

Project Design Phase
ProposedSolutionTemplate

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| Date | 08February2026 |
| Team ID | LTVIP2026TMIDS66060 |
| ProjectName | Intelligent SQL Querying with LLMs Using Gemini Pro |
| MaximumMarks | 2 Marks |

ProposedSolutionTemplate:

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

| S.No | Parameter | Description |
|------|--------------------------------------|---|
| 1 | Problem Statement | Users face difficulty writing SQL queries due to complexity of syntax and database structure. Non-technical users cannot easily access database information. |
| 2 | Idea/Solution Description | Intelli SQL is an AI-powered system that converts natural language questions into SQL queries using Gemini Pro. Users type English queries and the system generates, validates, and executes SQL automatically. |
| 3 | Novelty / Uniqueness | Combines Large Language Models with database querying to enable conversational SQL generation instead of manual coding. Uses prompt engineering for structured SQL output. |
| 4 | Social Impact/ Customer Satisfaction | Makes database access easy for students and non-technical users. Improves productivity and reduces dependency on experts. Enhances confidence and user satisfaction. |
| 5 | Business Model | Freemium model—free basic querying, premium features for advanced optimization, enterprise DB integration, analytics dashboards, and API usage. |
| 6 | Scalability | Can be extended to MySQL, PostgreSQL, SQL Server, cloud deployment, multi-user support, and enterprise analytics integration. |