

In [43]:

```
import numpy as np
from sklearn.datasets import load_iris
from sklearn import tree
```

In [37]:

```
#get Data..
iris = load_iris()

#to make simple i am going to del this particular data and take that data after
to test my model..
test_index = [0,50,100]
```

In [56]:

```
#training data...
train_data = np.delete(iris.data, test_index , axis = 0)
train_target = np.delete(iris.target, test_index)
```

In [59]:

```
#testing data..
test_data = iris.data[test_index]
test_target = iris.target[test_index]
```

```
[[5.1 3.5 1.4 0.2]
 [7.  3.2 4.7 1.4]
 [6.3 3.3 6.  2.5]]
```

In [57]:

```
#DecisionTree Classifier..
clf = tree.DecisionTreeClassifier()
clf.fit(train_data, train_target)
```

Out[57]:

```
DecisionTreeClassifier(class_weight=None, criterion='gini', max_depth=None,
                        max_features=None, max_leaf_nodes=None,
                        min_impurity_decrease=0.0, min_impurity_split=None,
                        min_samples_leaf=1, min_samples_split=2,
                        min_weight_fraction_leaf=0.0, presort=False, random_state=None,
                        splitter='best')
```

In [64]:

```
#testing the fit model..
print("Predicted Output->F(X):{0}, Target Output->Y:{1}".format(clf.predict(test_data), test_target))
```

```
Predicted Output->F(X):[0 1 2], Target Output->Y:[0 1 2]
```

In [66]:

```
#Calculate the accuracy..  
from sklearn.metrics import accuracy_score  
pred = clf.predict(test_data)  
print(accuracy_score(test_target, pred))
```

1.0