

```
In [19]: import pandas as pd
import numpy as np
from sklearn.linear_model import LogisticRegression
from sklearn.preprocessing import StandardScaler
```

```
In [20]: df=pd.read_csv(r"C:\Users\Niranjan\Downloads\gender_submission.csv")
df
```

|    |     |   |
|----|-----|---|
| 20 | 912 | 0 |
| 21 | 913 | 0 |
| 22 | 914 | 1 |
| 23 | 915 | 0 |
| 24 | 916 | 1 |
| 25 | 917 | 0 |
| 26 | 918 | 1 |
| 27 | 919 | 0 |
| 28 | 920 | 0 |
| 29 | 921 | 0 |
| 30 | 922 | 0 |
| 31 | 923 | 0 |
| 32 | 924 | 1 |

```
In [21]: pd.set_option('display.max_rows',1000000000)
pd.set_option('display.max_columns',1000000000)
pd.set_option('display.width',95)
```

```
In [22]: print('This DataFrame has %d Rows and %d Columns'%(df.shape))
```

This DataFrame has 418 Rows and 2 Columns

```
In [23]: df.head()
```

```
Out[23]:
```

|   | PassengerId | Survived |
|---|-------------|----------|
| 0 | 892         | 0        |
| 1 | 893         | 1        |
| 2 | 894         | 0        |
| 3 | 895         | 0        |
| 4 | 896         | 1        |

```
In [24]: features_matrix=df.iloc[:,0:34]
```

```
In [25]: target_vector=df.iloc[:,-1]
```

```
In [26]: print('The Features Matrix Has %d Rows And %d Columns'%(features_matrix.shape))
print('The Features Matrix Has %d Rows And %d Columns'%(np.array(target_vector).reshape(-1,1).shape))
```

The Features Matrix Has 418 Rows And 2 Columns  
The Features Matrix Has 418 Rows And 1 Columns

```
In [27]: features_matrix_standardized=StandardScaler().fit_transform(features_matrix)
```

```
In [28]: light=None,random_state=None,solver='lbfgs',max_iter=100,multi_class='auto',verbose=0,warm_start=False,n_jobs=None,l1_ratio=None)
```

```
In [29]: Logistic_Regression_Model=algorithm.fit(features_matrix_standardized,target_vector)
```

```
In [30]: Observation=[[1,0]]
```

```
In [31]: predictions=Logistic_Regression_Model.predict(Observation)
print('The Model Predicted The Observation To Belong To Class %s'%(predictions))
```

The Model Predicted The Observation To Belong To Class [0]

```
In [32]: print('The Algorithm Was Trained To Predict One Of The Two Classes:%s'%(algorithm.classes_))
```

The Algorithm Was Trained To Predict One Of The Two Classes:[0 1]

```
In [33]: print("""The Model Says The Probability Of The Obsrvation We Passed Belonging To Class['b']Is %s""%(algorithm.predict_proba(Obs
print()
print("""The Model Says The Probability Of The Obsrvation We Passed Belonging To Class['g']Is %s""%(algorithm.predict_proba(Obs
```

"The Model Says The Probability Of The Obsrvation We Passed Belonging To Class['b']Is 0.8238872695984016

"The Model Says The Probability Of The Obsrvation We Passed Belonging To Class['g']Is 0.17611273040159833

```
In [ ]:
```