Project Development Phase
Model Performance Test

Date	10 November 2022
Team ID	PNT2022TMID12860
Project Name	Smart Lender - Applicant Credibility Prediction For Loan Approval
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**	**Decision Tree Classifier:** Confusion Matrix - , Accuracy Score- & Classification Report	Confusion matrix
			[[64 17]
			 [20 38]]
			Classification report
			                precision recall f1-score support
			
			         0 0.76 0.79 0.78 81
			         1 0.69 0.66 0.67 58
			
			   accuracy 0.73 139
			  macro avg 0.73 0.72 0.72 139
			weighted avg 0.73 0.73 0.73 139
			
			score
			0.7338129496402878

		Random Forest Classifier Confusion Matrix - , Accuracy Score- & Classification Report	Confusion matrix
			[[57 24]
			 [8 50]]
			Classification report
			                precision recall f1-score support
			
			         0 0.88 0.70 0.78 81
			         1 0.68 0.86 0.76 58
			
			   accuracy 0.77 139
			  macro avg 0.78 0.78 0.77 139
			weighted avg 0.79 0.77 0.77 139
			
			score
			0.7697841726618705

| | | **K Neighbors Classifier**<br>Confusion Matrix - ,<br>Accuracy Score- &<br>Classification Report | ```
Confusion matrix
[[49 32]
 [20 38]]
Classification report
              precision    recall  f1-score   support

           0       0.71      0.60      0.65        81
           1       0.54      0.66      0.59        58

    accuracy                           0.63       139
   macro avg       0.63      0.63      0.62       139
weighted avg       0.64      0.63      0.63       139

score
0.6258992805755396
``` |
| | | **Gradient Boosting Classifier**<br>Confusion Matrix - ,<br>Accuracy Score- &<br>Classification Report | ```
Confusion matrix
[[55 26]
 [ 5 53]]
Classification report
              precision    recall  f1-score   support

           0       0.92      0.68      0.78        81
           1       0.67      0.91      0.77        58

    accuracy                           0.78       139
   macro avg       0.79      0.80      0.78       139
weighted avg       0.81      0.78      0.78       139

score
0.7769784172661871
``` |