Iris Data set loaded...

	sepal length (cm)	sepal width (cm)	petal length (cm)	petal width (cm)
0	5.1	3.5	1.4	0.2
1	4.9	3.0	1.4	0.2
2	4.7	3.2	1.3	0.2
3	4.6	3.1	1.5	0.2
4	5.0	3.6	1.4	0.2

Dataset is split into training and testing...
size of training data and its label (135, 4) (135,)
size of testing data its label (15, 4) (15,)
Label 0 _ setosa
Label 1 _ versicolor
Label 2 _ virginica

```
▾        KNeighborsClassifier
KNeighborsClassifier(n_neighbors=1)
```

```
Results of classification using k-nn with k=1
Sample: [6.3 3.3 6.  2.5] Actual-label: 2 Predicted-label: 2
Classification Accuracy: 1.0
Sample: [6.4 3.2 5.3 2.3] Actual-label: 2 Predicted-label: 2
Classification Accuracy: 1.0
Sample: [6.3 2.3 4.4 1.3] 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: [5.4 3.9 1.3 0.4] Actual-label: 0 Predicted-label: 0
Classification Accuracy: 1.0
Sample: [6.7 3.1 5.6 2.4] Actual-label: 2 Predicted-label: 2
Classification Accuracy: 1.0
Sample: [5.  3.3 1.4 0.2] Actual-label: 0 Predicted-label: 0
Classification Accuracy: 1.0
Sample: [5.7 3.8 1.7 0.3] Actual-label: 0 Predicted-label: 0
Classification Accuracy: 1.0
Sample: [5.9 3.  5.1 1.8] Actual-label: 2 Predicted-label: 2
Classification Accuracy: 1.0
Sample: [5.4 3.7 1.5 0.2] Actual-label: 0 Predicted-label: 0
Classification Accuracy: 1.0
Sample: [5.6 2.5 3.9 1.1] Actual-label: 1 Predicted-label: 1
Classification Accuracy: 1.0
Sample: [5.5 4.2 1.4 0.2] Actual-label: 0 Predicted-label: 0
Classification Accuracy: 1.0
Sample: [5.7 2.8 4.1 1.3] Actual-label: 1 Predicted-label: 1
Classification Accuracy: 1.0
Sample: [6.3 3.3 4.7 1.6] Actual-label: 1 Predicted-label: 1
Classification Accuracy: 1.0
Sample: [5.  3.5 1.6 0.6] Actual-label: 0 Predicted-label: 0
Classification Accuracy: 1.0

Confusion Matrix
[[6 0 0]
 [0 4 0]
 [0 0 5]]
Accuracy Metrics
              precision    recall  f1-score   support

           0       1.00      1.00      1.00         6
           1       1.00      1.00      1.00         4
           2       1.00      1.00      1.00         5

    accuracy                           1.00        15
   macro avg       1.00      1.00      1.00        15
weighted avg       1.00      1.00      1.00        15
```