

## Ideation Phase

### Define the Problem Statements

Date	10 February 2026
Team ID	LTVIP2026TMIDS66080
Project Name	IntelliSQL: Intelligent SQL Querying with LLMs Using Gemini Pro
Maximum Marks	2 Marks

#### Customer Problem Statement Template:

**Purpose and Empathy:** The IntelliSQL project was designed by putting the user at the center of the database interaction experience. By creating these problem statements, we focus on what matters most: removing technical barriers so that people can love interacting with their data rather than fearing the complexity of SQL.

Reference: <https://miro.com/templates/customer-problem-statement/>

#### Example:

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	Non-technical project manager	Access student placement and marks data	I don't know how to write SQL code	Relational databases require specialized coding knowledge	Frustrated and helpless
PS-2	Efficiency-focused analyst	Get rapid insights and trend analysis	Manual querying is slow and error-prone	There is no intelligent interface to bridge natural language and SQL	Inefficient and overwhelmed

#### Explanation:

##### Problem Statement 1 (PS-1): The Non-Technical Administrator

This statement focuses on users who need data but lack coding skills.

- **I am:** A non-technical administrator or educator who manages student records but has no prior experience with programming or SQL syntax.
- **I'm trying to:** Retrieve specific information from the database, such as student marks, classes, or company placements, to generate reports and track academic progress.

**But:** I am unable to write the complex SQL queries required to communicate with the database directly.

- **Because:** Traditional database systems require professional SQL knowledge, creating a technical barrier between me and the data I need.
- **Which makes me feel:** Dependent on technical staff, slowed down in my daily tasks, and frustrated by my inability to access information independently.

### **Problem Statement 2 (PS-2): The Data Explorer seeking Speed**

This statement focuses on the need for efficiency and rapid insights.

- **I am:** A data analyst or student who needs to quickly explore trends and retrieve data insights without spending time manually structuring queries.
- **I'm trying to:** Perform rapid trend analysis and "Intelligent Query Assistance" to get instant answers from the STUDENTS table.
- **But:** Manually typing out repetitive SQL statements is time-consuming and prone to syntax errors.
- **Because:** The standard manual querying process is inefficient for high-speed data exploration and does not offer "Syntax Suggestions" or automated optimization.
- **Which makes me feel:** Productively hindered and tired of manual repetitive work, wanting a more "effortless and intuitive" way to interact with data.