**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

|  |  |
| --- | --- |
| Date | 1 July 2025 |
| Team ID | LTVIP2025TMID50223 |
| Project Name | Visualization Tool For Electric Vehicle Charge And Range Analysis |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| --- | --- | --- |
| FR-1 | Dashboard Access | User can view EV dashboards via web interface |
|  |  | Tableau dashboards embedded within webpage |
| FR-2 | Data Filtering | Filters based on EV brand, range, location, battery size |
|  |  | User-selectable filters inside dashboard (Tableau) |
| FR-3 | Comparative Visualization | Compare Indian EVs with Global EVs |
|  |  | Multi-chart dashboards for India vs Global insights |
| FR-4 | Storytelling with Data | Tableau Story shows the journey of EV performance trends |
|  |  | Multiple story points explain EV growth and challenges |
| FR-5 | Web Application Frontend | HTML/CSS/Bootstrap interface loads embedded visualizations |
|  |  | Responsive design for desktop and mobile users |
| FR-6 | Hosting and Sharing | Tableau dashboards hosted on Tableau Public |
|  |  | Web interface hosted on GitHub Pages / Netlify |

**Non Functional requirements:**

| **NFR No.** | **Non-Functional Requirement** | **Description** |
| --- | --- | --- |
| NFR-1 | Usability | Simple UI design using Bootstrap; intuitive dashboard filtering |
| NFR-2 | Security | Basic web security practices, HTTPS enabled for shared links |
| NFR-3 | Reliability | Tableau Public ensures 24/7 access to dashboards; no dynamic backend needed |
| NFR-4 | Performance | Lightweight static website; fast Tableau rendering with CDN |
| NFR-5 | Availability | Tableau Public + GitHub Pages offer high uptime |
| NFR-6 | Scalability | Easy to scale with more dashboards, datasets, or user interface pages |