Project Design Phase
Proposed Solution

Date	15 Feb 2026
Team ID	LTVIP2026TMIDS43270
Project Name	Visualization Tool for Electric Vehicle Charge and Range Analysis with Tableau
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	**Problem Statement (Problem to be solved)**	Organizations operating electric vehicles lack a centralized, data-driven platform to monitor battery charge levels, driving range, energy consumption, and charging efficiency. Data is scattered across telematics systems, charging logs, and spreadsheets, leading to inefficient decision-making and increased operational risk.
2.	**Idea / Solution Description**	The Electric Vehicle Charge & Range Analysis Dashboard is an interactive Tableau-based solution that integrates EV trip data, charging records, battery performance metrics, and environmental factors into a unified visualization platform. It enables real-time monitoring, trend analysis, and performance optimization.
3.	**Novelty / Uniqueness**	Combines battery analytics, environmental impact analysis (temperature vs range), charging station utilization, and predictive range modeling into a single interactive dashboard. Provides story-based visualization for executive presentations and strategic planning.
4.	**Social Impact / Customer Satisfaction**	Promotes sustainable transportation by optimizing EV efficiency and reducing energy waste. Enhances operational reliability and user confidence by minimizing unexpected downtime and improving battery health management.
5.	**Business Model (Revenue Model)**	B2B subscription model for fleet operators, logistics companies, and EV service providers. Additional revenue from customized dashboard deployment, predictive analytics modules, and consulting services for EV optimization.
6.	**Scalability of the Solution**	Built using scalable BI and cloud infrastructure, enabling integration with additional EV fleets, charging stations, IoT sensors, and real-time telematics APIs. The solution can be expanded to support smart city and national EV infrastructure analytics.