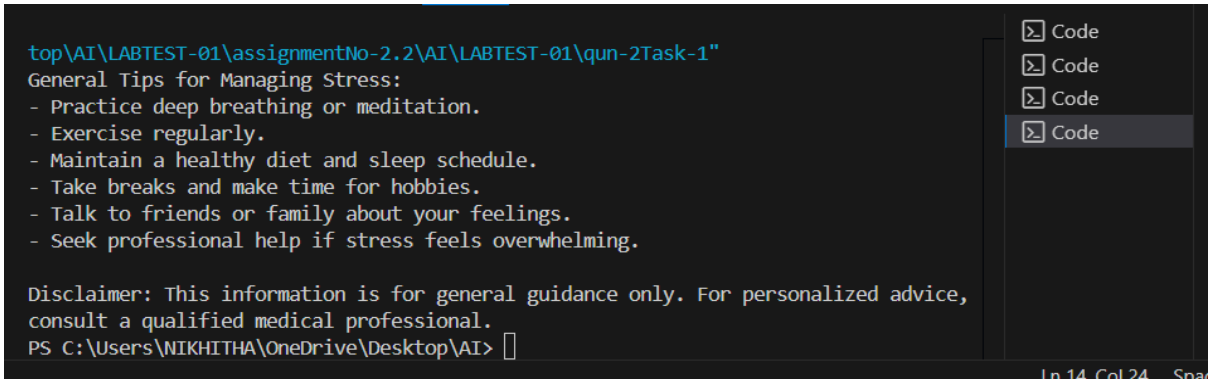
PROMPT:

generate code that reads a text file and counts the frequency of each word.

CODE:



OUTPUT:



OBSERVATOIN:

The code provides general advice for managing stress and includes a clear disclaimer recommending consultation with a qualified medical professional for personalized advice. The function general_stress_advice() prints practical stress management tips and the disclaimer when called. The code is simple, effective, and follows best practices for sharing general health guidance.