Project Design Phase-I
Proposed Solution Template

Date	10 February 2026
Team ID	LTVIP2026TMIDS61504
Project Name	Visualization Tool for Electric Vehicle Charge and Range Analysis
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Electric vehicle users and potential buyers face difficulty in understanding real-world battery range, charging time, and charging station availability due to scattered and inconsistent data sources. This creates confusion and hesitation in EV adoption and usage decisions.
2.	Idea / Solution description	Develop a centralized visualization tool that collects EV charge and range data, processes it, and presents it through interactive dashboards. The system compares real-world vs claimed battery performance, analyzes charging time, and displays charging station availability to support informed decision-making.
3.	Novelty / Uniqueness	The solution integrates multiple EV data sources into one unified platform and provides real-world performance visualization rather than relying solely on manufacturer claims. The tool emphasizes data-driven insights and user-friendly dashboards for easy interpretation.
4.	Social Impact / Customer Satisfaction	The solution promotes EV adoption by reducing uncertainty and improving confidence among users. It supports environmentally sustainable transportation and enhances customer satisfaction through clear, reliable, and accessible EV performance data.
5.	Business Model (Revenue Model)	Freemium model: basic dashboard access is free, while advanced analytics, predictive range insights, and premium features are available via subscription. Potential partnerships with EV manufacturers and charging station providers can generate additional revenue.
6.	Scalability of the Solution	The system is designed using scalable cloud infrastructure and modular architecture, allowing it to handle increasing users and expanding EV datasets. It can be extended to include predictive analytics, machine learning models, and integration with IoT-based vehicle data in the future.