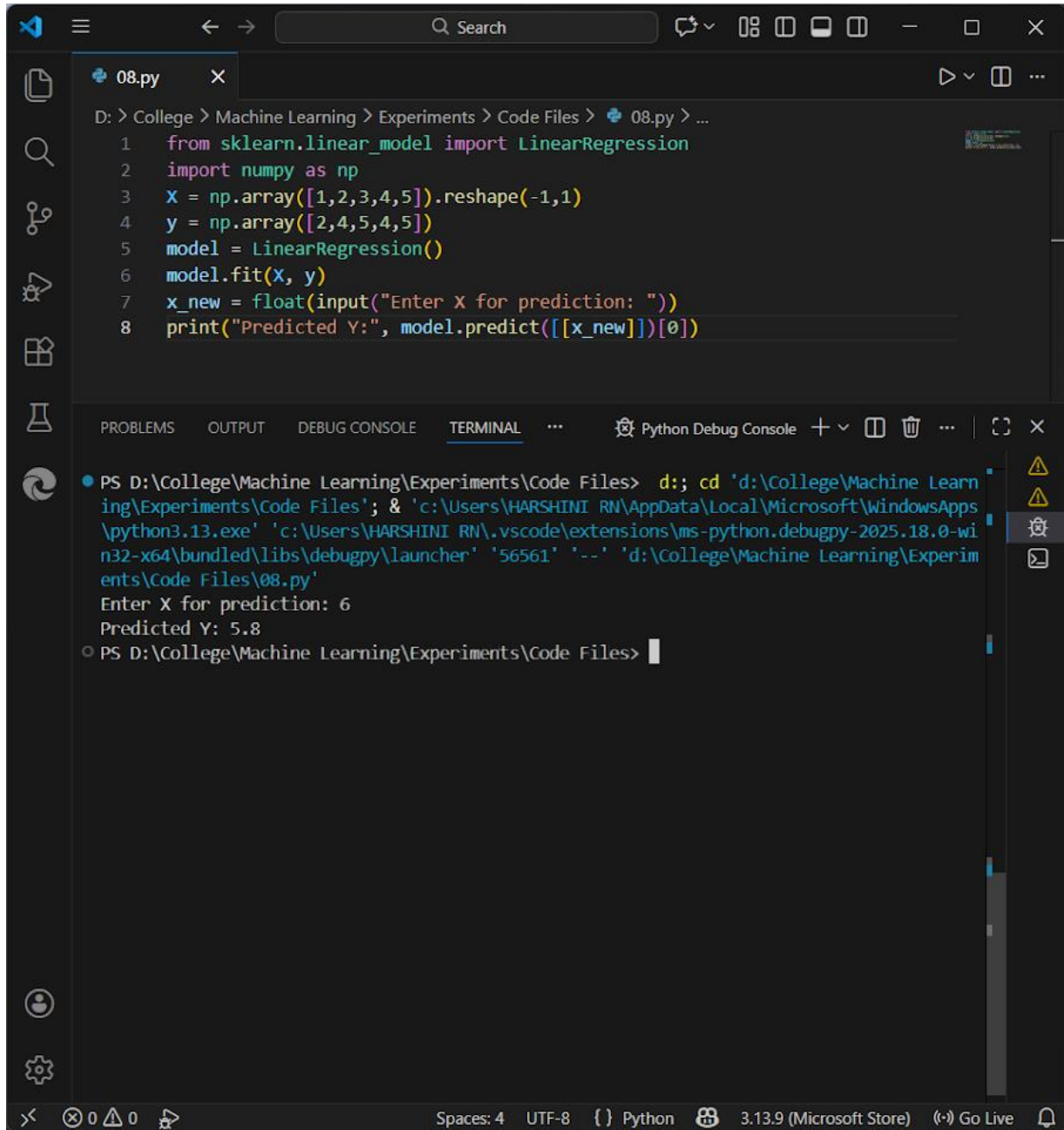


EXPERIMENT – 8

OUTPUT:



The image shows a Visual Studio Code editor window with a Python file named `08.py` open. The code implements a linear regression model using `sklearn.linear_model.LinearRegression` and `numpy`. It defines feature `X` and target `y` arrays, fits a model, and takes user input for a prediction.

```
1 from sklearn.linear_model import LinearRegression
2 import numpy as np
3 X = np.array([1,2,3,4,5]).reshape(-1,1)
4 y = np.array([2,4,5,4,5])
5 model = LinearRegression()
6 model.fit(X, y)
7 x_new = float(input("Enter X for prediction: "))
8 print("Predicted Y:", model.predict([[x_new]])[0])
```

The terminal output shows the command prompt execution of the script, the user input `6`, and the resulting prediction `5.8`.

```
PS D:\College\Machine Learning\Experiments\Code Files> d:; cd 'd:\College\Machine Learning\Experiments\Code Files'; & 'c:\Users\HARSHINI RN\AppData\Local\Microsoft\WindowsApps\python3.13.exe' 'c:\Users\HARSHINI RN\.vscode\extensions\ms-python.debugpy-2025.18.0-win32-x64\bundled\libs\debugpy\launcher' '56561' '--' 'd:\College\Machine Learning\Experiments\Code Files\08.py'
Enter X for prediction: 6
Predicted Y: 5.8
PS D:\College\Machine Learning\Experiments\Code Files>
```

The status bar at the bottom indicates the file is a Python script (3.13.9) using UTF-8 encoding with 4 spaces for indentation.