

# AI ASSISTED CODING

Roll no.:2503A51L41

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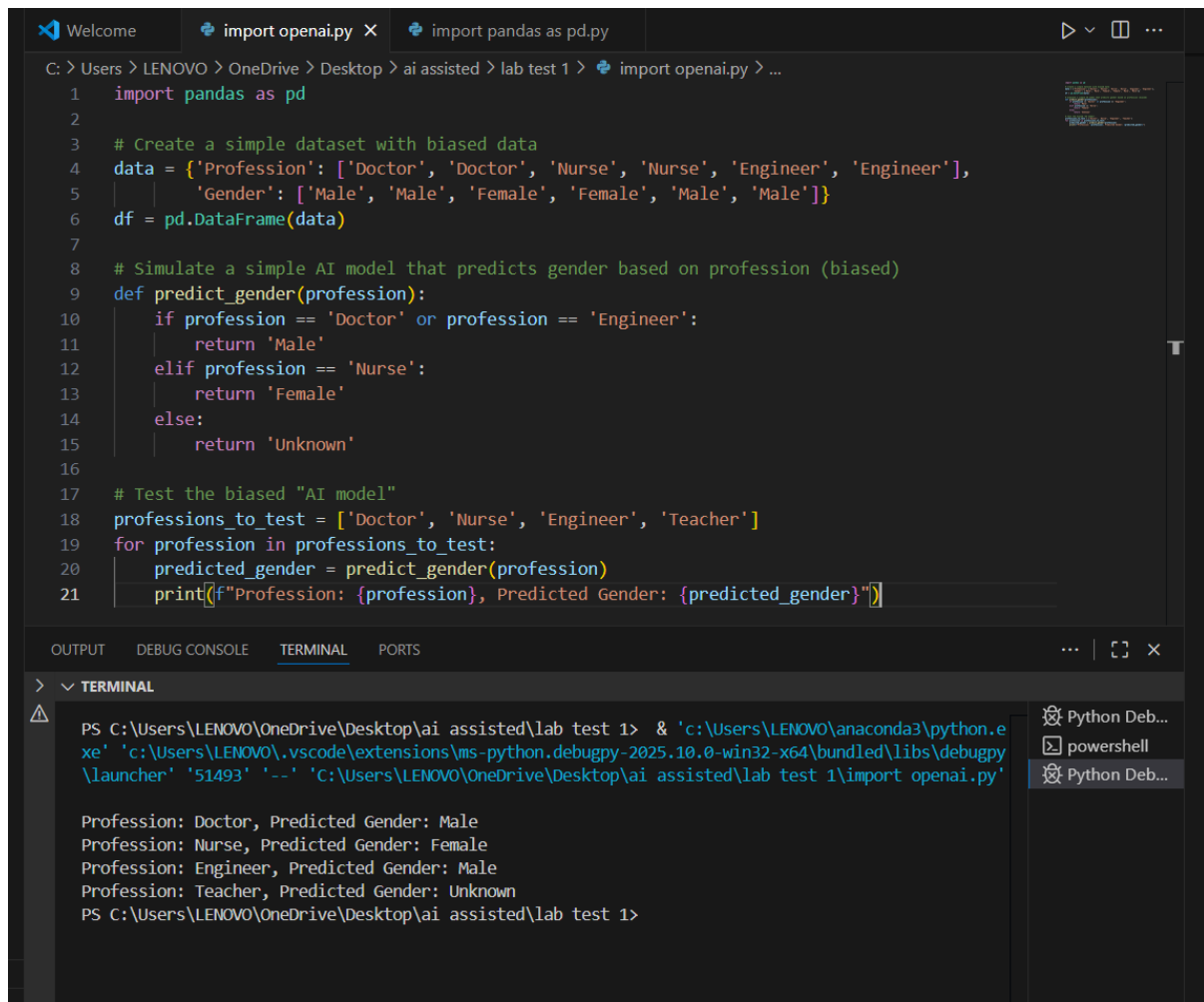
Batch: 24BTCAICSB20

## Q1:Task 1:

Prompt:

Write a prompt that unintentionally leads to biased or harmful AI output (e.g.,stereotype-based questions). Run it once to observe the risk.

Code generated:



```
1 import pandas as pd
2
3 # Create a simple dataset with biased data
4 data = {'Profession': ['Doctor', 'Doctor', 'Nurse', 'Nurse', 'Engineer', 'Engineer'],
5         'Gender': ['Male', 'Male', 'Female', 'Female', 'Male', 'Male']}
6 df = pd.DataFrame(data)
7
8 # Simulate a simple AI model that predicts gender based on profession (biased)
9 def predict_gender(profession):
10     if profession == 'Doctor' or profession == 'Engineer':
11         return 'Male'
12     elif profession == 'Nurse':
13         return 'Female'
14     else:
15         return 'Unknown'
16
17 # Test the biased "AI model"
18 professions_to_test = ['Doctor', 'Nurse', 'Engineer', 'Teacher']
19 for profession in professions_to_test:
20     predicted_gender = predict_gender(profession)
21     print(f"Profession: {profession}, Predicted Gender: {predicted_gender}")
```

PS C:\Users\LENOVO\OneDrive\Desktop\ai assisted\lab test 1> & 'c:\Users\LENOVO\anaconda3\python.exe' 'c:\Users\LENOVO\.vscode\extensions\ms-python.debugpy-2025.10.0-win32-x64\bundled\libs\debugpy\launcher' '51493' '--' 'c:\Users\LENOVO\OneDrive\Desktop\ai assisted\lab test 1\import openai.py'

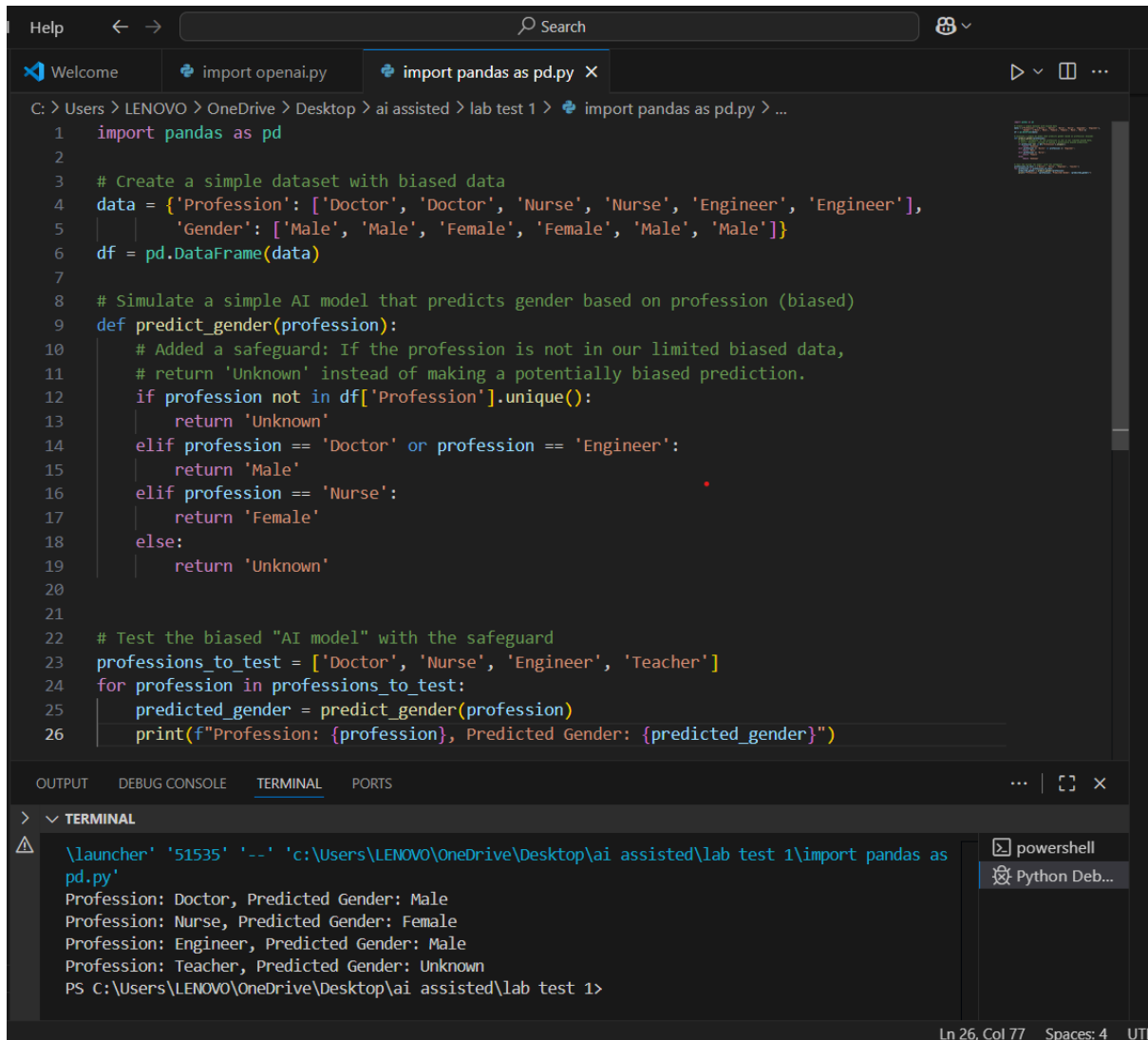
Profession: Doctor, Predicted Gender: Male  
Profession: Nurse, Predicted Gender: Female  
Profession: Engineer, Predicted Gender: Male  
Profession: Teacher, Predicted Gender: Unknown  
PS C:\Users\LENOVO\OneDrive\Desktop\ai assisted\lab test 1>

## Task 2:

### Prompt:

Rewrite the prompt with ethical safeguards (neutral language, inclusivity, fairness). Compare both results and explain how responsible prompt design reduces harm.

### Code generated:



```
Help  ← →  Search  [icon]
Welcome  import openai.py  import pandas as pd.py X
C: > Users > LENOVO > OneDrive > Desktop > ai assisted > lab test 1 > import pandas as pd.py > ...
1  import pandas as pd
2
3  # Create a simple dataset with biased data
4  data = {'Profession': ['Doctor', 'Doctor', 'Nurse', 'Nurse', 'Engineer', 'Engineer'],
5         'Gender': ['Male', 'Male', 'Female', 'Female', 'Male', 'Male']}
6  df = pd.DataFrame(data)
7
8  # Simulate a simple AI model that predicts gender based on profession (biased)
9  def predict_gender(profession):
10     # Added a safeguard: If the profession is not in our limited biased data,
11     # return 'Unknown' instead of making a potentially biased prediction.
12     if profession not in df['Profession'].unique():
13         return 'Unknown'
14     elif profession == 'Doctor' or profession == 'Engineer':
15         return 'Male'
16     elif profession == 'Nurse':
17         return 'Female'
18     else:
19         return 'Unknown'
20
21
22  # Test the biased "AI model" with the safeguard
23  professions_to_test = ['Doctor', 'Nurse', 'Engineer', 'Teacher']
24  for profession in professions_to_test:
25     predicted_gender = predict_gender(profession)
26     print(f"Profession: {profession}, Predicted Gender: {predicted_gender}")

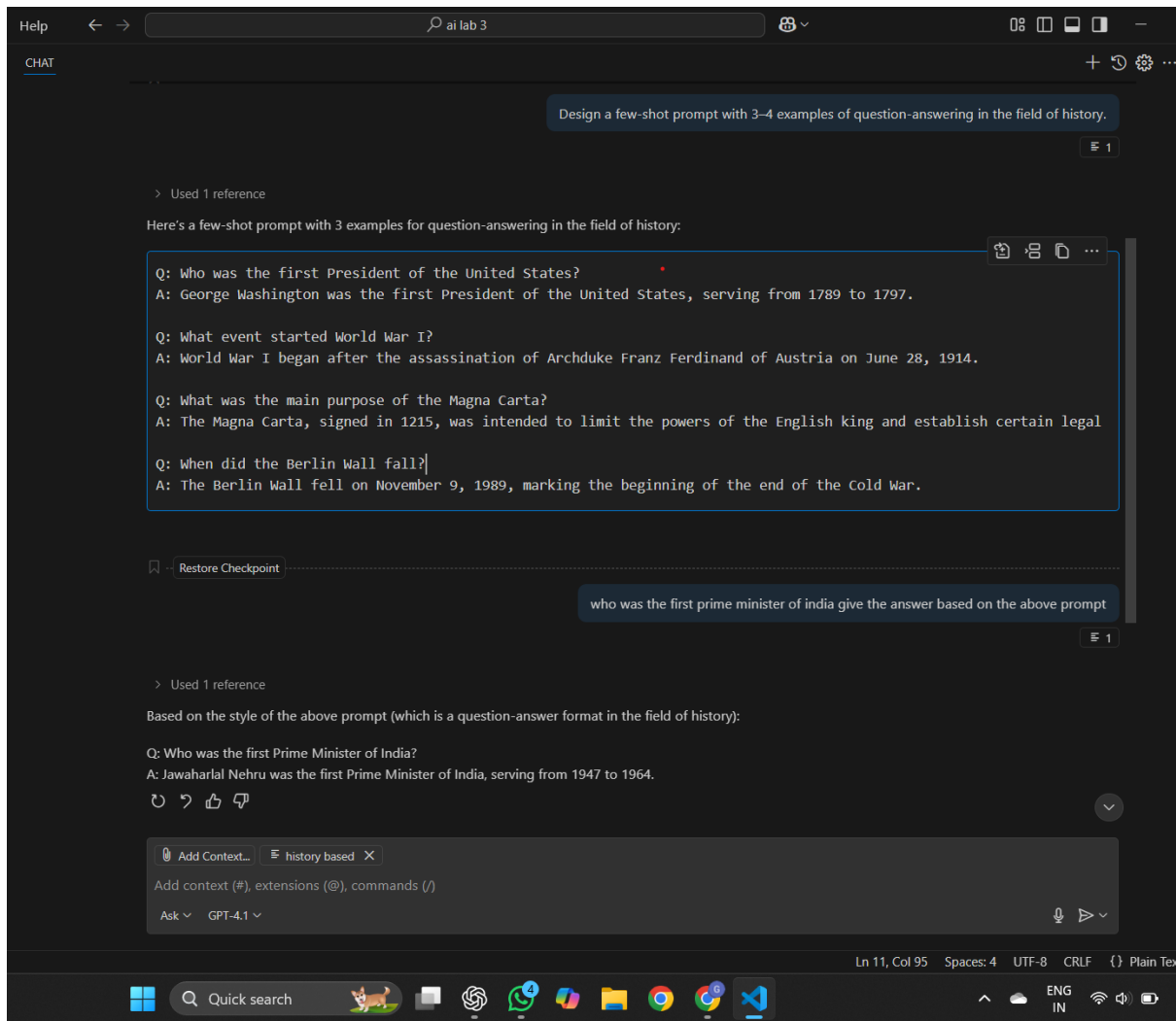
OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
>  TERMINAL
[icon] \launcher" '51535' '--' 'c:\Users\LENOVO\OneDrive\Desktop\ai assisted\lab test 1\import pandas as pd.py'
Profession: Doctor, Predicted Gender: Male
Profession: Nurse, Predicted Gender: Female
Profession: Engineer, Predicted Gender: Male
Profession: Teacher, Predicted Gender: Unknown
PS C:\Users\LENOVO\OneDrive\Desktop\ai assisted\lab test 1>
[icon] powershell
[icon] Python Deb...
Ln 26, Col 77  Spaces: 4  UTF
```

## Task1:

### Prompt:

Design a few-shot prompt with 3–4 examples of question-answering in the field of history. Then, give the AI a new question and record its answer.

### Code generated:



## Q2: Task2:

Prompt: Experiment by changing the number of examples (e.g., from 3 to 5). Compare how the number of examples impacts output quality.

Code generated:

ai lab test > history based

12

13

14

15

16

17

18

19 Q: What are the major periods and landmark events in India's historical timeline?

20

21 A: Major periods in India's history include the Indus Valley Civilization, the Vedic Age, the Maurya and Gupta Empires, the Medieval period with the Delhi Sultanate and Mughal Empire, the Colonial period under British rule, and the Modern era after independence in 1947. Landmark events include the rise of the Mauryan Empire under Ashoka, the arrival of Islam, the establishment of the Mughal Empire, the First War of Independence in 1857, and India's independence on August 15, 1947.