

NAIVE BAYES CLASSIFIER MODEL

In [55]:

```
import numpy as np
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.metrics import confusion_matrix, accuracy_score
```

In [56]:

```
import warnings
warnings.filterwarnings('ignore')
```

In [57]:

```
df= pd.read_csv('/Users/anjali98/lc.csv')
df.head()
df.describe()
```

Out[57]:

	Age	Smokes	Alcohol	Result
count	107.000000	107.000000	107.000000	107.000000
mean	43.635514	16.046729	3.280374	0.485981
std	15.229931	6.724193	2.188281	0.502155
min	18.000000	0.000000	0.000000	0.000000
25%	32.000000	12.000000	2.000000	0.000000
50%	42.000000	20.000000	3.000000	0.000000
75%	56.000000	20.000000	4.500000	1.000000
max	77.000000	34.000000	8.000000	1.000000

In [58]:

```
y= df['Result']
X= df.drop(['Result'], axis=1)
```

In [59]:

```
from sklearn.model_selection import train_test_split
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.4, random_st
```

In [60]:

```
from sklearn.preprocessing import StandardScaler
sc = StandardScaler()
X_train = sc.fit_transform(X_train)
X_test = sc.transform(X_test)
```

In [61]:

```
from sklearn.naive_bayes import GaussianNB
classifier = GaussianNB()
classifier.fit(X_train, y_train)
```

Out[61]:

GaussianNB()

In [62]:

```
y_pred = classifier.predict(X_test)
```

In [63]:

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

```
[[22  1]
 [ 1 19]]
```

FINAL ACCURACY SCORE

In [64]:

```
ac = accuracy_score(y_test, y_pred)
print('Accuracy score : ', ac)
```

Accuracy score : 0.9534883720930233

In []: