

AI ASSISTED CODING

LAB TEST-01

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QUESTION-01:

TASK-01:

Write a short Python code that fetches news data using an API key. First, hardcode the key inside the script (insecure practice).

PROMPT:

Generate a python code which fetches the news data using an API key in which the API key is included in the code statically.

CODE:

```

1 import requests
2
3 API_KEY = "b6d4cceb904c4cb0a56a96890dfb2c06" # Replace with your actual API key from https://newsapi.org
4 NEWS_API_URL = "https://newsapi.org/v2/top-headlines"
5 PARAMS = {
6     "country": "us",
7     "apiKey": API_KEY
8 }
9
10 def fetch_news():
11     response = requests.get(NEWS_API_URL, params=PARAMS)
12     if response.status_code == 200:
13         data = response.json()
14         articles = data.get("articles", [])
15         for idx, article in enumerate(articles, 1):
16             print(f"{idx}. {article.get('title')}")
17             print(f"    Source: {article.get('source', {}).get('name')}")
18             print(f"    URL: {article.get('url')}\n")
19     else:
20         print(f"Failed to fetch news: {response.status_code}")
21
22 if __name__ == "__main__":
23     fetch_news()

```

OUTPUT:

```

PS C:\Users\ramch\OneDrive\Desktop\ai> & C:/Users/ramch/AppData/Local/Programs/Python/Python313/python.exe c:/Users/ramch/OneDrive/Desktop/ai/labtest1.py
1. Israeli airstrikes targeting Iran-backed Houthi rock Yemen's capital - The Washington Post
   Source: The Washington Post
   URL: https://www.washingtonpost.com/world/2025/08/24/israel-gaza-yemen-houthi-rebels/e24913d8-80ed-11f0-a8f4-28ba053d904b_story.html
2. MONDAY'S BLOG: Stock Market Today: Dow Futures Tick Lower – Live Updates - The Wall Street Journal
   Source: The Wall Street Journal
   URL: https://www.wsj.com/livecoverage/stock-market-today-dow-sp-500-nasdaq-08-25-2025
3. First human case of flesh-eating screwworm parasite detected in the U.S. - NBC News
   Source: NBC News
   URL: https://www.nbcnews.com/news/us-news/first-human-case-flesh-eating-screwworm-parasite-detected-us-rcna226923
4. U.S. Treasury yields tick higher as investors look toward key inflation data later in the week - CNBC
   Source: CNBC
   URL: https://www.cnbc.com/2025/08/25/us-treasury-yields-after-fed-chair-powells-speech.html
5. Selena Gomez Shows off Her Curves During Cabo Trip - yahoo.com
   Source: Reality Tea
   URL: https://www.realitytea.com/2025/08/25/selena-gomez-cabo-trip-black-bikini-bachelorette/
6. Daniil Medvedev exits US Open after photographer incident on match point - Al Jazeera
   Source: Al Jazeera English
   URL: https://www.aljazeera.com/sports/2025/8/25/daniil-medvedev-exits-us-open-after-photographer-incident-on-match-point
7. Wes Moore trades barbs with Trump over threat to send "troops" to Maryland - Axios
   Source: Axios
   URL: https://www.axios.com/2025/08/24/trump-troops-wes-moore-maryland
8. California wine country wildfire nears 7,000 acres, mandatory evacuations ordered - ABC News
   Source: ABC News
   URL: https://abcnews.go.com/US/firefighters-battle-wildfire-californias-napa-valley/story?id\u003d124925904
9. U.K. migrant protests spark angry confrontations as government scrambles to respond - NPR
   Source: NPR
   URL: https://www.npr.org/2025/08/25/nx-s1-5515313/uk-britain-immigration-protests-asylum
10. Rotated and rolling again: Sounders slam Sporting KC - Sounder at Heart
   Source: Sounder At Heart

```

OBSERVATION:

From the code we observe that the API key is inserted statically inserted in the code and the output is generated according to the requirement of our city.

TASK-02:

Modify the same code to fetch the API key securely from environment variables. Explain why this method is more responsible and safer.

PROMPT:

Generate the python code that fetches the news from the API key using the secured environment variables.

```
labtest1.py > ...
1  import requests
2  import os
3
4  NEWS_API_URL = "https://newsapi.org/v2/top-headlines"
5  API_KEY = os.environ.get("NEWS_API_KEY") # Fetch API key securely from environment variable
6
7  if not API_KEY:
8      API_KEY = input("API key not found in environment. Please enter your NewsAPI API key: ")
9      if not API_KEY:
10         raise ValueError("API key is required to fetch news.")
11
12  PARAMS = {
13      "country": "us",
14      "apiKey": API_KEY
15  }
16
17  def fetch_news():
18      response = requests.get(NEWS_API_URL, params=PARAMS)
19      if response.status_code == 200:
20          data = response.json()
21          articles = data.get("articles", [])
22          for idx, article in enumerate(articles, 1):
23              print(f"{idx}. {article.get('title')}")
24              print(f"    Source: {article.get('source', {}).get('name')}")
25              print(f"    URL: {article.get('url')}\n")
26      else:
27          print(f"Failed to fetch news: {response.status_code}")
28
29  if __name__ == "__main__":
30      fetch_news()
```

OUTPUT:

```

PS C:\Users\ramch\OneDrive\Desktop\ai> & C:\Users\ramch\AppData\Local\Programs\Python\Python313\python.exe c:/Users/ramch/OneDrive/Desktop/ai/labtest1.py
API key not found in environment. Please enter your NewsAPI API key: b6d4cce904c4cb0a56a9689dfb2c86
1. Israeli airstrikes targeting Iran-backed Houthis rock Yemen's capital - The Washington Post
Source: The Washington Post
URL: https://www.washingtonpost.com/world/2025/08/24/israel-gaza-yemen-houthi-rebels/e24913d8-80ed-11f0-a8f4-28ba053d904b_story.html
2. MONDAY'S BLOG: Stock Market Today: Dow Futures Tick Lower – Live Updates - The Wall Street Journal
Source: The Wall Street Journal
URL: https://www.wsj.com/livecoverage/stock-market-today-dow-sp-500-nasdaq-08-25-2025
3. First human case of flesh-eating screwworm parasite detected in the U.S. - NBC News
Source: NBC News
URL: https://www.nbcnews.com/news/us-news/first-human-case-flesh-eating-screwworm-parasite-detected-us-rcna226923
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URL: https://www.cnbc.com/2025/08/25/us-treasury-yields-after-fed-chair-powells-speech.html
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Source: Reality Tea
URL: https://www.realitytea.com/2025/08/25/selena-gomez-cabo-trip-black-bikini-bachelorette/
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Source: Al Jazeera English
URL: https://www.aljazeera.com/sports/2025/8/25/daniil-medvedev-exits-us-open-after-photographer-incident-on-match-point
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Source: Axios
URL: https://www.axios.com/2025/08/24/trump-troops-wes-moore-maryland

```

OBSERVATION:

In this code the API key taken as input to make the code more efficient and secure whereas in the previous task the API key is given statically which leads to several issues.

QUESTION-02:

TASK-01:

Design a safe prompt that ensures AI responds with:

- General advice only.
- A disclaimer recommending consultation with a doctor.

PROMPT:

Generate prompts which are safer to ensure the AI claims by general advice and a disclaimer recommending consultation with a doctor.

OUTPUT:

1. Give me a general advice for safe programming practices. Please avoid specific code examples and focus on broad, universally applicable recommendation.

2. Provide general health advice but make sure to include a disclaimer that recommends consulting a doctor or qualified health care professional for any medical concerns.

OBSERVATION:

From the above prompts we can observe that AI can give both the general prompts and also disclaimer things to avoid the upcoming disasters.

TASK-02:

Write a prompt that generates a 7-day travel itinerary for Delhi considering budget and weather.

PROMPT:

Generate a prompt for 7-day travel plan for delhi considering budget and weather.

OUTPUT:

Generate a detailed 7-day travel itinerary for Delhi, India. Please consider the current weather conditions and suggest activities that are suitable for the season. Also, ensure the itinerary is budget-friendly, including recommendations for affordable accommodation, food, and transportation.

OBSERVATION:

The prompt given by github copilot generates an efficient itinerary for delhi,India by considering all the needs given by the user.