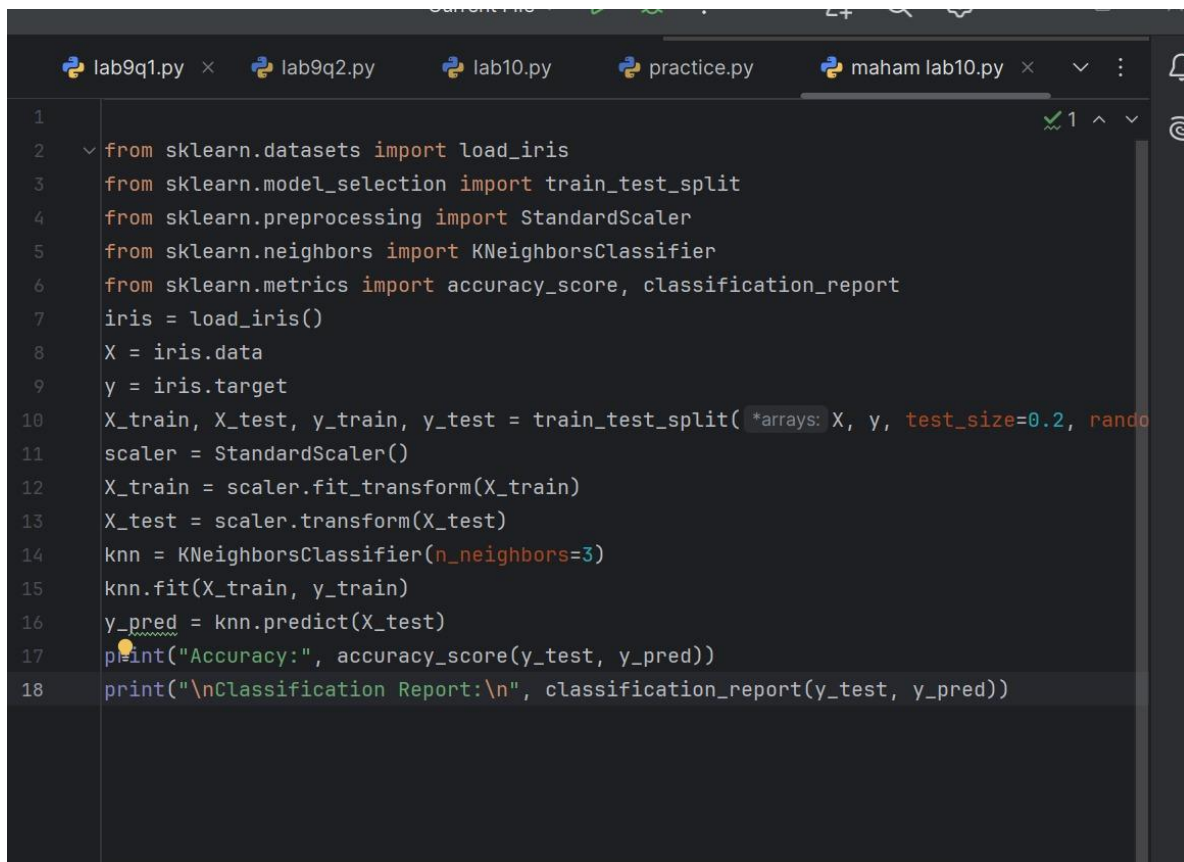


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Question # 1

Implement KNN classifier with Iris dataset.



```
1
2  from sklearn.datasets import load_iris
3  from sklearn.model_selection import train_test_split
4  from sklearn.preprocessing import StandardScaler
5  from sklearn.neighbors import KNeighborsClassifier
6  from sklearn.metrics import accuracy_score, classification_report
7  iris = load_iris()
8  X = iris.data
9  y = iris.target
10 X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)
11 scaler = StandardScaler()
12 X_train = scaler.fit_transform(X_train)
13 X_test = scaler.transform(X_test)
14 knn = KNeighborsClassifier(n_neighbors=3)
15 knn.fit(X_train, y_train)
16 y_pred = knn.predict(X_test)
17 print("Accuracy:", accuracy_score(y_test, y_pred))
18 print("\nClassification Report:\n", classification_report(y_test, y_pred))
```

```
C:\Users\MASTERCOMPUTERS\PycharmProjects\PythonProject\.venv\Scripts\python.exe "C:\Users\MASTERCOMPUTERS\PycharmProjects\PythonProject\PythonProject\main.py"
Accuracy: 1.0
```

Classification Report:

	precision	recall	f1-score	support
0	1.00	1.00	1.00	10
1	1.00	1.00	1.00	9
2	1.00	1.00	1.00	11
accuracy			1.00	30
macro avg	1.00	1.00	1.00	30
weighted avg	1.00	1.00	1.00	30

```
Process finished with exit code 0
```