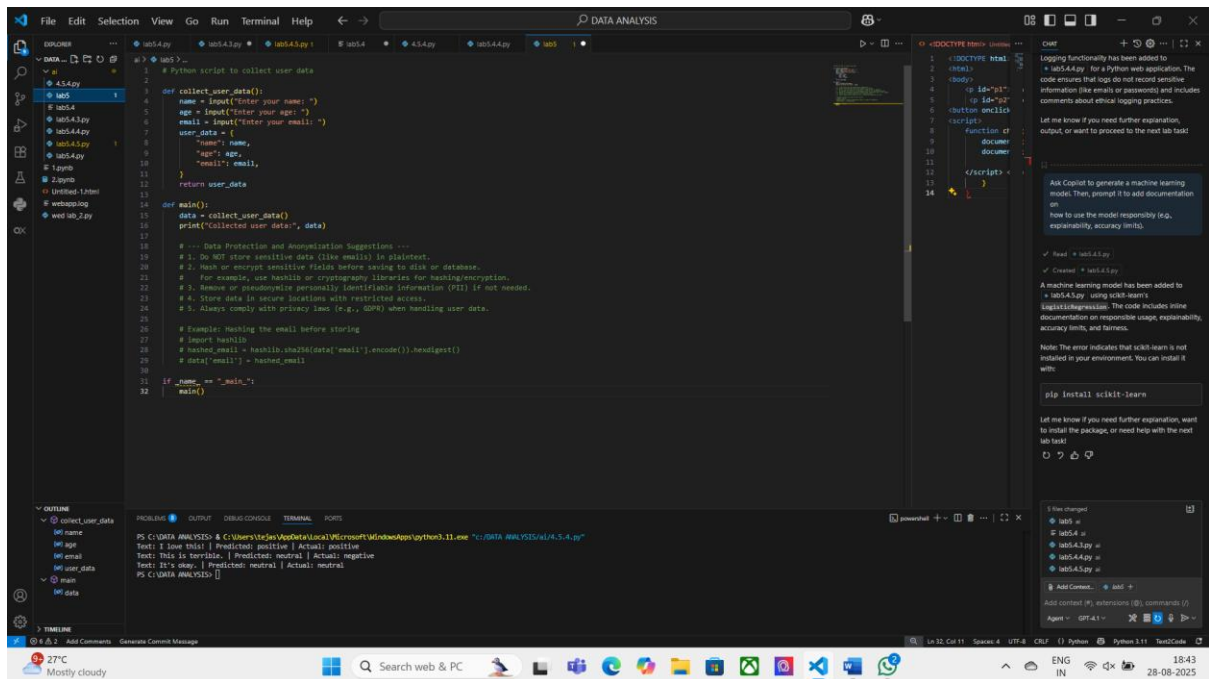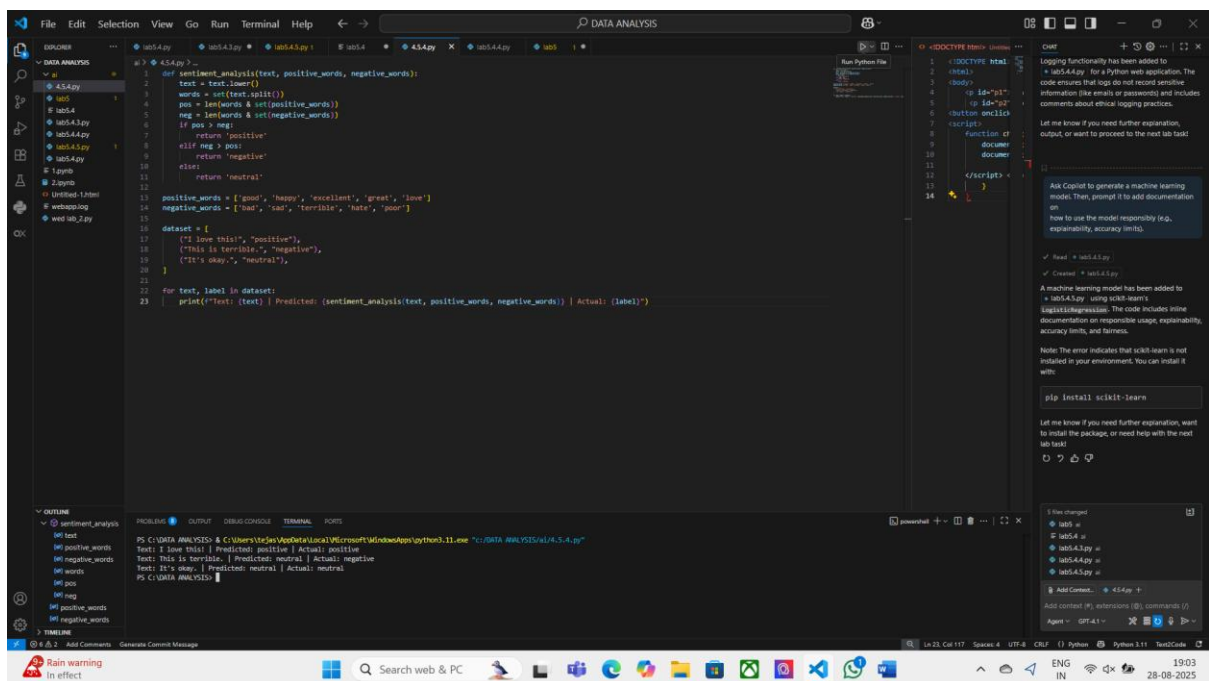# ASSIGNMENT:5.4
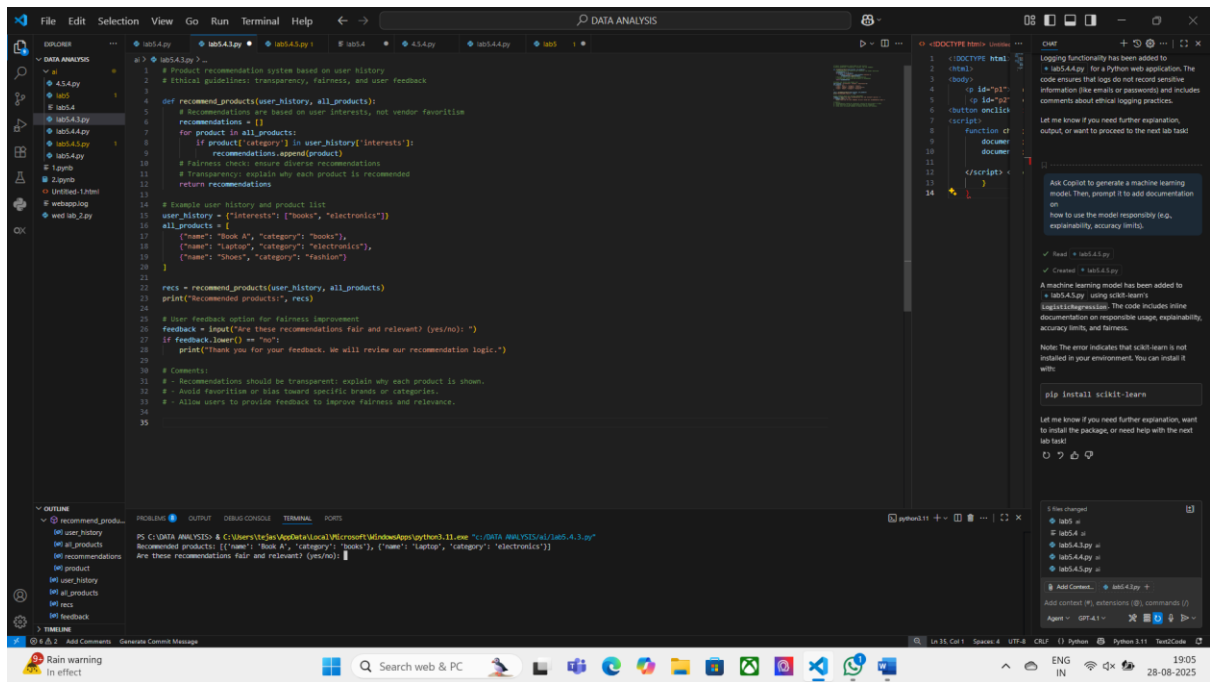
## Task:1

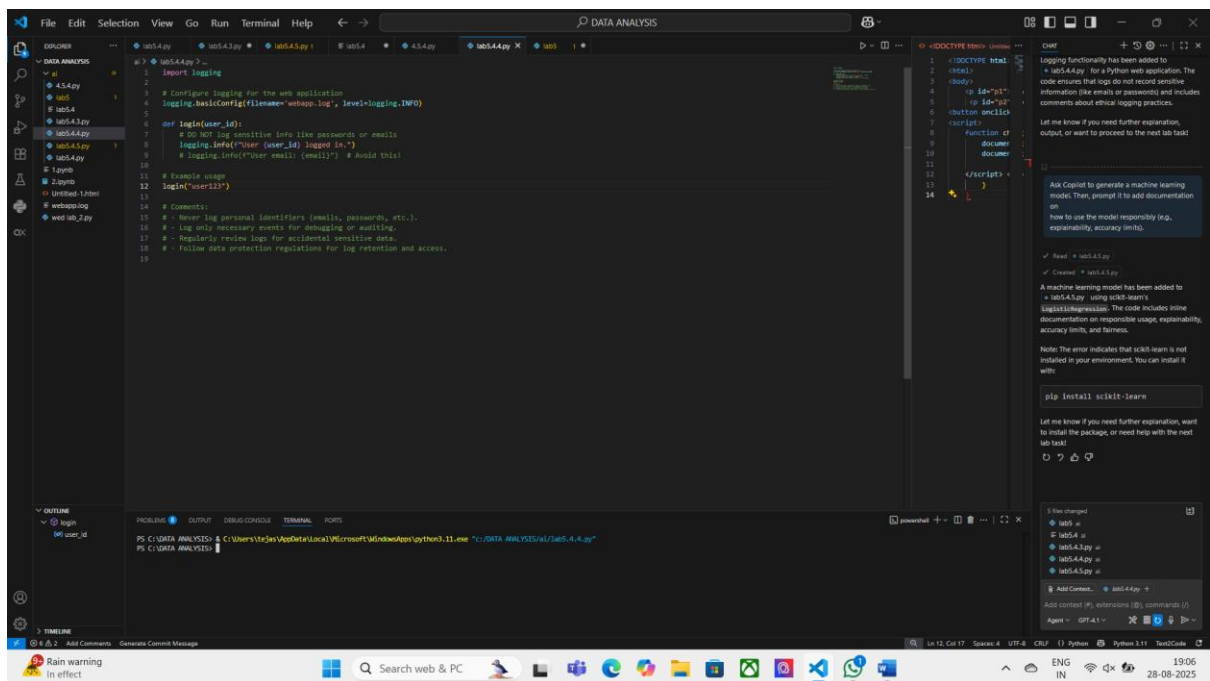

## Task:2



## Task:3

Task:4



Task:5

```python
# Example machine learning model
model = LogisticRegression()

# Inline documentation:
"""
Responsible Usage:
- Ensure data is representative and unbiased.
- Explain model predictions to users (use model.explain() if available).
- Do not use model for decisions affecting human rights without review.
- Accuracy is limited by training data; always validate results.
- Document limitations and fairness considerations.
"""

# Example training and prediction (not runnable without data)
# X_train, y_train = ...
# model.fit(X_train, y_train)
# predictions = model.predict(X_test)

# Comments:
# - Always document model limitations and intended use.
# - Provide transparency about how predictions are made.
# - Regularly audit for fairness and accuracy.
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

```
PS C:\DATA ANALYSIS> & C:/Users/tejas/AppData/Local/Microsoft/WindowsApps/python3.11.exe "c:/DATA ANALYSIS/ai/lab5.4.5.py"
Traceback (most recent call last):
  File "c:\DATA ANALYSIS\ai\lab5.4.5.py", line 1, in <module>
    from sklearn.linear_model import LogisticRegression
ModuleNotFoundError: No module named 'sklearn'
PS C:\DATA ANALYSIS>
```

Logging functionality has been added to lab5.4.py for a Python web application. The code ensures that logs do not record sensitive information (like emails or passwords) and includes comments about ethical logging practices.

Let me know if you need further explanation, output, or want to proceed to the next lab task!

Ask Copilot to generate a machine learning model. Then, prompt it to add documentation on how to use the model responsibly (e.g., explainability, accuracy limits).

✓ Read  lab5.4.5.py
✓ Created  lab5.4.5.py

A machine learning model has been added to lab5.4.5.py using scikit-learn's LogisticRegression. The code includes inline documentation on responsible usage, explainability, accuracy limits, and fairness.

Note: The error indicates that scikit-learn is not installed in your environment. You can install it with:

```
pip install scikit-learn
```

Let me know if you need further explanation, want to install the package, or need help with the next lab task!