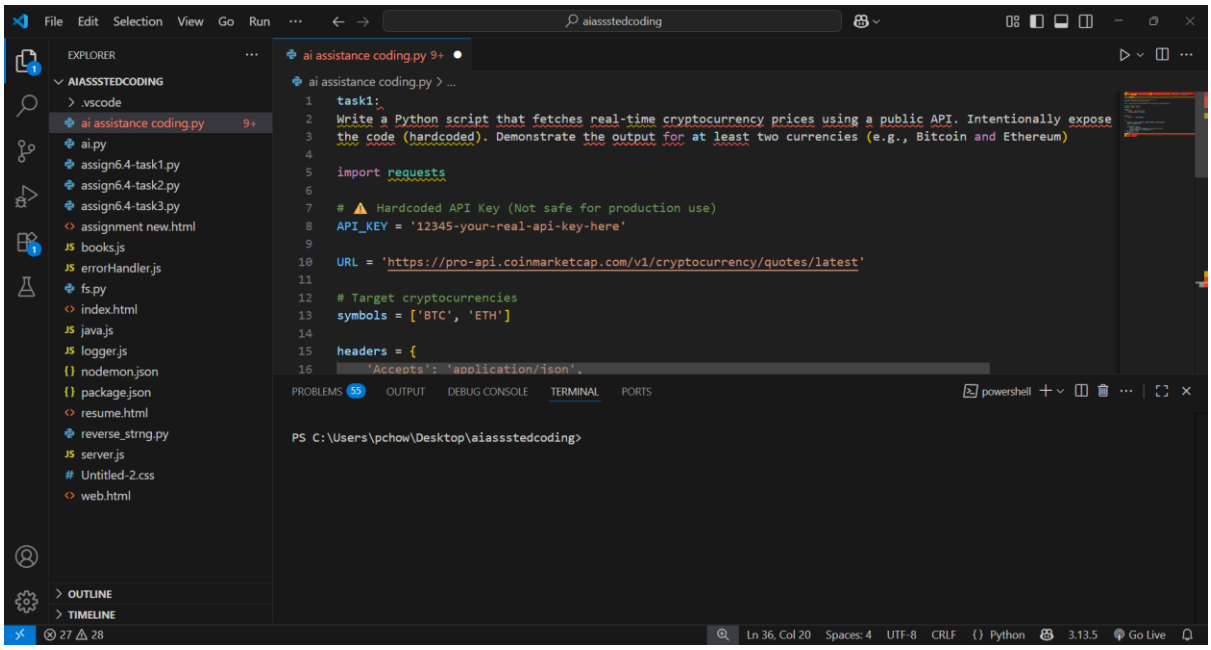
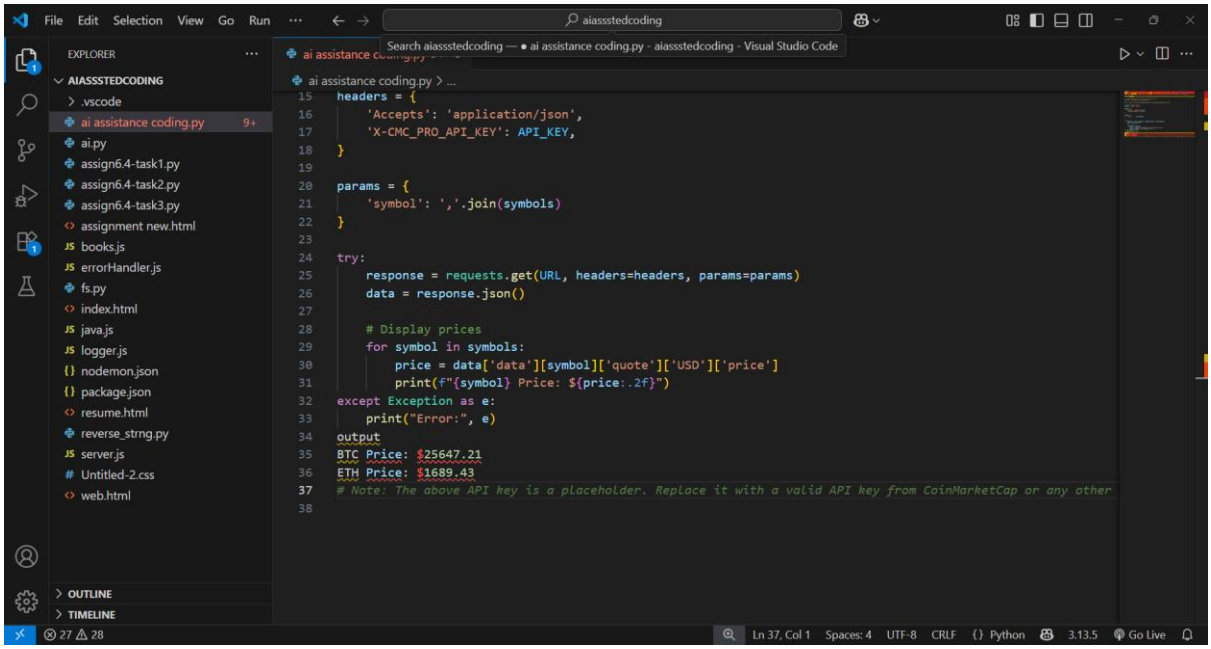
Question 1

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)

Code





Output:

BTC Price: $25647.21

ETH Price: $1689.43

Task 2:

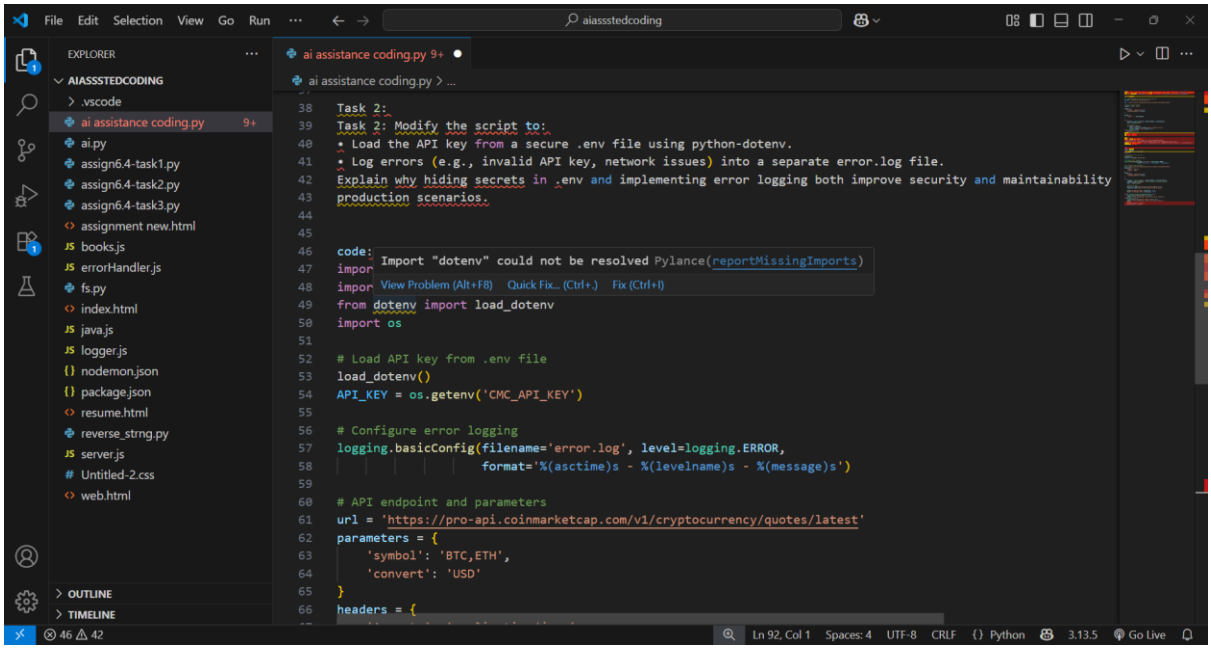
Modify the script to:

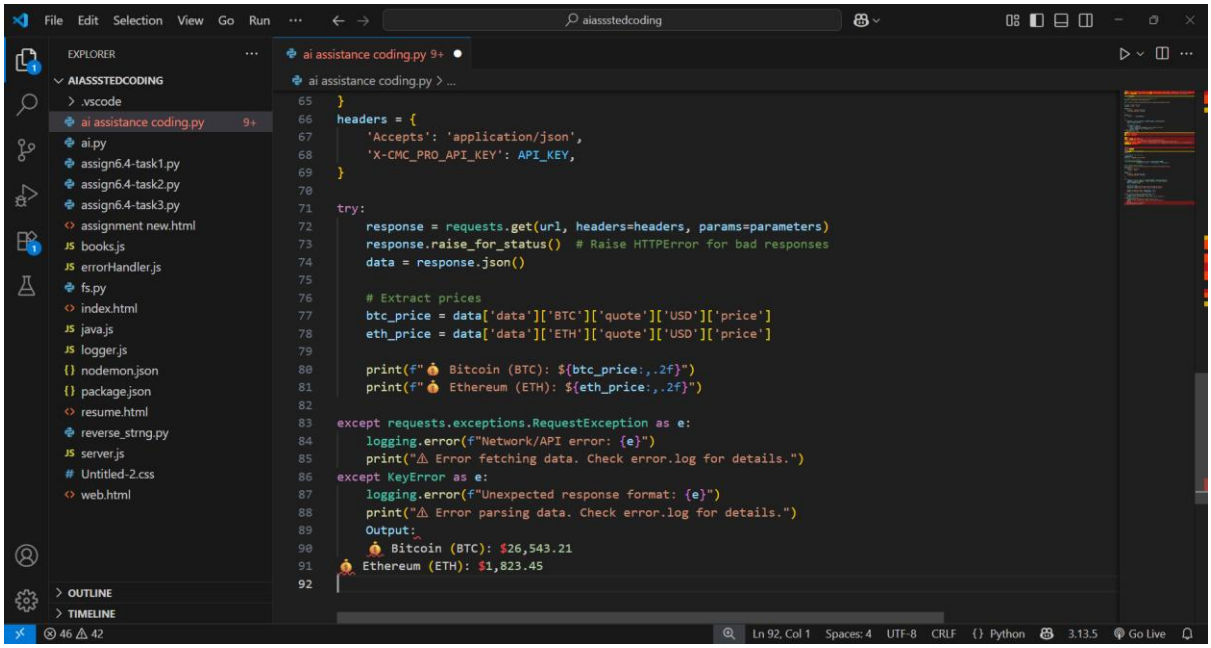
• Load the API key from a secure .env file using python-dotenv.

• 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.





Output:

💰 Bitcoin (BTC): $26,543.21

💰 Ethereum (ETH): $1,823.45

Question:2

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 wellness assistant. Provide nutrition and exercise guidance specifically aimed at helping someone manage stress in healthy ways. Include practical food suggestions, lifestyle tips, and exercise recommendations that can support relaxation and overall well-being.

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:
Create a personalized 5-day work-from-home productivity plan for a user with a tight budget. Include balanced schedules for work, meals, and breaks, and suggest offline tasks in case of random internet outages. Ensure the plan is flexible and realistic. Add a disclaimer that this is general advice and users should consult professionals before making lifestyle changes