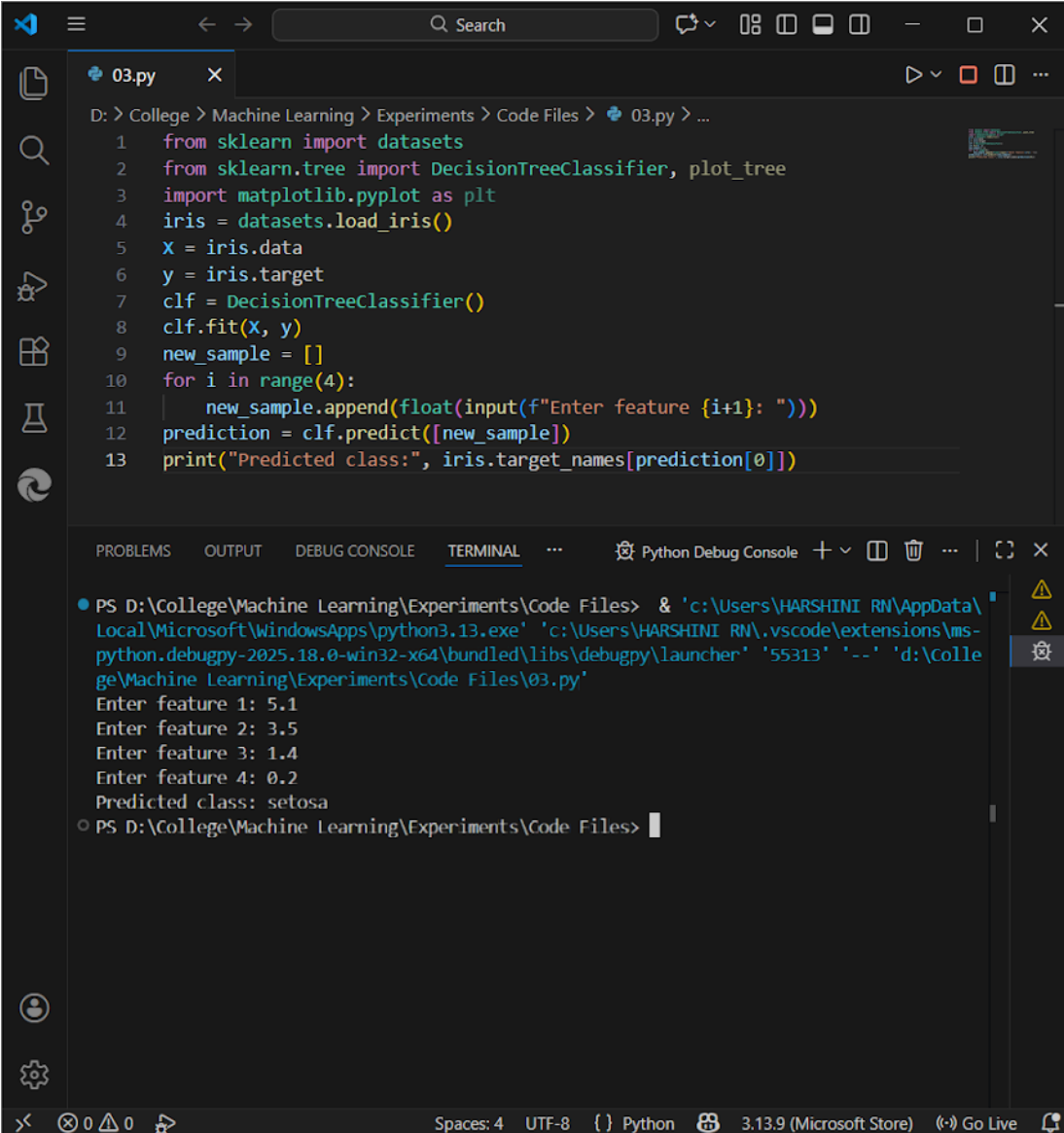


EXPERIMENT – 3

OUTPUT:



The image shows a Visual Studio Code (VS Code) editor window with a Python file named `03.py` open. The code implements a decision tree classifier for the Iris dataset. The terminal window at the bottom shows the execution of the script, which prompts the user to enter four features and outputs the predicted class as 'setosa'.

```
03.py
D: > College > Machine Learning > Experiments > Code Files > 03.py > ...
1  from sklearn import datasets
2  from sklearn.tree import DecisionTreeClassifier, plot_tree
3  import matplotlib.pyplot as plt
4  iris = datasets.load_iris()
5  X = iris.data
6  y = iris.target
7  clf = DecisionTreeClassifier()
8  clf.fit(X, y)
9  new_sample = []
10 for i in range(4):
11     new_sample.append(float(input(f"Enter feature {i+1}: ")))
12 prediction = clf.predict([new_sample])
13 print("Predicted class:", iris.target_names[prediction[0]])
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL Python Debug Console

```
PS 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' '55313' '--' 'd:\College\Machine Learning\Experiments\Code Files\03.py'
Enter feature 1: 5.1
Enter feature 2: 3.5
Enter feature 3: 1.4
Enter feature 4: 0.2
Predicted class: setosa
PS D:\College\Machine Learning\Experiments\Code Files>
```

Spaces: 4 UTF-8 Python 3.13.9 (Microsoft Store) Go Live