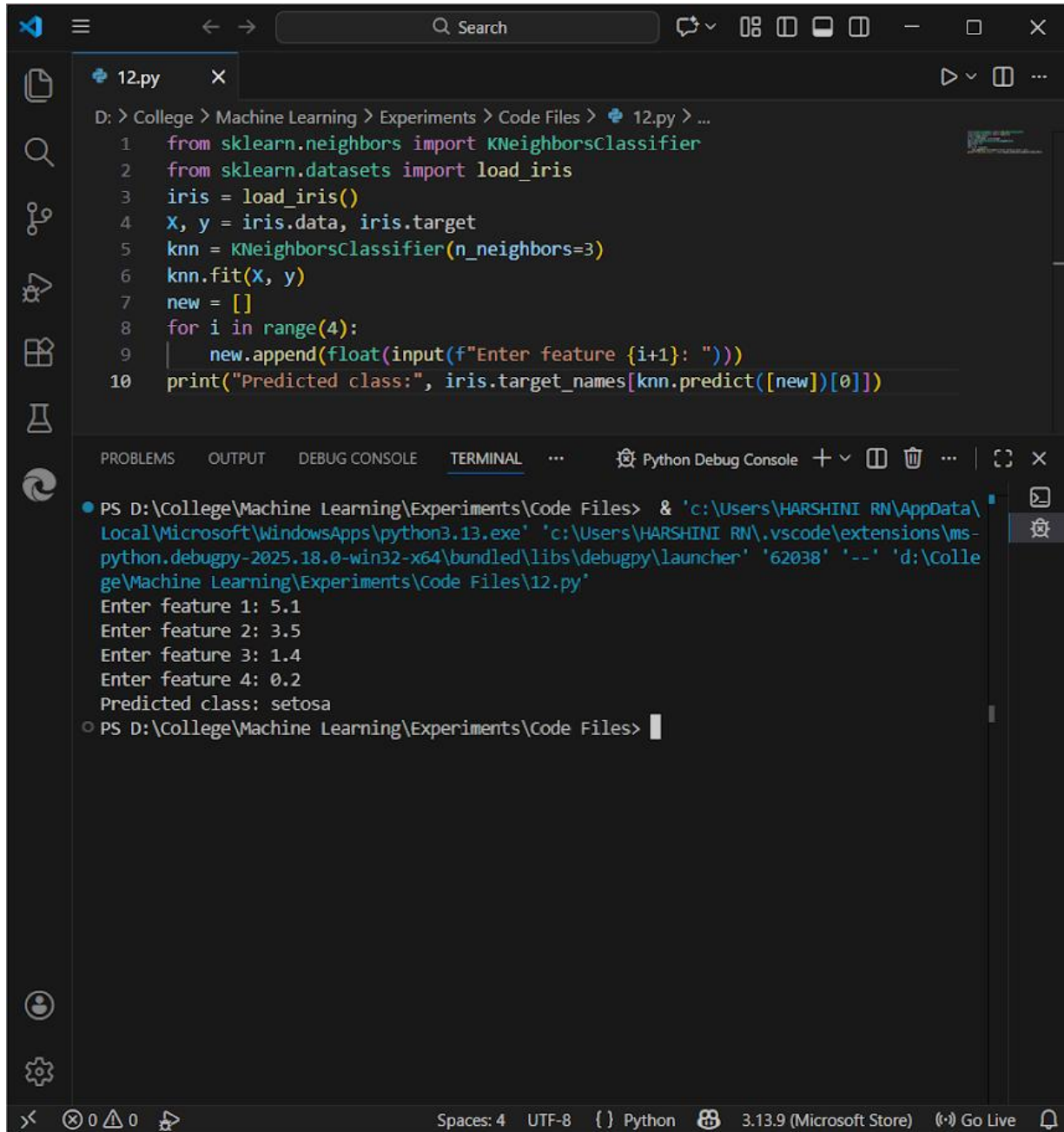


EXPERIMENT – 12

OUTPUT:



The image shows a Visual Studio Code (VS Code) editor window with a Python file named `12.py` open. The code implements a K-Nearest Neighbors (KNN) classifier using `sklearn.neighbors.KNeighborsClassifier` and `sklearn.datasets.load_iris`. It loads the Iris dataset, splits it into features (`X`) and targets (`y`), and trains a classifier with `n_neighbors=3`. The script then prompts the user to enter four features, which are stored in a list `new`. Finally, it prints the predicted class for the input features.

```
1 from sklearn.neighbors import KNeighborsClassifier
2 from sklearn.datasets import load_iris
3 iris = load_iris()
4 X, y = iris.data, iris.target
5 knn = KNeighborsClassifier(n_neighbors=3)
6 knn.fit(X, y)
7 new = []
8 for i in range(4):
9     new.append(float(input(f"Enter feature {i+1}: ")))
10 print("Predicted class:", iris.target_names[knn.predict([new])[0]])
```

The terminal output shows the execution of the script. It displays the command prompt path, the execution command, and the user's input for the four features. The predicted class is `setosa`.

```
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' '62038' '--' 'd:\College\Machine Learning\Experiments\Code Files\12.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>
```

The status bar at the bottom indicates the file is encoded in UTF-8, uses 4 spaces for indentation, and is running Python 3.13.9 (Microsoft Store).