```python
from sklearn.model_selection import train_test_split
from sklearn.neighbors import KNeighborsClassifier
from sklearn import datasets


iris=datasets.load_iris()
print("Iris Data set loaded...")
```

        Iris Data set loaded...

```python
x_train, x_test, y_train, y_test = train_test_split(iris.data,iris.target,test_size=0.2)
print("Dataset is split into training and testing...")
print("Size of trainng data and its label",x_train.shape,y_train.shape)
print("Size of trainng data and its label",x_test.shape, y_test.shape)
```

        Dataset is split into training and testing...
        Size of trainng data and its label (120, 4) (120,)
        Size of trainng data and its label (30, 4) (30,)

```python
classifier = KNeighborsClassifier(n_neighbors=1)


classifier.fit(x_train, y_train)
```

        KNeighborsClassifier(n_neighbors=1)

```python
y_pred=classifier.predict(x_test)


print("Results of Classification using K-nn with K=1 ")
for r in range(0,len(x_test)):
    print(" Sample:", str(x_test[r]), " Actual-label:", str(y_test[r]), " Predicted-label:
    print("Classification Accuracy :" , classifier.score(x_test,y_test))
```

        Results of Classification using K-nn with K=1
         Sample: [5.  3.4 1.5 0.2]  Actual-label: 0  Predicted-label: 0
        Classification Accuracy : 1.0
         Sample: [6.6 2.9 4.6 1.3]  Actual-label: 1  Predicted-label: 1
        Classification Accuracy : 1.0
         Sample: [5.7 2.8 4.5 1.3]  Actual-label: 1  Predicted-label: 1
        Classification Accuracy : 1.0
         Sample: [6.  2.9 4.5 1.5]  Actual-label: 1  Predicted-label: 1
        Classification Accuracy : 1.0
         Sample: [4.8 3.4 1.9 0.2]  Actual-label: 0  Predicted-label: 0
        Classification Accuracy : 1.0
         Sample: [7.7 2.8 6.7 2. ]  Actual-label: 2  Predicted-label: 2
        Classification Accuracy : 1.0
         Sample: [6.6 3.  4.4 1.4]  Actual-label: 1  Predicted-label: 1
        Classification Accuracy : 1.0
         Sample: [7.6 3.  6.6 2.1]  Actual-label: 2  Predicted-label: 2
        Classification Accuracy : 1.0
         Sample: [6.4 2.9 4.3 1.3]  Actual-label: 1  Predicted-label: 1
        Classification Accuracy : 1.0
```

```
 Sample: [4.7 3.2 1.3 0.2]  Actual-label: 0  Predicted-label: 0
Classification Accuracy : 1.0
 Sample: [5.  3.  1.6 0.2]  Actual-label: 0  Predicted-label: 0
Classification Accuracy : 1.0
 Sample: [6.9 3.2 5.7 2.3]  Actual-label: 2  Predicted-label: 2
Classification Accuracy : 1.0
 Sample: [6.3 3.4 5.6 2.4]  Actual-label: 2  Predicted-label: 2
Classification Accuracy : 1.0
 Sample: [5.4 3.  4.5 1.5]  Actual-label: 1  Predicted-label: 1
Classification Accuracy : 1.0
 Sample: [5.8 2.7 5.1 1.9]  Actual-label: 2  Predicted-label: 2
Classification Accuracy : 1.0
 Sample: [6.4 2.8 5.6 2.1]  Actual-label: 2  Predicted-label: 2
Classification Accuracy : 1.0
 Sample: [6.9 3.1 5.4 2.1]  Actual-label: 2  Predicted-label: 2
Classification Accuracy : 1.0
 Sample: [4.6 3.4 1.4 0.3]  Actual-label: 0  Predicted-label: 0
Classification Accuracy : 1.0
 Sample: [6.1 2.9 4.7 1.4]  Actual-label: 1  Predicted-label: 1
Classification Accuracy : 1.0
 Sample: [6.4 3.2 4.5 1.5]  Actual-label: 1  Predicted-label: 1
Classification Accuracy : 1.0
 Sample: [4.5 2.3 1.3 0.3]  Actual-label: 0  Predicted-label: 0
Classification Accuracy : 1.0
 Sample: [5.1 3.5 1.4 0.2]  Actual-label: 0  Predicted-label: 0
Classification Accuracy : 1.0
 Sample: [6.3 2.9 5.6 1.8]  Actual-label: 2  Predicted-label: 2
Classification Accuracy : 1.0
 Sample: [6.  3.4 4.5 1.6]  Actual-label: 1  Predicted-label: 1
Classification Accuracy : 1.0
 Sample: [6.3 3.3 6.  2.5]  Actual-label: 2  Predicted-label: 2
Classification Accuracy : 1.0
 Sample: [7.2 3.6 6.1 2.5]  Actual-label: 2  Predicted-label: 2
Classification Accuracy : 1.0
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Classification Accuracy : 1.0
```