

Project Development Phase Performance Test

Date	28 February 2026
Team ID	LTVIP2026TMIDS46423
Project Name	Intelligent SQL Querying with LLMs Using Gemini Pro
Maximum Marks	

Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Screenshot / Values
1.	Data Rendered	SQL-LLM dynamically renders relational database records in tabular format using Streamlit DataFrame. Data includes structured rows and columns fetched from SQLite/MySQL database.
2.	Data Preprocessing	Natural language preprocessing, prompt structuring, schema extraction, SQL validation, restricted keyword filtering, and formatted result output.
3.	Utilization of Filters	Filtering implemented via natural language conditions (e.g., "Show employees where salary > 50000"). Converted into SQL WHERE clause dynamically.
4.	Calculation fields Used	SQL aggregate functions used: <ul style="list-style-type: none"> • COUNT() • SUM() • AVG() • MAX() • MIN() Example: <code>SELECT AVG(salary) FROM employees;</code>
5.	Dashboard design	Streamlit-based interactive UI. No. of Visual Components: <ul style="list-style-type: none"> • Query Input Field – 1 • SQL Display Panel – 1 • Result Table – 1 • Error Message Panel – 1 Total Visual Components = 4
6	Story Design	Logical user flow of interaction: <ul style="list-style-type: none"> Step 1 – Enter Query Step 2 – SQL Generation Step 3 – Validation Step 4 – Execution Step 5 – Display Results No. of Logical Interaction Steps = 5