

## Project Development Phase Model Performance Test

Date	19 November 2022
Team ID	PNT2022TMID00182
Project Name	Project - Web Phishing Detection
Maximum Marks	10 Marks

### Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Values	Screenshot
1.	Metrics	<b>Classification Model:</b> Confusion Matrix Accuracy Score - 91.6 Classification Report	Fig 1.1 Fig 1.2 Fig 1.3

#### Visualising using Confusion Matrix

```
In [16]: import matplotlib.pyplot as plt
```

```
In [22]: confusion_matrix = metrics.confusion_matrix(y_pred1, y_test)
```

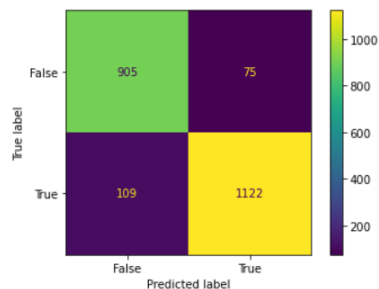
```
In [23]: print(confusion_matrix)
```

```
[[ 905   75]
 [ 109 1122]]
```

```
In [26]: cm_display = metrics.ConfusionMatrixDisplay(confusion_matrix = confusion_matrix, display_labels = [False, True])
```

```
In [28]: cm_display.plot()
```

```
Out[28]: <sklearn.metrics._plot.confusion_matrix.ConfusionMatrixDisplay at 0x19c70674880>
```



**Fig 1.1 Visualization using Confusion Matrix**

### Visualising using Classification Report

```
In [30]: from sklearn.metrics import classification_report
```

```
In [31]: classification_report = metrics.classification_report(y_pred1, y_test)
```

```
In [32]: print(classification_report)
```

	precision	recall	f1-score	support
-1	0.89	0.92	0.91	980
1	0.94	0.91	0.92	1231
accuracy			0.92	2211
macro avg	0.91	0.92	0.92	2211
weighted avg	0.92	0.92	0.92	2211

**Fig 1.2 Classification Report**

```
In [12]: lr = LogisticRegression()  
lr.fit(x_train,y_train)  
y_pred1 = lr.predict(x_test)
```

```
In [13]: log_reg = accuracy_score(y_test,y_pred1)
```

```
In [21]: log_reg
```

```
Out[21]: 0.9167797376752601
```

**Fig 1.3 Accuracy Score**