CODE

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from sklearn import datasets
from sklearn.metrics import classification_report
from sklearn.metrics import accuracy_score
from sklearn.metrics import confusion_matrix
from sklearn.utils import shuffle
from sklearn.neighbors import KNeighborsClassifier
import numpy as np

cat = ["Iris setosa", "Iris versicolor", "Iris virginica"]

iris = datasets.load_iris()
iris_X = iris.data
iris_y = iris.target

target_names = np.unique(iris_y)

np.random.seed(0)
indices = np.random.permutation(len(iris_X))

iris_X_train = iris_X[indices[:-20]]
iris_y_train = iris_y[indices[:-20]]
iris_X_test = iris_X[indices[-20:]]
iris_y_test = iris_y[indices[-20:]]

neigh = KNeighborsClassifier(n_neighbors=3)

neigh.fit(iris_X_train, iris_y_train)

predicted = neigh.predict(iris_X_test)
actual = iris_y_test

print("Predicted classes: ")
print(predicted)
print("Actual classes:")
print(actual)

print(classification_report(actual, predicted, target_names=None))
print("Confusion matrix is: \n")
print(confusion_matrix(actual, predicted))

print("\n\nAccuracy is: ")
print(accuracy_score(actual, predicted))
```

OUTPUT

Predicted classes:
[2 2 2 1 0 1 2 2 0 1 1 2 1 0 0 0 2 1 2 0]
Actual classes:
[2 2 1 1 0 1 2 2 0 1 1 1 1 0 0 0 2 1 2 0]

	precision	recall	f1-score	support
0	1.00	1.00	1.00	6
1	1.00	0.75	0.86	8
2	0.75	1.00	0.86	6
avg / total	0.93	0.90	0.90	20

Confusion matrix is:

[[6 0 0]
 [0 6 2]
 [0 0 6]]

Accuracy is:
0.9