In [1]:
```
from sklearn.ensemble import RandomForestClassifier
from sklearn.datasets import load_iris
from sklearn.model_selection import train_test_split
from sklearn.metrics import accuracy_score
import pandas as pd
```

In [2]:
```
iris_data=load_iris()
X = iris_data.data[:,2:]
y = iris_data.target
X_train,X_test,y_train,y_test = train_test_split(X,y,test_size=0.2)
```

In [3]:
```
df = pd.DataFrame(iris_data.data,columns=iris_data.feature_names)
df['target'] = iris_data.target_names[iris_data.target]
df
```

Out[3]:

	sepal length (cm)	sepal width (cm)	petal length (cm)	petal width (cm)	target
0	5.1	3.5	1.4	0.2	setosa
1	4.9	3.0	1.4	0.2	setosa
2	4.7	3.2	1.3	0.2	setosa
3	4.6	3.1	1.5	0.2	setosa
4	5.0	3.6	1.4	0.2	setosa
...	...	...	...	...	...
145	6.7	3.0	5.2	2.3	virginica
146	6.3	2.5	5.0	1.9	virginica
147	6.5	3.0	5.2	2.0	virginica
148	6.2	3.4	5.4	2.3	virginica
149	5.9	3.0	5.1	1.8	virginica

150 rows × 5 columns

In [4]:
```
rnd_clf = RandomForestClassifier(n_estimators=500,max_leaf_nodes=16,n_jobs=-1)
rnd_clf.fit(X_train,y_train)
```

Out[4]:
```
RandomForestClassifier
RandomForestClassifier(max_leaf_nodes=16, n_estimators=500, n_jobs=-1)
```

In [5]:
```
y_pred_rf = rnd_clf.predict(X_test)
accuracy = accuracy_score(y_test,y_pred_rf)
```

In [6]:
```
print("actual : "+str(y_test))
print("predicted : "+str(y_pred_rf))
print("Accuracy : "+str(accuracy))
```

```
actual : [2 2 2 1 1 1 0 1 2 2 1 2 0 0 1 1 0 2 1 2 2 1 1 2 1 0 1 1 1 1]
predicted : [2 2 2 1 2 1 0 1 2 2 1 2 0 0 1 1 0 2 1 2 2 1 1 2 1 0 1 1 1 1]
Accuracy : 0.9666666666666667
```