Functional & Performance Testing Template

## IntelliSQL: Intelligent SQL Querying with LLMs using Gemini Pro

| Date | 27 February 2026 |
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| Team ID | LTVIP2026TMIDS66231 |
| Project Name | IntelliSQL: Intelligent SQL Querying with LLMs using Gemini Pro |
| Maximum Marks | 3 Marks |

## Test Scenarios & Results

| Test Case ID | Scenario (What to test) | Test Steps (How to test) | Expected Result | Actual Result | Pass/ Fail |
|---|---|---|---|---|---|
| FT-01 | Natural Language Query Input | Enter a valid natural language query and submit; also test empty input | Valid query accepted; error shown for empty input | As Expected | Pass |
| FT-02 | SQL Query Generation via Gemini Pro | Enter a plain English database question and click "Generate SQL" | Syntactically correct SQL query generated and displayed | As Expected | Pass |
| FT-03 | Gemini Pro API Connection Check | Trigger SQL generation with a valid Gemini Pro API key configured | API responds successfully and returns SQL | As Expected | Pass |
| FT-04 | Query Result Display & Formatting | Generate SQL and verify output display in the results panel | SQL displayed with proper syntax highlighting | As Expected | Pass |
| FT-05 | Schema-Aware Query Accuracy | Upload a DB schema and ask schema-specific questions | Correct table and column names used in generated SQL | As Expected | Pass |
| PT-01 | SQL Response Time Test | Measure time from query submission to SQL output display | SQL generated within 3–5 seconds | Within Limit | Pass |
| PT-02 | Multiple Query Request Handling | Submit multiple SQL queries sequentially without reloading | Application handles all requests without crash or error | Stable | Pass |

| PT-03 | Deployment Test | Access the deployed IntelliSQL app via browser and run a query | Application loads and SQL generation works correctly online | Working | Pass |
|-------|-----------------|----------------------------------------------------------------|--------------------------------------------------------------|---------|------|