

## 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><b>Regression Model:</b> MAE – 2.34, MSE -10.45, RMSE - 3.23, R2 score - 0.87</p> <p><b>Classification Model:</b> Confusion Matrix - [ [21056 932 24] [ 3532 2844 44] [ 348 81 231]] Accuracy Score &amp; Classification Report – <b>precision recall f1-score support</b></p> <table> <tr> <td>0.90</td> <td>22012</td> <td>0.</td> <td>0.84</td> <td>0.96</td> <td></td> </tr> <tr> <td>0.55</td> <td>6420</td> <td>1.</td> <td>0.74</td> <td>0.44</td> <td></td> </tr> <tr> <td>0.48</td> <td>660</td> <td>2.</td> <td>0.77</td> <td>0.35</td> <td></td> </tr> </table> <p><b>accuracy</b> 0.83 29092 <b>macro avg</b> 0.78 0.58 0.64 29092 <b>weighted avg</b> 0.82 0.83 0.81 29092</p>	0.90	22012	0.	0.84	0.96		0.55	6420	1.	0.74	0.44		0.48	660	2.	0.77	0.35		<pre>from sklearn.metrics import confusion_matrix, classification_report  print(confusion_matrix(y_test, y_pred)) print(classification_report(y_test, y_pred))  [[21056 932 24]  [ 3532 2844 44]  [ 348 81 231]] 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> <hr/> <pre>from sklearn import metrics  conf_matrix = metrics.confusion_matrix(y_test, y_pred) print(conf_matrix)  [[21056 932 24]  [ 3532 2844 44]  [ 348 81 231]]</pre>
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2.	Tune the Model	Hyperparameter Tuning Validation Method : 0.72	-																		