In [7]:

```
from sklearn.datasets import load_iris
from sklearn.model_selection import train_test_split
from sklearn.neighbors import KNeighborsClassifier
from sklearn import metrics

iris = load_iris()
x = iris.data
y = iris.target
x_train,x_test,y_train,y_test = train_test_split(x,y,test_size=0.3,random_state=1)
c_knn = KNeighborsClassifier(n_neighbors=3)
c_knn.fit(x_train,y_train)
y_pred = c_knn.predict(x_test)
print("Accuracy : ",metrics.accuracy_score(y_test,y_pred))
sample = [[2,2,2,9]]
pred = c_knn.predict(sample)
pred_v = [iris.target_names[p] for p in pred]
print(pred_v)
```

```
Accuracy :  0.9777777777777777
['virginica']
```

In [16]:

```
from sklearn.datasets import load_iris
from sklearn.neighbors import KNeighborsClassifier

iris = load_iris()
x = iris.data
y = iris.target

knn = KNeighborsClassifier(n_neighbors=3)
knn.fit(x, y)

user_input = input("Enter the sepal length, sepal width, petal length, and petal wi
user_input = user_input.split(',')
sample = [float(val) for val in user_input]

pred = knn.predict([sample])
pred_class = iris.target_names[pred[0]]

print(f"The predicted class for the input {sample} is: {pred_class}")
```

```
Enter the sepal length, sepal width, petal length, and petal width (c
omma-separated): 9,9,9,9
The predicted class for the input [9.0, 9.0, 9.0, 9.0] is: virginica
```