

## 1- Loading Libraries

```
In [1]: from sklearn import datasets,neighbors,preprocessing  
from sklearn.model_selection import train_test_split  
from sklearn.metrics import accuracy_score
```

## 2- Loading Data

```
In [3]: iris = datasets.load_iris()
```

## 3- Defining X,y

```
In [5]: X, y = iris.data[:,2:],iris.target  
X_train, X_test, y_train, y_test = train_test_split(X, y, random_state = 33)
```

## 4- Preprocessing

```
In [6]: scaler = preprocessing.StandardScaler().fit(X_train)  
X_train = scaler.transform(X_train)  
X_test = scaler.transform(X_test)
```

## 5- Model Definition

```
In [7]: knn = neighbors.KNeighborsClassifier(n_neighbors=5)
```

## 6- Model Learning

```
In [9]: knn.fit(X_train,y_train)
```

```
Out[9]: KNeighborsClassifier(algorithm='auto', leaf_size=30, metric='minkowski',  
metric_params=None, n_jobs=1, n_neighbors=5, p=2,  
weights='uniform')
```

## 7- Prediction

```
In [10]: y_pred = knn.predict(X_test)
```

## 8- Model Evaluation

```
In [11]: accuracy_score(y_test, y_pred)
```

```
Out[11]: 0.631578947368421
```