Project Design Phase
Proposed Solution Template

Date	Feb 2026
Team ID	LTVIP2026TMIDS47701
Project Name	Virtualization tool for electric vehicle charge and range analysis
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Electric Vehicle (EV) users face range anxiety due to inaccurate charge and range estimation and lack of proper visualization tools to analyze charging behavior and vehicle performance. This makes trip planning difficult and reduces confidence in EV usage.
2.	Idea / Solution description	The proposed solution is a virtualization tool that analyzes EV charging and range data and presents it through interactive dashboards and visualizations. The system helps users understand battery usage, predict driving range, and plan charging efficiently using data-driven insights.
3.	Novelty / Uniqueness	Unlike traditional static range indicators, this tool uses data analytics and visualization to provide deeper insights into EV performance. It combines charge patterns, range prediction, and visual dashboards in a single platform, making EV analysis simple and user-friendly.
4.	Social Impact / Customer Satisfaction	The solution reduces range anxiety, improves user confidence in electric vehicles, and supports eco-friendly transportation. It enhances customer satisfaction by enabling better trip planning and promoting sustainable mobility.
5.	Business Model (Revenue Model)	The platform can follow a freemium model where basic analytics are free, and advanced features are available through subscription. It can also generate revenue through partnerships with EV manufacturers, fleet operators, and charging service providers.
6.	Scalability of the Solution	The solution is highly scalable as it can be extended to support multiple EV models, large datasets, and real-time charging data. It can be deployed across cities and regions with increasing users and EV adoption