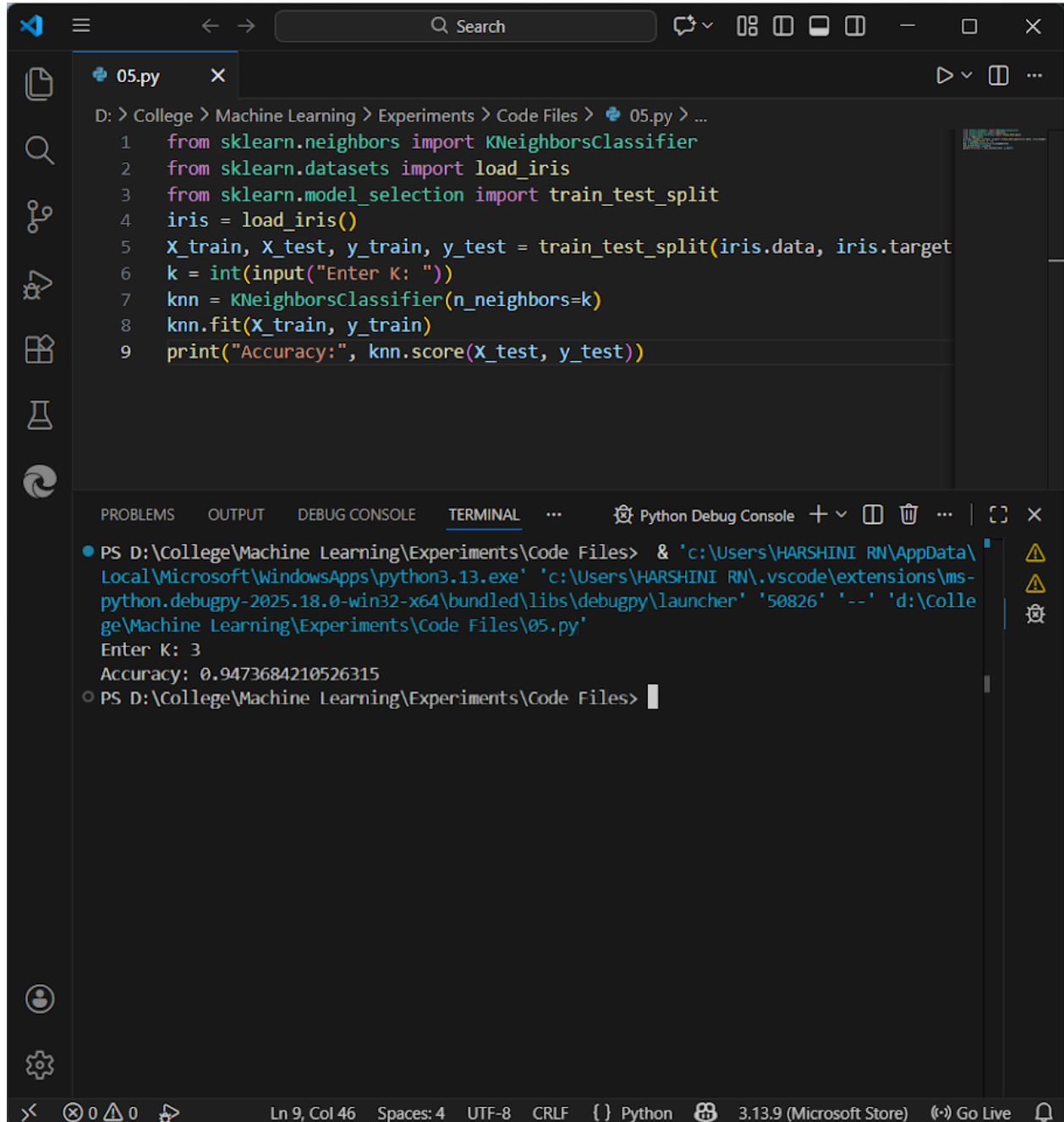


## EXPERIMENT – 5

OUTPUT:



The image shows a Visual Studio Code (VS Code) editor window with a Python file named `05.py` open. The file contains a K-Nearest Neighbors (KNN) classifier script. The script imports `KNeighborsClassifier` from `sklearn.neighbors`, `load_iris` from `sklearn.datasets`, and `train_test_split` from `sklearn.model_selection`. It loads the Iris dataset, splits it into training and testing sets, takes user input for the number of neighbors (`k`), fits the classifier, and prints the accuracy.

```
1 from sklearn.neighbors import KNeighborsClassifier
2 from sklearn.datasets import load_iris
3 from sklearn.model_selection import train_test_split
4 iris = load_iris()
5 X_train, X_test, y_train, y_test = train_test_split(iris.data, iris.target
6 k = int(input("Enter K: "))
7 knn = KNeighborsClassifier(n_neighbors=k)
8 knn.fit(X_train, y_train)
9 print("Accuracy:", knn.score(X_test, y_test))
```

The terminal output shows the execution of the script. It prompts for the value of `k`, which is entered as 3. The resulting accuracy is 0.9473684210526315.

```
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' '50826' '--' 'd:\College\Machine Learning\Experiments\Code Files\05.py'
Enter K: 3
Accuracy: 0.9473684210526315
PS D:\College\Machine Learning\Experiments\Code Files>
```

The status bar at the bottom indicates the file is at line 9, column 46, using UTF-8 encoding with CRLF line endings. The Python version is 3.13.9 (Microsoft Store).