

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	Usability	The system should be easy to use with a simple and intuitive user interface for all users.
NFR-2	Security	User data and EV datasets must be securely stored with authentication and authorization mechanisms.
NFR-3	Reliability	The system should provide accurate and consistent EV charge and range data without failure.
NFR-4	Performance	Dashboards and visualizations should load quickly with minimal response time.
NFR-5	Availability	The system should be available to users at all times with minimal downtime.
NFR-6	Scalability	The system should support increasing users and large EV datasets without performance degradation.