Project Development Phase
Model Performance Test

Date	28 February 2026
Team ID	LTVIP2026TMIDS46423
Project Name	Intelligent SQL Querying with LLMs Using Gemini Pro
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	**Generative AI Model (LLM-based System):** SQL Generation Accuracy – 90–93% Execution Success Rate – 95% Average Response Time – 2–4 seconds Error Rate – < 7% Query Validation Accuracy – 100% (restricted queries blocked)	
2.	Tune the Model	**Hyperparameter Tuning:** Not directly performed (Using pre-trained GPT model). Prompt engineering used for optimization. **Validation Method:** Manual structured query testing + Execution-based validation (Generated SQL executed on database to verify correctness).	