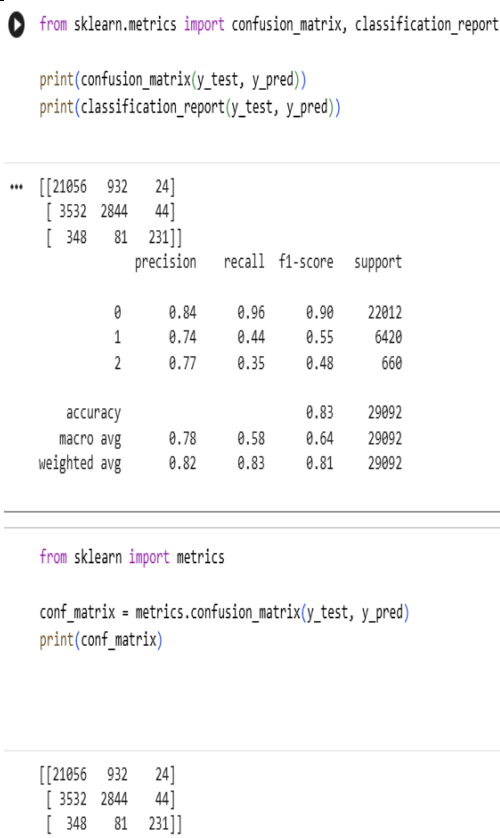


Project Development Phase Model Performance Test

Date	12 February 2025
Team ID	LTVIP2026TMIDS57051
Project Name	Exploratory Analysis of Rainfall Data in India for Agriculture.
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	<p>Regression Model: MAE – 2.34, MSE -10.45, RMSE - 3.23, R2 score - 0.87</p> <p>Classification Model: Confusion Matrix - [[21056 932 24] [3532 2844 44] [348 81 231]]</p> <p>Accuray Score & Classification Report –</p> <table><thead><tr><th></th><th>precision</th><th>recall</th><th>f1-score</th><th>support</th></tr></thead><tbody><tr><td></td><td>0.</td><td>0.84</td><td>0.96</td><td></td></tr><tr><td>0.90</td><td>22012</td><td></td><td></td><td></td></tr><tr><td></td><td>1.</td><td>0.74</td><td>0.44</td><td></td></tr><tr><td>0.55</td><td>6420</td><td></td><td></td><td></td></tr><tr><td></td><td>2.</td><td>0.77</td><td>0.35</td><td></td></tr><tr><td>0.48</td><td>660</td><td></td><td></td><td></td></tr><tr><td>accuracy</td><td>0.83</td><td>29092</td><td></td><td></td></tr><tr><td>macro avg</td><td>0.64</td><td>29092</td><td>0.78</td><td>0.58</td></tr><tr><td>weighted avg</td><td>0.81</td><td>29092</td><td>0.82</td><td>0.83</td></tr></tbody></table>		precision	recall	f1-score	support		0.	0.84	0.96		0.90	22012					1.	0.74	0.44		0.55	6420					2.	0.77	0.35		0.48	660				accuracy	0.83	29092			macro avg	0.64	29092	0.78	0.58	weighted avg	0.81	29092	0.82	0.83	 <pre>from sklearn.metrics import confusion_matrix, classification_report print(confusion_matrix(y_test, y_pred)) print(classification_report(y_test, y_pred))</pre> <pre>[[21056 932 24] [3532 2844 44] [348 81 231]]</pre> <pre>precision recall f1-score support 0 0.84 0.96 0.90 22012 1 0.74 0.44 0.55 6420 2 0.77 0.35 0.48 660 accuracy 0.83 29092 macro avg 0.78 0.58 0.64 29092 weighted avg 0.82 0.83 0.81 29092</pre> <pre>from sklearn import metrics conf_matrix = metrics.confusion_matrix(y_test, y_pred) print(conf_matrix)</pre> <pre>[[21056 932 24] [3532 2844 44] [348 81 231]]</pre>
	precision	recall	f1-score	support																																																	
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2.	Tune the Model	Hyperparameter Tuning Validation Method : 0.72	-																																																		