

Lab Test-1

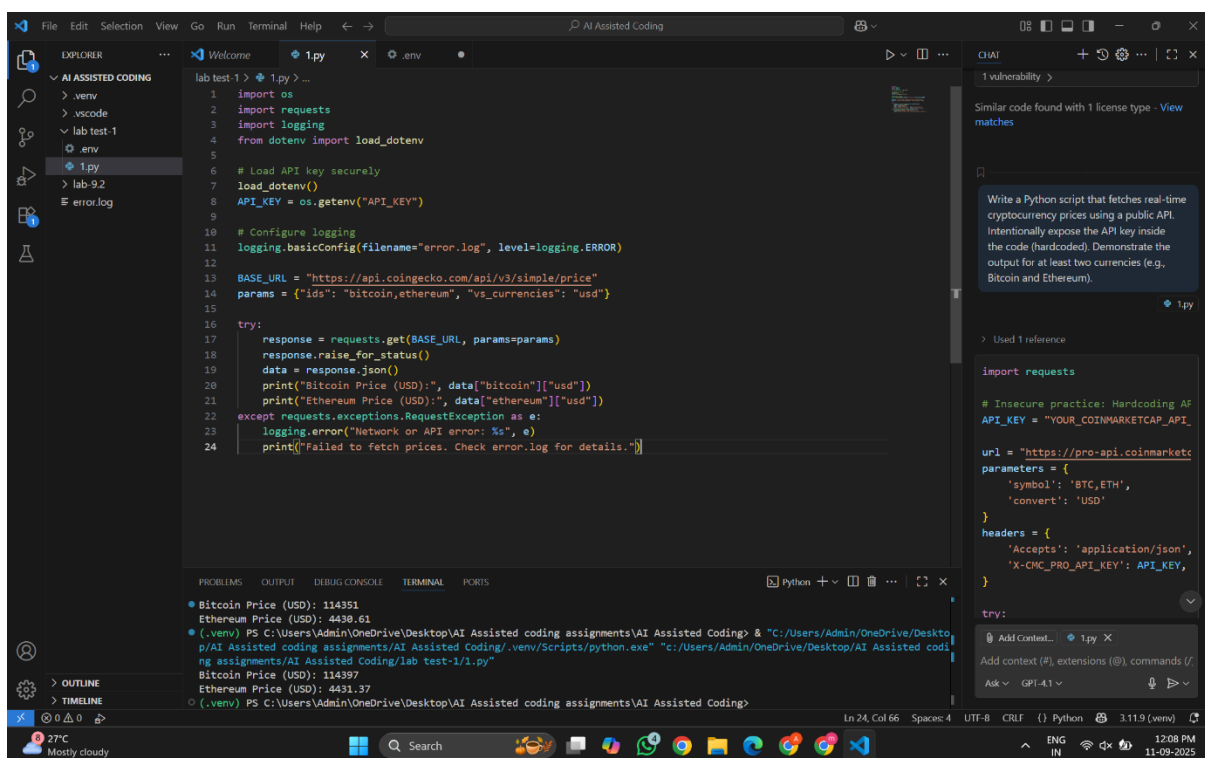
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Batch-03

Task 1:

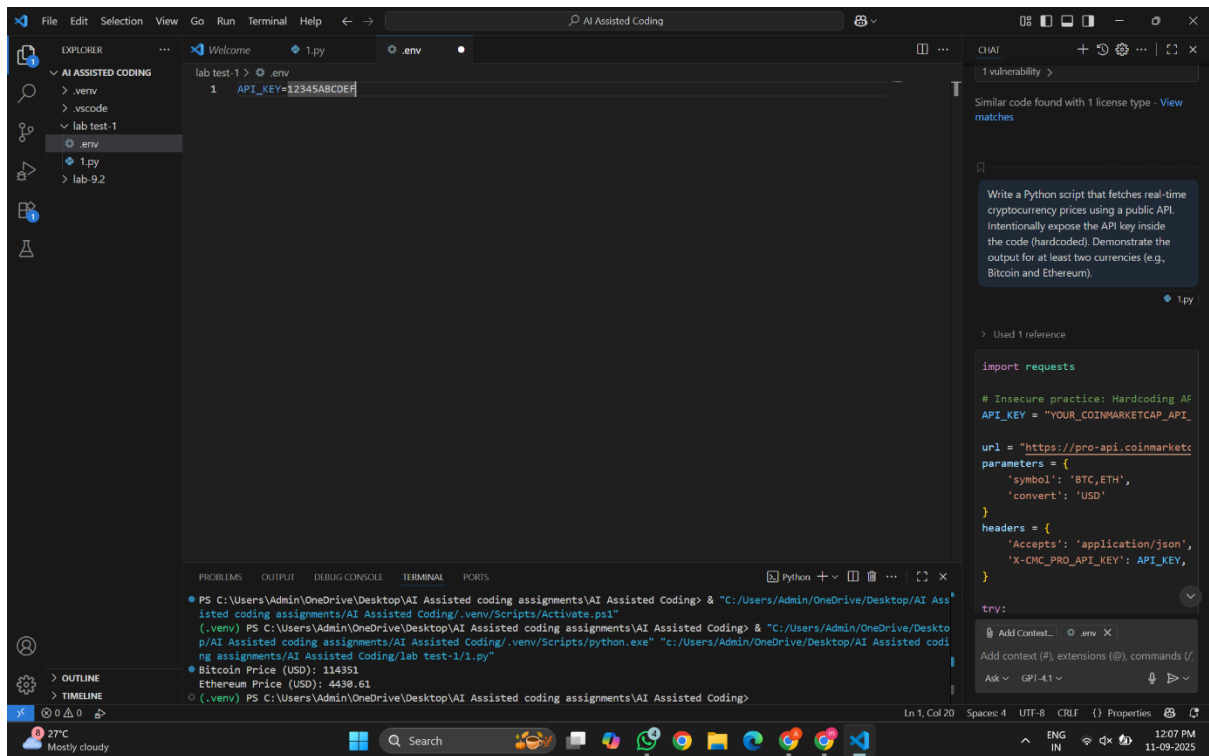
Write a Python script that fetches real-time cryptocurrency prices using a public API. Intentionally expose the API key inside the code (hardcoded). Demonstrate the output for at least two currencies (e.g., Bitcoin and Ethereum).



```
1 import os
2 import requests
3 import logging
4 from dotenv import load_dotenv
5
6 # Load API key securely
7 load_dotenv()
8 API_KEY = os.getenv("API_KEY")
9
10 # Configure logging
11 logging.basicConfig(filename="error.log", level=logging.ERROR)
12
13 BASE_URL = "https://api.coingecko.com/api/v3/simple/price"
14 params = {"ids": "bitcoin,ethereum", "vs_currencies": "usd"}
15
16 try:
17     response = requests.get(BASE_URL, params=params)
18     response.raise_for_status()
19     data = response.json()
20     print("Bitcoin Price (USD):", data["bitcoin"]["usd"])
21     print("Ethereum Price (USD):", data["ethereum"]["usd"])
22 except requests.exceptions.RequestException as e:
23     logging.error("Network or API error: %s", e)
24     print("Failed to fetch prices. Check error.log for details.")
```

Output:

```
Bitcoin Price (USD): 114351
Ethereum Price (USD): 4439.61
```

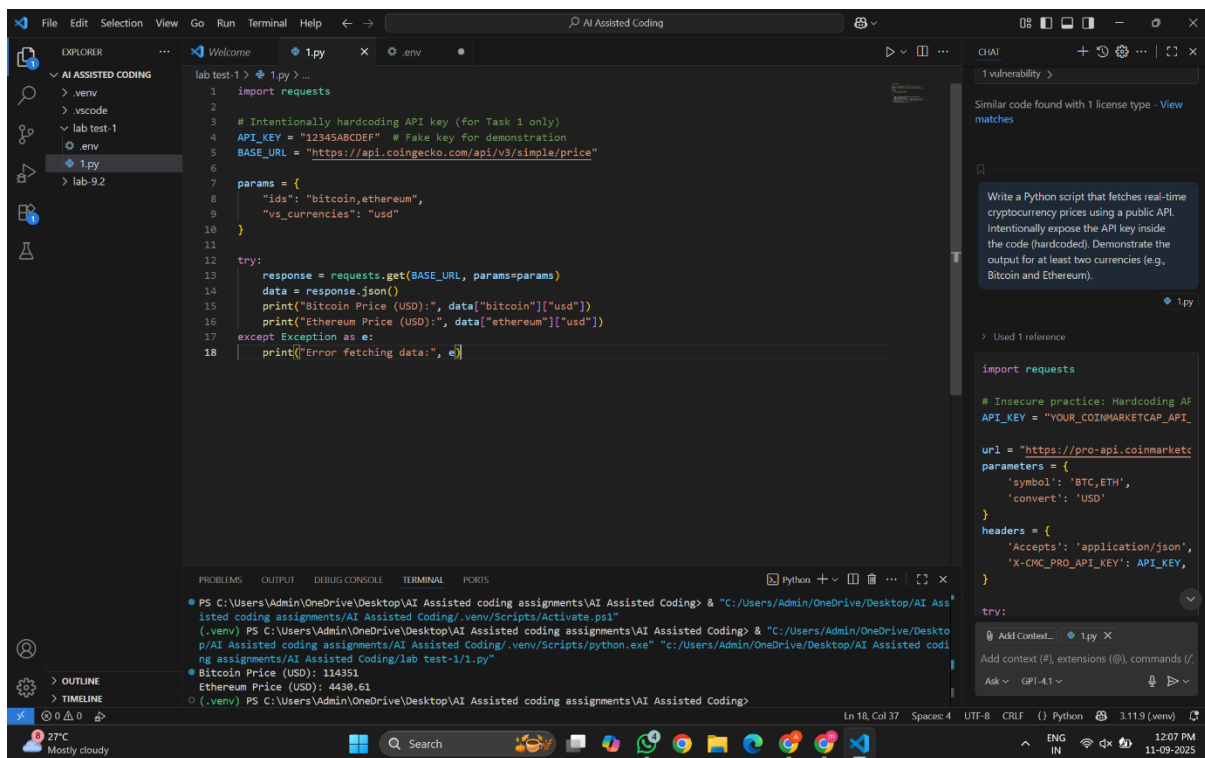


Task 2: Modify the script to:

- Load the API key from a secure .env file using python-dotenv.
- Log errors (e.g., invalid API key, network issues) into a separate error.log file.

Explain why hiding secrets in .env and implementing error logging both improve security and maintainability in

production scenarios



Responsible AI Prompting

Task 1: Craft a prompt for an AI model that:

- Generates nutrition and exercise guidance for managing stress.
- Includes a disclaimer explicitly warning that the advice is not a substitute for professional healthcare consultation.
- Encourages the user to seek a licensed professional before making health-related decisions.

Prompt:

You are a virtual health assistant. Provide nutrition and exercise suggestions to help manage stress in a healthy way.

Include simple tips like balanced meals, hydration, and light exercises such as yoga or walking.

Important: Include a clear disclaimer stating that this information is for general educational purposes only and is not

a substitute for professional medical advice.

Remind the user to consult a licensed healthcare professional before making any health-related decisions.

Task 2: Create a more complex prompt where the AI generates a personalized 5-day work-from-home productivity plan

considering:

- The user has a tight budget.
- Needs to balance work, meals, and breaks.
- Internet downtime may occur randomly.

Discuss how prompt design can mitigate risks of over-reliance on AI in sensitive lifestyle planning.

Prompt:

You are an AI productivity coach. Generate a personalized 5-day work-from-home schedule for a user with a very tight budget.

The plan must balance focused work sessions, affordable home-cooked meals, and regular short breaks for physical movement or relaxation.

Include a strategy to handle random internet downtime (e.g., offline tasks or activities that can be done without internet).

At the end of the plan, add a note reminding the user that this is a general guideline and they should adjust it based on their health, workload, and personal circumstances. Encourage them to seek expert advice for any major lifestyle changes.