In [1]:

```
import pandas as pd
import numpy as np
import seaborn as sns
```

In [2]:

```
data=pd.read_csv("test.csv")
```

In [3]:

```
data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1000 entries, 0 to 999
Data columns (total 21 columns):
 #   Column         Non-Null Count  Dtype  
---  ------         --------------  -----  
 0   id             1000 non-null   int64  
 1   battery_power  1000 non-null   int64  
 2   blue           1000 non-null   int64  
 3   clock_speed    1000 non-null   float64
 4   dual_sim       1000 non-null   int64  
 5   fc             1000 non-null   int64  
 6   four_g         1000 non-null   int64  
 7   int_memory     1000 non-null   int64  
 8   m_dep          1000 non-null   float64
 9   mobile_wt      1000 non-null   int64  
 10  n_cores        1000 non-null   int64  
 11  pc             1000 non-null   int64  
 12  px_height      1000 non-null   int64  
 13  px_width       1000 non-null   int64  
 14  ram            1000 non-null   int64  
 15  sc_h           1000 non-null   int64  
 16  sc_w           1000 non-null   int64  
 17  talk_time      1000 non-null   int64  
 18  three_g        1000 non-null   int64  
 19  touch_screen   1000 non-null   int64  
 20  wifi           1000 non-null   int64  
dtypes: float64(2), int64(19)
memory usage: 164.2 KB
```

In [4]:

```
data.head(5)
```

Out[4]:

	id	battery_power	blue	clock_speed	dual_sim	fc	four_g	int_memory	m_dep	mobile_wt
0	1	1043	1	1.8	1	14	0	5	0.1	193
1	2	841	1	0.5	1	4	1	61	0.8	191
2	3	1807	1	2.8	0	1	0	27	0.9	186
3	4	1546	0	0.5	1	18	1	25	0.5	96
4	5	1434	0	1.4	0	11	1	49	0.5	108

5 rows × 21 columns

In [5]:

```
!pip install sklearn
```

```
Requirement already satisfied: sklearn in c:\users\aravindh\anaconda3\lib\si
te-packages (0.0)
Requirement already satisfied: scikit-learn in c:\users\aravindh\anaconda3\l
ib\site-packages (from sklearn) (0.23.2)
Requirement already satisfied: threadpoolctl>=2.0.0 in c:\users\aravindh\ana
conda3\lib\site-packages (from scikit-learn->sklearn) (2.1.0)
Requirement already satisfied: scipy>=0.19.1 in c:\users\aravindh\anaconda3
\lib\site-packages (from scikit-learn->sklearn) (1.5.2)
Requirement already satisfied: joblib>=0.11 in c:\users\aravindh\anaconda3\l
ib\site-packages (from scikit-learn->sklearn) (0.17.0)
Requirement already satisfied: numpy>=1.13.3 in c:\users\aravindh\anaconda3
\lib\site-packages (from scikit-learn->sklearn) (1.19.2)
```

In [6]:

```
from sklearn import preprocessing
```

In [7]:

```
from sklearn.model_selection import train_test_split
```

In [8]:

```
df=pd.read_csv("test.csv")
```

In [23]:

```
df1=df[['battery_power','blue','clock_speed','int_memory','mobile_wt','px_height','px_width
df1.head()
```

Out[23]:

	battery_power	blue	clock_speed	int_memory	mobile_wt	px_height	px_width	ram
0	1043	1	1.8	5	193	226	1412	3476
1	841	1	0.5	61	191	746	857	3895
2	1807	1	2.8	27	186	1270	1366	2396
3	1546	0	0.5	25	96	295	1752	3893
4	1434	0	1.4	49	108	749	810	1773

In [26]:

```
x=df1.drop('blue',axis=1)
y=df1['blue']
```

In [27]:

```
from sklearn.model_selection import train_test_split
x_train ,x_test,y_train,y_test =train_test_split(x,y,test_size=0.30,random_state=101)
```

In [29]:

```
from sklearn.naive_bayes import GaussianNB
from sklearn.metrics import classification_report,confusion_matrix
```

In [30]:

```
model=GaussianNB()
model.fit(x_train,y_train)
```

Out[30]:

```
GaussianNB()
```

In [31]:

```
predictions=model.predict(x_test)
```

In [32]:

```
print(confusion_matrix(y_test,predictions))
print('\n')
print(classification_report(y_test,predictions))
```

```
[[65 73]
 [68 94]]


              precision    recall  f1-score   support

           0       0.49      0.47      0.48       138
           1       0.56      0.58      0.57       162

    accuracy                           0.53       300
   macro avg       0.53      0.53      0.53       300
weighted avg       0.53      0.53      0.53       300
```

In [ ]: