Project Design Phase
Problem – Solution Fit Template

Date	15 February 2025
Team ID	LTVIP2026TMIDS47424
Project Name	Visualization Tool for Electric Vehicle Charge and Range Analysis
Maximum Marks	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 by solving frequent annoyances, or urgent or costly problems.
- ❑ Understand the existing situation in order to improve it for your target group.

1. Customer Segment

- Government and Policy Makers: Assess EV adoption trends and identify regions requiring infrastructure development.
- EV Manufacturers and Dealers: Analyze performance and pricing data to align product offerings with market demand.
- Urban Planners and Energy Providers: Optimize charging station placement and grid capacity planning.
- Consumers and Researchers: Compare EV models based on range, cost, and charging convenience.

The primary target users are EV consumers, researchers, and market analysts who require structured and interactive EV analytics.

2. Problem Statement

India's electric vehicle ecosystem is expanding rapidly, but data on charging infrastructure, vehicle performance, and pricing remains scattered across multiple sources. This fragmentation limits the ability to make informed decisions about infrastructure planning, market positioning, and consumer adoption strategies.

3. Existing Behavior

Stakeholders currently rely on static reports, manufacturer data sheets, or government publications for insights. These sources lack integration and interactivity, making it difficult to perform comparative or geographic analyses. Decision-making is often based on incomplete or outdated information.

4. Pain Points

- Data Silos: EV charging, performance, and pricing data are stored in separate, unstandardized formats.
- Limited Analytical Tools: Existing reports do not support dynamic filtering or visualization.
- Time-Consuming Analysis: Manual data cleaning and aggregation hinder timely insights.
- Lack of Regional Insights: Difficulty in identifying geographic disparities in charging infrastructure and EV adoption.

5. Proposed Solution

Develop an integrated SQL and Tableau-based visualization platform that consolidates EV-related datasets for India.

- SQL: Used for data extraction, cleaning, transformation, and integration from multiple sources.
- Tableau: Used to create interactive dashboards visualizing charging station distribution, EV performance metrics, and pricing comparisons.
  The platform will enable users to explore data dynamically, identify trends, and support evidence-based decision-making.

6. Unique Value Proposition

A unified, interactive visualization tool that transforms fragmented EV data into actionable insights. The solution empowers stakeholders to analyze the relationship between charging infrastructure, vehicle performance, and pricing across India, supporting strategic planning and sustainable mobility initiatives.

7. Key Metrics for Success

- User engagement metrics (dashboard interactions)
- Data accuracy validation
- Successful Tableau Public deployment
- Website accessibility and usability

8. Expected Outcomes

- Comprehensive visualization of India's EV charging network and performance landscape.
- Improved decision-making for infrastructure investment and policy formulation.
- Enhanced transparency and accessibility of EV market data.
- Scalable framework adaptable to future datasets and regional expansions.

Template:

References:

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