

Project Design Phase
Proposed Solution Template

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| Date | 24 February 2026 |
| Team ID | LTVIP2026TMIDS34458 |
| Project Name | Intelligent SQL Querying with LLMs using Gemini Pro |
| Maximum Marks | 2 Marks |

Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

| S.No. | Parameter | Description |
|-------|--|--|
| 1 | Problem Statement (Problem to be solved) | Many users struggle to retrieve data from databases because writing SQL queries requires technical expertise, creating a barrier for non-technical users. |
| 2 | Idea / Solution Description | IntelliSQL is an AI-powered system that allows users to query databases using natural language. It converts user questions into SQL queries using Gemini Pro, executes them safely, and displays results with simple explanations. |
| 3 | Novelty / Uniqueness | The system enables natural language querying without requiring SQL knowledge and restricts execution to safe SELECT queries, combining usability with security using LLM-based intelligence. |
| 4 | Social Impact / Customer Satisfaction | IntelliSQL democratizes data access by enabling students, educators, and non-technical users to work with databases independently, increasing productivity and user satisfaction. |
| 5 | Business Model (Revenue Model) | Freemium model with basic query features free and advanced features such as multi-database support, analytics, and enterprise integration offered through paid subscriptions. |
| 6 | Scalability of the Solution | The modular 3-tier architecture allows the system to scale easily by adding more users, databases, and AI resources through cloud deployment and API-based services. |