## Project Development Phase
## Model Performance Test

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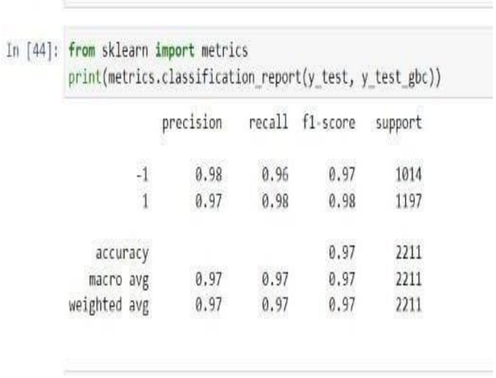
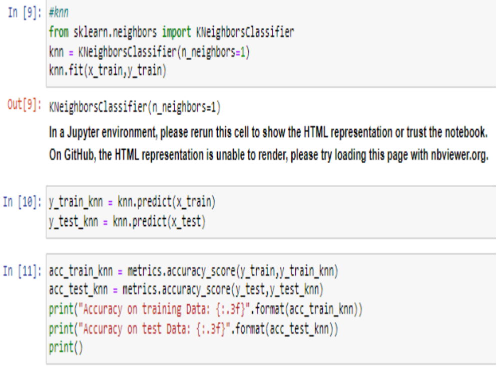
|---|---|
| Date | 18 November 2022 |
| Team ID | PNT2022TMID41234 |
| Project Name | Project- Web Phishing Detection |
| Maximum Marks | 10 Marks |

**Model Performance Testing:**

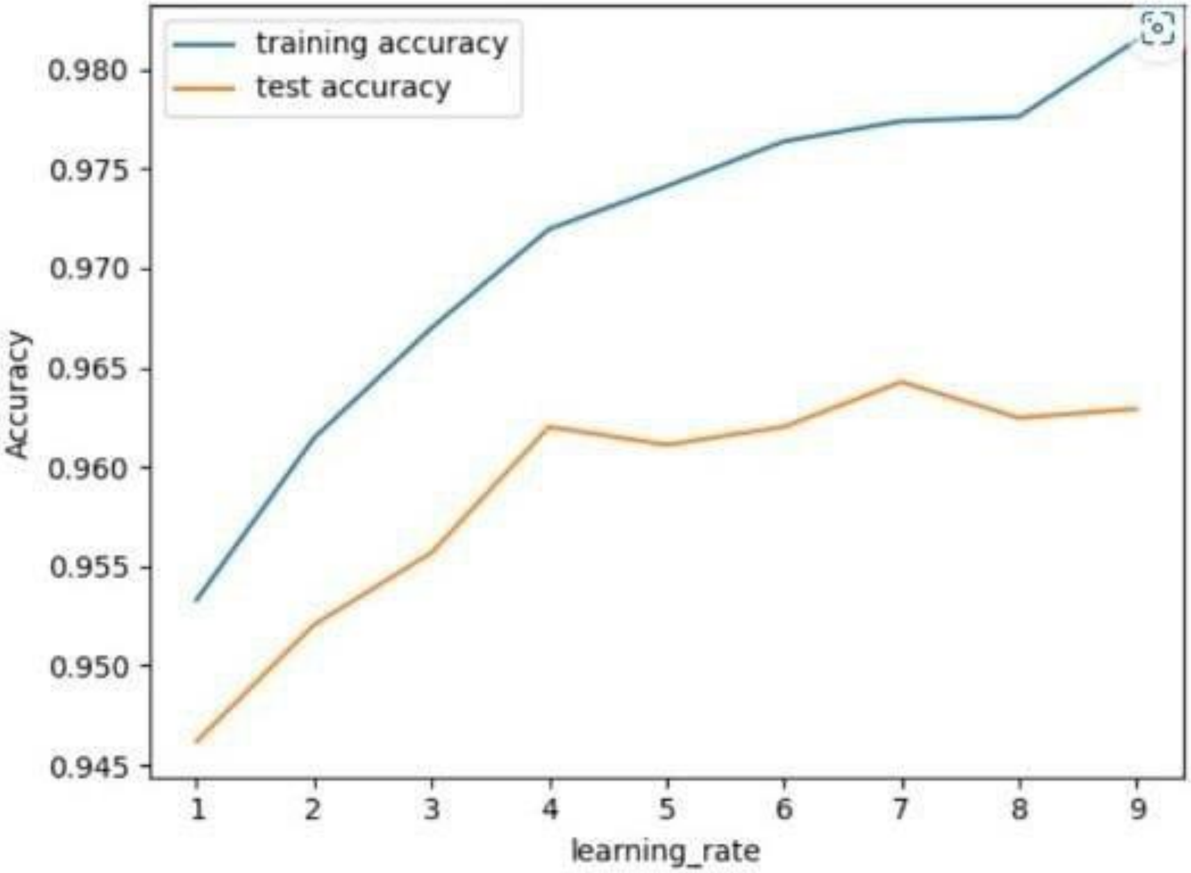
The project team shall fill in the following information in the model performance testing template.

| **S.No.** | **Parameter** | **Values** | **Screenshots** |
|---|---|---|---|
| 1. | Metrics | **Classification Model:**<br>Confusion Matrix - , Accuracy Score- & Classification Report - |  |
| 2. | Tune the Model | Hyperparameter Tuning -<br>Validation Method - |  |

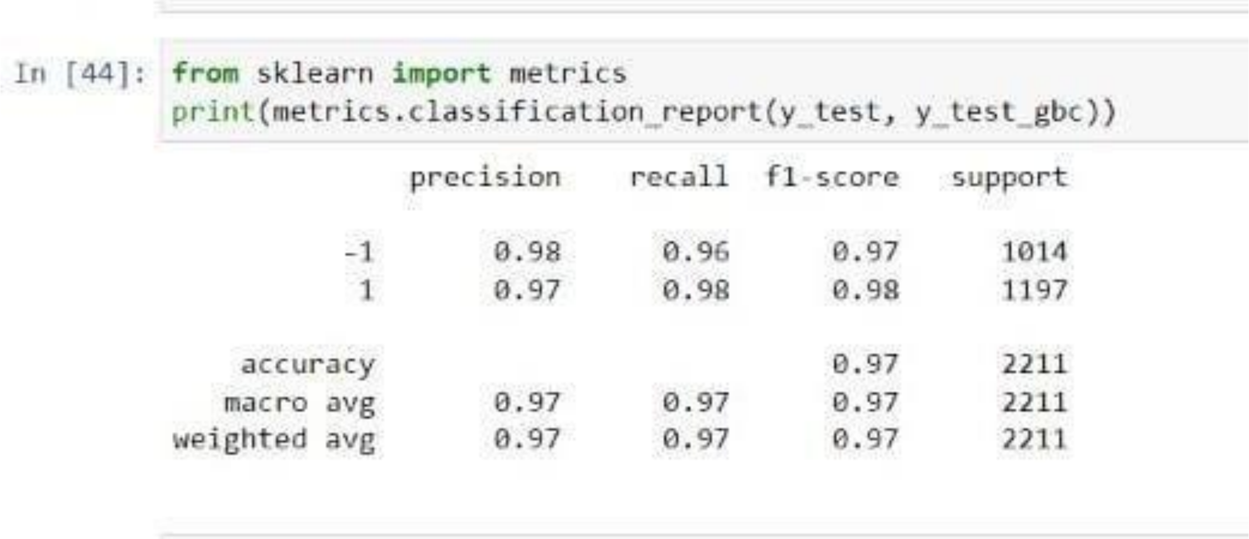
```
In [44]: from sklearn import metrics
         print(metrics.classification_report(y_test, y_test_gbc))

              precision    recall  f1-score   support

          -1       0.98      0.96      0.97      1014
           1       0.97      0.98      0.98      1197

    accuracy                           0.97      2211
   macro avg       0.97      0.97      0.97      2211
weighted avg       0.97      0.97      0.97      2211
```

```
In [9]: #knn
        from sklearn.neighbors import KNeighborsClassifier
        knn = KNeighborsClassifier(n_neighbors=1)
        knn.fit(x_train,y_train)

Out[9]: KNeighborsClassifier(n_neighbors=1)
        In a Jupyter environment, please rerun this cell to show the HTML representation or trust the notebook.
        On GitHub, the HTML representation is unable to render, please try loading this page with nbviewer.org.

In [10]: y_train_knn = knn.predict(x_train)
         y_test_knn = knn.predict(x_test)

In [11]: acc_train_knn = metrics.accuracy_score(y_train,y_train_knn)
         acc_test_knn = metrics.accuracy_score(y_test,y_test_knn)
         print("Accuracy on training Data: {:.3f}".format(acc_train_knn))
         print("Accuracy on test Data: {:.3f}".format(acc_test_knn))
         print()
```

PERFORMANCE:



Accuracy Score- & Classification Report:



In [44]:

```
from sklearn import metrics
print(metrics.classification_report(y_test, y_test_gbc))
```

```
              precision    recall  f1-score   support

          -1       0.98      0.96      0.97      1014
           1       0.97      0.98      0.98      1197

    accuracy                           0.97      2211
   macro avg       0.97      0.97      0.97      2211
weighted avg       0.97      0.97      0.97      2211
```