

Project Design Phase
Problem – Solution Fit Template

Date	26 June 2025
Team ID	LTVIP2025TMID50379
Project Name	Visualization Tool for Electric Vehicle Charge and Range Analysis
Maximum Marks	2 Marks

Problem – Solution Fit Template:

What is the customer struggling with?

Stakeholders in the electric vehicle sector—such as automotive analysts, EV manufacturers, charging infrastructure providers, policy makers, and potential EV buyers—face challenges in:

- **Market Analysis Gaps:** Difficulty in comparing EV performance metrics across different brands and models in Indian and global markets
- **Infrastructure Planning:** Lack of comprehensive insights into charging station distribution and coverage gaps across regions
- **Purchase Decision Making:** Consumers struggle to evaluate EVs based on price, range, efficiency, and charging capabilities
- **Investment Decisions:** Investors and manufacturers need data-driven insights to identify market opportunities and optimal price points
- **Policy Development:** Government agencies require comprehensive data analysis to plan EV adoption strategies and infrastructure development
- **Competitive Intelligence:** OEMs need to understand market positioning relative to competitors across multiple parameters

Purpose:

- **Solving complex challenges in EV market analysis** through actionable, data-driven insights from multiple datasets (EVIndia , charging stations, global EV data, and budget vehicle options)
- **Accelerating EV adoption** by providing clear visualizations that help stakeholders understand market trends, infrastructure readiness, and vehicle capabilities
- **Sharpening strategic decision-making** by ensuring that dashboards and analytics speak directly to the needs of different stakeholder groups (manufacturers, consumers, policymakers, investors)
- **Building trust with users** by solving frequent pain points like:
 - Fragmented data across multiple sources
 - Difficulty in comparing vehicles across price ranges and performance metrics
 - Lack of regional charging infrastructure visibility
 - Complex technical specifications that are hard to interpret
- **Understanding current market dynamics** and analysis gaps, so the final Tableau solution provides clear, effective improvements over existing scattered information sources

○ **Template:**



References:

1. Customer development theories by Steve Blank.
2. Lean Startup methodology by Eric Ries.
3. Tableau documentation and real estate BI case studies.
4. Behavioral economics applied to tech adoption (Nir Eyal's Hooked Model).
5. Electric vehicle market research and adoption studies
6. EV market analysis frameworks and charging infrastructure planning studies