

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

Date	1 February 2026
Team ID	LTVIP2026TMIDS61504
Project Name	visualization tool for electric vehicle charge and range analysis
Maximum Marks	4 Marks

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIn
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Login	Login using email and password Social login (Gmail / LinkedIn)
FR-4	EV Data Visualization	View battery charge level View driving range analysis View real-world vs claimed range
FR-5	Charging Analysis	Analyze charging time vs distance View charging station availability
FR-6	Data Management(Admin)	Upload EV datasets Update charging and range data

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	The system should be easy to use with a simple and intuitive user interface for all users.
NFR-2	<b>Security</b>	User data and EV datasets must be securely stored with authentication and authorization mechanisms.
NFR-3	<b>Reliability</b>	The system should provide accurate and consistent EV charge and range data without failure.
NFR-4	<b>Performance</b>	Dashboards and visualizations should load quickly with minimal response time.
NFR-5	<b>Availability</b>	The system should be available to users at all times with minimal downtime.
NFR-6	<b>Scalability</b>	The system should support increasing users and large EV datasets without performance degradation.