

# Project Development Phase

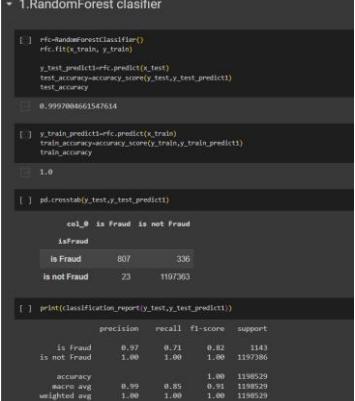
## Model

### Performance Test

<b>Date</b>	15 FEBRUARY 2026
<b>Team ID</b>	LTVIP2026TMIDS79486
<b>Project Name</b>	Project – Online Fraud Detection System
<b>Maximum Marks</b>	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 – Accuray Score- Classification Report -	 

			<pre>- 4 Xgboost Classifier</pre> <pre>[ ] import xgboost as xgb xgb=xgb.XGBClassifier() xgb.fit(x_train,y_train) y_test_predict=xgb.predict(x_test) test_accuracy=accuracy_score(y_test,y_test_predict) test_accuracy</pre> <pre>0.999790440168998</pre> <pre>[ ] y_train_predict=xgb.predict(x_train) train_accuracy=accuracy_score(y_train,y_train_predict) train_accuracy</pre> <pre>0.9998602933377643</pre> <pre>[ ] pd.crosstab(y_test,y_test_predict)</pre> <pre>col_0   0      1 row_0 0    642    172 1     32   972623</pre> <pre>[ ] print(classification_report(y_test,y_test_predict))</pre> <table border="1"> <thead> <tr> <th></th> <th>precision</th> <th>recall</th> <th>f1-score</th> <th>support</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0.95</td> <td>0.79</td> <td>0.86</td> <td>814</td> </tr> <tr> <td>1</td> <td>1.00</td> <td>1.00</td> <td>1.00</td> <td>972655</td> </tr> <tr> <td>accuracy</td> <td></td> <td></td> <td></td> <td>973469</td> </tr> <tr> <td>macro avg</td> <td>0.98</td> <td>0.89</td> <td>0.93</td> <td>973469</td> </tr> <tr> <td>weighted avg</td> <td>1.00</td> <td>1.00</td> <td>1.00</td> <td>973469</td> </tr> </tbody> </table>		precision	recall	f1-score	support	0	0.95	0.79	0.86	814	1	1.00	1.00	1.00	972655	accuracy				973469	macro avg	0.98	0.89	0.93	973469	weighted avg	1.00	1.00	1.00	973469
	precision	recall	f1-score	support																													
0	0.95	0.79	0.86	814																													
1	1.00	1.00	1.00	972655																													
accuracy				973469																													
macro avg	0.98	0.89	0.93	973469																													
weighted avg	1.00	1.00	1.00	973469																													
2.	Tune the Model	Hyperparameter Tuning -	The accuracy for the model is high without hyperparameter tuning and the type 2 error is also very low.																														