

Project Development Phase Model Performance Test

Date	10 November 2022
Team ID	PNT2022TMID21336
Project Name	Project – Smart Lender- Loan Predictor
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	<div><div>Classification Model:</div><div>Confusion Matrix – $\begin{bmatrix} 18 & 25 \\ 2 & 75 \end{bmatrix}$, Accuracy Score – 79% & Classification Report –</div><table><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>0.90</td><td>0.42</td><td>0.57</td><td>43</td></tr><tr><td>1</td><td>0.76</td><td>0.97</td><td>0.85</td><td>80</td></tr><tr><td>accuracy</td><td></td><td></td><td>0.78</td><td>123</td></tr><tr><td>macro avg</td><td>0.83</td><td>0.70</td><td>0.71</td><td>123</td></tr><tr><td>weighted avg</td><td>0.81</td><td>0.78</td><td>0.75</td><td>123</td></tr></tbody></table></div>		precision	recall	f1-score	support	0	0.90	0.42	0.57	43	1	0.76	0.97	0.85	80	accuracy			0.78	123	macro avg	0.83	0.70	0.71	123	weighted avg	0.81	0.78	0.75	123	<div><pre>In [10]: randomforest(train_x,test_x,train_y,test_y) **** Random Forest Classifier **** Confusion Matrix [[18 25] [2 75]] Classification Report precision recall f1-score support 0 0.90 0.42 0.57 43 1 0.76 0.97 0.85 80 accuracy 0.83 0.70 0.78 123 macro avg 0.83 0.70 0.71 123 weighted avg 0.81 0.78 0.75 123</pre></div> <div><pre>In [22]: f1_score(y_pred,test_y,average='weighted') Out[22]: 0.7977251407129455</pre></div> <div><pre>In [23]: cv = cross_val_score(rf,x,y,cv=5) In [24]: np.mean(cv) Out[24]: 0.7915367186458749</pre></div>
	precision	recall	f1-score	support																													
0	0.90	0.42	0.57	43																													
1	0.76	0.97	0.85	80																													
accuracy			0.78	123																													
macro avg	0.83	0.70	0.71	123																													
weighted avg	0.81	0.78	0.75	123																													