

## Project Design Phase

### Problem – Solution Fit Template

<b>Date</b>	February 18, 2026
<b>Team ID</b>	LTVIP2026TMIDS80425
<b>Project Name</b>	Smart Bridge – Intelligent SQL Querying
<b>Maximum Marks</b>	2 Marks

## Problem – Solution Fit Template

The Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer's problem. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns and recognize what would work and why.

### Purpose:

- Solve complex problems in a way that fits the state of your customers.
- Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
- Sharpen your communication and marketing strategy with the right triggers and messaging.
- Increase touch-points with your company by finding the right problem-behavior fit and building trust.
- Understand the existing situation in order to improve it for your target group.

## Problem-Solution Fit Canvas

blue!101. CUSTOMER SEGMENT(S)
<ul style="list-style-type: none"> <li>• Business analysts who need data insights but lack SQL skills</li> <li>• Small business owners managing their own databases</li> <li>• Data science students learning SQL</li> <li>• Project managers needing quick database insights</li> <li>• Non-technical stakeholders in data-driven organizations</li> </ul>

<b>green!102. JOBS-TO-BE-DONE / PROBLEMS</b>	<b>red!106. CUSTOMER CONSTRAINTS</b>
<ul style="list-style-type: none"> <li>• Retrieve specific data from databases without knowing SQL syntax</li> <li>• Generate reports from relational data</li> <li>• Understand database structure without reading documentation</li> <li>• Execute ad-hoc queries for exploratory data analysis</li> </ul>	<ul style="list-style-type: none"> <li>• No formal SQL training or programming background</li> <li>• Limited time to learn query languages</li> <li>• Budget constraints (cannot hire dedicated DB admins)</li> <li>• Fear of accidentally modifying production data</li> <li>• Complex database schemas with unclear naming</li> </ul>
<b>yellow!103. TRIGGERS</b>	<b>orange!107. BEHAVIOUR</b>
<ul style="list-style-type: none"> <li>• Monthly/quarterly reporting deadlines</li> <li>• Ad-hoc data requests from management</li> <li>• Need to verify data accuracy</li> <li>• Rise of AI chatbots making NL interfaces familiar</li> <li>• Frustration with waiting for IT team's help</li> </ul>	<ul style="list-style-type: none"> <li>• Emails IT team for data queries (long turnaround)</li> <li>• Uses outdated Excel exports</li> <li>• Copies and modifies SQL found online (error-prone)</li> <li>• Tries SQL tutorials but gives up</li> <li>• Uses BI tools with limited flexibility</li> </ul>
<b>purple!104. EMOTIONS: BEFORE / AFTER</b>	<b>cyan!105. AVAILABLE SOLUTIONS</b>
<p><b>Before:</b></p> <ul style="list-style-type: none"> <li>• Frustrated, dependent, overwhelmed</li> <li>• Anxious about making mistakes</li> <li>• Blocked, unproductive</li> </ul> <p><b>After:</b></p> <ul style="list-style-type: none"> <li>• Empowered, independent, confident</li> <li>• Productive and efficient</li> <li>• In control of data exploration</li> </ul>	<ul style="list-style-type: none"> <li>• Manual SQL writing (requires training)</li> <li>• BI tools like Tableau/Power BI (expensive, limited)</li> <li>• Asking developers (slow, creates bottleneck)</li> <li>• Excel exports (stale data, no live queries)</li> <li>• ChatGPT (generic, no DB connection)</li> </ul>
<b>green!2010. YOUR SOLUTION: Smart Bridge – Intelligent SQL Querying</b>	
A web application that allows users to type database questions in plain English, which are automatically converted to SQL using Google Gemini AI, executed on the database, and results displayed in a clean, modern interface. Features include: interactive schema viewer, generated SQL display with explanation, and a premium dark-themed UI.	

## References

1. <https://www.ideahackers.network/problem-solution-fit-canvas/>
2. <https://medium.com/@epicantus/problem-solution-fit-canvas-aa3dd59cb4fe>