```
from sklearn.model_selection import train_test_split
from sklearn.neighbors import KNeighborsClassifier
from sklearn.metrics import classification_report, confusion_matrix
from sklearn import datasets



iris=datasets.load_iris()


x = iris.data
y = iris.target


print ('sepal-length', 'sepal-width', 'petal-length', 'petal-width')
print(x)
print('class: 0-Iris-Setosa, 1- Iris-Versicolour, 2- Iris-Virginica')
print(y)
```

```
[5.1 2.5 3.  1.1]
 [5.7 2.8 4.1 1.3]
 [6.3 3.3 6.  2.5]
 [5.8 2.7 5.1 1.9]
 [7.1 3.  5.9 2.1]
 [6.3 2.9 5.6 1.8]
 [6.5 3.  5.8 2.2]
 [7.6 3.  6.6 2.1]
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 [7.2 3.6 6.1 2.5]
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 [6.9 3.1 5.4 2.1]
 [6.7 3.1 5.6 2.4]
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 [6.5 3.  5.2 2. ]
 [6.2 3.4 5.4 2.3]
 [5.9 3.  5.1 1.8]]
class: 0-Iris-Setosa, 1- Iris-Versicolour, 2- Iris-Virginica
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
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```

```
x_train, x_test, y_train, y_test = train_test_split(x,y,test_size=0.3)


classifier = KNeighborsClassifier(n_neighbors=5)
classifier.fit(x_train, y_train)
```

```
▾ KNeighborsClassifier
KNeighborsClassifier()
```

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

```
print('Confusion Matrix')
```

```
Confusion Matrix
```

```
print(confusion_matrix(y_test,y_pred))
```

```
[[16  0  0]
 [ 0 14  1]
 [ 0  0 14]]
```

```
print('Accuracy Metrics')
```

```
Accuracy Metrics
```

```
print(classification_report(y_test,y_pred))
```

```
              precision    recall  f1-score   support

           0       1.00      1.00      1.00        16
           1       1.00      0.93      0.97        15
           2       0.93      1.00      0.97        14

    accuracy                           0.98        45
   macro avg       0.98      0.98      0.98        45
weighted avg       0.98      0.98      0.98        45
```