

In [1]:

```
from sklearn import datasets
from sklearn import metrics
from sklearn.naive_bayes import GaussianNB as classifier
from sklearn.metrics import accuracy_score as acc
```

Load the iris dataset

In [2]:

```
df = datasets.load_iris()
```

Split as training and test data

In [3]:

```
from sklearn.model_selection import train_test_split
xTrain,xTest,yTrain,yTest=train_test_split(df.data,df.target,test_size=0.20)
```

Build the Naive Bayes model and fit training data

In [4]:

```
model = classifier()
model.fit(xTrain, yTrain)
```

Out[4]:

GaussianNB(priors=None)

Predict for test data and evaluate

In [5]:

```

yPred = model.predict(xTest)
print("Classification report: \n")
print(metrics.classification_report(yTest, yPred))
print("\n Confusion matrix: \n")
print(metrics.confusion_matrix(yTest, yPred))
print("\n accuracy: ")
acc(yTest,yPred)

```

Classification report:

	precision	recall	f1-score	support
0	1.00	1.00	1.00	8
1	1.00	0.92	0.96	12
2	0.91	1.00	0.95	10
avg / total	0.97	0.97	0.97	30

Confusion matrix:

```

[[ 8  0  0]
 [ 0 11  1]
 [ 0  0 10]]

```

accuracy:

Out[5]:

0.9666666666666667

In []: