Project Development Phase
Performance Test

Date	17 February 2026
Team ID	LTVIP2026TMIDS62229
Project Name	Exploratory Analysis of Rain Fall Data in India for Agriculture
Maximum Marks	5 Marks

Model Performance Testing:

S.No.	Parameter	Screenshot / Values
1	**Data Rendered**	Weather dataset (weatherAUS.csv) containing attributes like MinTemp, MaxTemp, Rainfall, WindGustSpeed, Humidity3pm, RainTomorrow. Data successfully loaded and displayed in tabular format before preprocessing.
2	**Data Preprocessing**	✓ Handling Missing Values (Mean/Mode Imputation) ✓ Feature Selection (Selected 5 important features) ✓ Label Encoding (RainTomorrow: Yes=1, No=0) ✓ Data Scaling using StandardScaler ✓ Train-Test Split (80% Training, 20% Testing)
3	**Utilization of Filters**	✓ Location-based filtering (if applied) ✓ Date-based filtering (Year/Month extraction if used) ✓ Rain/No Rain category

		filtering ✓ Feature-based filtering for visualization
4	**Calculation Fields Used**	✓ Probability Calculation using `predict_proba()` ✓ Accuracy Score ✓ Confusion Matrix values (TP, TN, FP, FN) ✓ Precision, Recall, F1-score ✓ Rain Probability Percentage Display
5	**Dashboard Design**	✓ Web-based Flask Dashboard ✓ Input Fields: 5 Weather Parameters ✓ Output Section: Prediction + Probability ✓ No of Visualizations / Graphs – 3 (Confusion Matrix, ROC Curve, Accuracy Comparison Chart)
6	**Story Design**	✓ Story Flow: Data → Preprocessing → Model Training → Evaluation → Deployment ✓ No of Visualizations / Graphs – 3 (Confusion Matrix, ROC Curve, Probability Output Display)