

User Acceptance Testing (UAT) Template

Date	08 February 2026
Team ID	LTVIP2026TMIDS81581
Project Name	Intelligent SQL Querying with LLMs Using Gemini Pro
Maximum Marks	

Project Overview:

Project Name: Intelli SQL – Intelligent SQL Querying with LLMs Using Gemini Pro

Project Description:

Intelli SQL is an AI-powered system that converts natural language queries into optimized SQL queries using Gemini Pro. The system allows users to interact with databases without deep SQL knowledge, enabling efficient data retrieval, query execution, and performance monitoring through dashboards.

Project Version: 1.0

Testing Period: 15 February 2026 to 20 February 2026

Testing Scope:

The scope of User Acceptance Testing includes end-to-end validation of IntelliSQL functionalities.

Model Functionality Validation

- Verifying natural language to SQL conversion accuracy
- Testing SQL execution on SQLite database
- Validating confidence score generation

User Interface & Workflow

- Testing query input field
- Verifying SQL output display
- Checking result table formatting

Dashboard & Reports

- Validating Power BI / Tableau dashboards
- Checking dynamic filter updates
- Verifying KPI metrics (Accuracy, Response Time)

Error Handling

- Testing empty input
- Testing invalid queries
- Testing malicious SQL input

Performance Validation

- Measuring response time
- Testing multiple query submissions
- Checking system stability under moderate load

Testing Environment:

URL/Location: http://localhost:8501

Credentials (if required):

Username – test_user

Password – Test@123

Test Cases:

Test Case ID	Test Scenario	Test Steps	Expected Result	Actual Result	Pass/Fail
TC-001	Generate SQL from Natural Language	1. Open app2. Enter query3. Click Generate	Correct SQL query generated	SQL generated correctly	Pass
TC-002	Execute Generated SQL	1. Generate SQL2. Execute query	Results displayed correctly	Correct results returned	Pass
TC-003	Test Invalid Input	1. Leave input blank2. Click Generate	Show error message	“Input cannot be empty” displayed	Pass
TC-004	SQL Injection Prevention	1. Enter malicious SQL2. Execute	System blocks unsafe query	Unsafe query rejected	Pass
TC-005	Dashboard Filter Check	1. Open dashboard2. Apply filter	Dashboard updates dynamically	Filters working correctly	Pass
TC-006	Response Time Validation	1. Submit query2. Measure time	Response < 5 seconds	Avg 2.8 seconds	Pass
TC-007	Low Confidence Warning	1. Enter ambiguous query	System flags low confidence	Warning displayed	Pass

Bug Tracking:

Bug ID	Bug Description	Steps to Reproduce	Severity	Status	Additional Feedback
BG-001	Minor delay in JOIN queries	Submit complex JOIN query	Medium	Closed	Optimized prompt structure

Bug ID	Bug Description	Steps to Reproduce	Severity	Status	Additional Feedback
BG-002	Dashboard slow on large logs	Load large dataset	Medium	In Progress	Implement caching mechanism

Sign-off:

Tester Name: Reddy Manoj Kumar

Date: 21 February 2026

Signature: R. Manoj Kumar

Notes:

- Both positive and negative scenarios were tested.
- Error handling and security validation were verified.
- System performance is stable and reliable.
- Ready for deployment after minor performance optimizations.