In [1]:
```
import pandas
from sklearn import tree
from sklearn.tree import DecisionTreeClassifier
import matplotlib.pyplot as plt
from sklearn.model_selection import train_test_split
from sklearn.datasets import load_iris
```

In [3]:
```
irisData = load_iris()
X = irisData.data
y = irisData.target
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.2, random_
```

In [4]:
```
dtree = DecisionTreeClassifier()
dtree.fit(X_train, y_train)
```

Out[4]:
```
DecisionTreeClassifier()
```

In [5]:
```
y_pred = dtree.predict(X_test)
from sklearn.metrics import accuracy_score
print ("Accuracy : ", accuracy_score(y_test, y_pred))

from sklearn.metrics import confusion_matrix
cm = confusion_matrix(y_test, y_pred)
```

```
Accuracy :  1.0
```

In [6]:
```
cm
```

Out[6]:
```
array([[10,  0,  0],
       [ 0,  9,  0],
       [ 0,  0, 11]], dtype=int64)
```

In [10]:
```
from sklearn.ensemble import RandomForestClassifier
classifier_rf = RandomForestClassifier(random_state=42,max_depth=5,n_estimators=10
classifier_rf.fit(X_train, y_train)
```

Out[10]:
```
RandomForestClassifier(max_depth=5, random_state=42)
```

In [11]:
```
classifier_rf.fit(X_train, y_train)
```

Out[11]:
```
RandomForestClassifier(max_depth=5, random_state=42)
```

In [12]:
```
y_pred = classifier_rf.predict(X_test)
from sklearn.metrics import confusion_matrix
cm = confusion_matrix(y_test, y_pred)
y_pred = classifier_rf.predict(X_test)
```

In [13]:
```
y_pred
```

Out[13]:
```
array([1, 0, 2, 1, 1, 0, 1, 2, 1, 1, 2, 0, 0, 0, 0, 1, 2, 1, 1, 2, 0, 2,
       0, 2, 2, 2, 2, 2, 0, 0])
```

In [14]:
```
cm
```

Out[14]:
```
array([[10,  0,  0],
       [ 0,  9,  0],
       [ 0,  0, 11]], dtype=int64)
```

In [ ]:
```

```