

In [1]:

```

from sklearn import datasets
from sklearn import metrics
from sklearn.naive_bayes import GaussianNB
from sklearn.metrics import accuracy_score

# Loads the iris datasets
dataset = datasets.load_iris()
from sklearn.model_selection import train_test_split

# the data is split in such a way that the test size is 20 percent
s,testS,p,testP=train_test_split(dataset.data,dataset.target,test_size=0.20)

# Naive Bayes model is fit to the data
outcome = GaussianNB()
outcome.fit(s, p)
print(outcome)

# predictions are made
expectedvalue = testP
predictedvalue = outcome.predict(testS)

# representing the fit of the model in the form of classification report and confusion
matrix
print(metrics.classification_report(expectedvalue, predictedvalue))
print(metrics.confusion_matrix(expectedvalue, predictedvalue))
accuracy_score(expectedvalue,predictedvalue)

```

	precision	recall	f1-score	support
0	1.00	1.00	1.00	9
1	1.00	1.00	1.00	13
2	1.00	1.00	1.00	8
avg / total	1.00	1.00	1.00	30

```

[[ 9  0  0]
 [ 0 13  0]
 [ 0  0  8]]

```

Out[1]:

1.0