

Project Development Phase

Model Performance Test

Date	10 February 2026
Team ID	LTVIP2026TMIDS54583
Project Name	Exploratory-Analysis-of-Rainfall-Data-in-India-for-Agriculture
Maximum Marks	4

Model Performance Testing

S.No	Parameter	Values	Screenshot
1	Model Summary	Artificial Neural Network (ANN) / Random Forest Regression Model used for Rainfall Prediction. Input features include rainfall data (10 years), temperature, humidity, and climate trends.	
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1	Model Summary	Artificial Neural Network (ANN) / Random Forest Regression Model used for Rainfall Prediction. Input features include rainfall, data (10 years), temperature, humidity, and climate trends.	<p style="text-align: center;">Rainfall Prediction Model</p> <p>The screenshot shows the 'Rainfall Prediction Model' interface. It includes a 'Model Summary' section with details like Model type: ANN, Random Forest Regression; Input Features: Rainfall data (past 10 years), Climate Trends; and accuracy metrics: Trained Accuracy: 95%, Validation Accuracy: 88%. Below this are two line graphs: 'Training vs. Validation Accuracy' (blue line for Training Accuracy, orange line for Validation Accuracy) and 'Validation Accuracy after Fine Tuning' (blue line starting at ~0.88 and rising to ~0.91).</p>
2	Accuracy	Training Accuracy – 92% Validation Accuracy – 88%	<p style="text-align: center;">Validation Accuracy after Tuning</p> <p>A line graph titled 'Validation Accuracy after Tuning' showing accuracy increasing from approximately 0.88 to 0.91. The y-axis ranges from 0.50 to 0.97, and the x-axis ranges from 1 to 2.</p>
3	Fine Tuning Result (if Done)	Validation Accuracy after tuning – 91%	
		Training Accuracy 92% : Validation Accuracy: After tuning after tested accuracy. 91 Validation Accuracy improved to 91%.	