**Project Design Phase**

**Proposed Solution Template**

|  |  |
| --- | --- |
| Date | 15 February 2025 |
| Team ID | LTVIP2025TMID49115 |
| 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 the proposed solution template.

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | Lack of centralized and user-friendly visualization tools for analyzing Electric Vehicle (EV) usage, charging patterns, and range statistics for informed decision-making. |
|  | Idea / Solution description | Develop an interactive dashboard using Tableau that visualizes EV data such as battery usage, charging station availability, mileage trends, and predictive maintenance insights. The dashboard will offer data-driven support for consumers, manufacturers, and policymakers. |
|  | Novelty / Uniqueness | Combines real-time EV data analytics, predictive modeling, and geospatial mapping in a single intuitive interface. Includes a unique feature that provides personalized suggestions for EV users based on usage behavior. |
|  | Social Impact / Customer Satisfaction | Promotes sustainable transport by increasing awareness and ease of use of EVs. Enhances user satisfaction by enabling smarter usage decisions, and encourages EV adoption by showcasing cost and environmental benefits. |
|  | Business Model (Revenue Model) | Freemium model offering basic dashboards for free and premium subscriptions for advanced analytics, API access, and enterprise features. Potential partnerships with EV manufacturers and government agencies. |
|  | Scalability of the Solution | Highly scalable with cloud deployment. The model can easily integrate more data sources (IoT, traffic, weather APIs), be extended to other regions or vehicle types, and support thousands of users simultaneously. |