**4.PROJECT DESIGN:**

**4.1 Problem Solution Fit:**

**ProblemSolutionFitTemplate**

| Date | 18 June 2025 |
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| Team ID | LTVIP2025TMID47771 |
| Project Name | Visualisation tool for electric vehicle charge and Range Analysis using tableau |
| Maximum Marks | 2 Marks |

# **Problem – Solution Fit Template:**

Electric vehicle (EV) users frequently experience **range anxiety** and uncertainty due to the **lack of a centralized, real-time visualization tool** that displays battery charge levels, estimated driving range, and nearby charging station availability. Existing solutions are often fragmented across different apps or limited to manufacturer-specific platforms, making it difficult for users to make confident travel and charging decisions.

Our solution is a **unified visualization tool** that integrates real-time data from EVs and charging infrastructure. It enables users to **analyze charge levels, forecast range accurately**, and identify optimal charging locations, empowering them with a seamless and data-driven experience. This directly addresses the problem by increasing route efficiency, reducing anxiety, and improving user trust in EV usability.

# **Purpose of the Problem:**

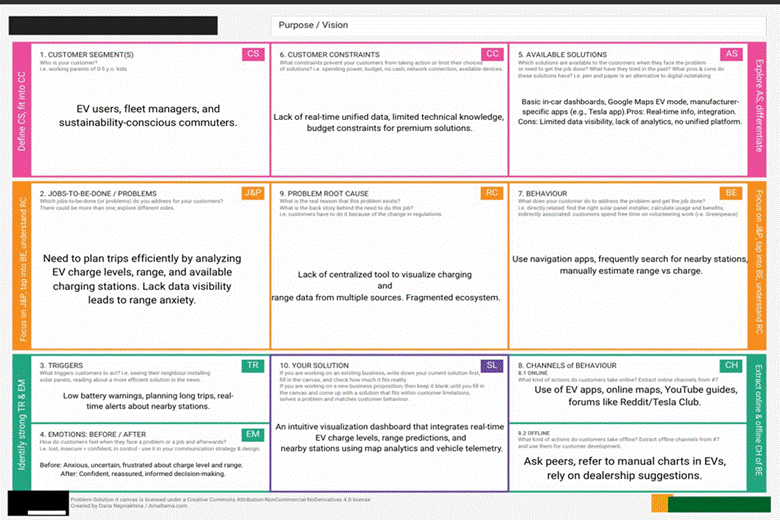
To **eliminate range anxiety** by offering real-time visibility into EV performance metrics.

To **enhance travel efficiency** by enabling smarter decision-making using integrated data.

To **simplify access to charge station availability**, improving the user journey.

To support wider EV adoption by **building trust** through transparency and intelligent visualization.

**Template:**

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