Project Development Phase
Performance Test

Date	20 February 2026
Team ID	LTVIP2026TMIDS52185
Project Name	Intelligent SQL Querying with LLMs Using Gemini Pro
Maximum Marks	

Model Performance Testing:

S.No	Parameter	Screenshot / Values
1	**Data Rendered**	IntelliSQL query log dataset including:• User Query (Natural Language)• Generated SQL• Query Type (SELECT, JOIN, GROUP BY, Aggregation)• Execution Time (seconds)• Accuracy Status (Correct/Incorrect)• Confidence Score (%)• Timestamp
2	**Data Preprocessing**	• Removed duplicate queries• Handled missing confidence values• Converted execution time to numeric format• Categorized query types• Normalized confidence scores (0–100%)
3	**Utilization of Filters**	Filters used for:• Query Type• Accuracy Status• Confidence Score Range• Execution Time Range• Date Range• User Category
4	**Calculation Fields Used**	• Accuracy Rate = SUM(Correct Queries) / SUM(Total Queries)• Avg Response Time = AVG(Execution Time)• Error Rate (%) = (Failed Queries / Total Queries) * 100• Confidence Average (%)• Query Distribution (%)
5	**Dashboard Design**	No of Visualizations / Graphs – 6Includes:1. Accuracy KPI Card2. Query Type Distribution (Pie Chart)3. Execution Time Trend (Line Chart)4. Error Rate by Query Type (Bar Chart)5. Confidence Score Histogram6. Query Log Detail Table
6	**Story Design**	No of Visualizations / Graphs – 4Includes:1. IntelliSQL Workflow Overview2. Model Accuracy Analysis3. Query Performance Insights4. Optimization & Improvement Recommendations

Key Insights from Tableau Dashboard

- Overall Accuracy: 95%
- Average Response Time: 2.8 seconds
- Most Frequent Query Type: SELECT
- Highest Error Rate: Complex JOIN queries
- Confidence Score Average: 93%