

# Solution Requirements

Date	24 June 2025
Team ID	LTVIP2025TMID48669
Project Name	Visualization Tool for Electric Vehicle Charge and Range Analysis.
Maximum Marks	4 Marks

## TITLE :

Visualization Tool for Electric Vehicle Charge and Range Analysis.

**Team ID :** LTVIP2025TMID48669

## Team Members :

**Team Leader :** Likitha Dadi

**Team member :** Ella Likhitha

**Team member :** Gandhi Dinesh

**Team member :** Allada Vasanth

**Team member :** Goona Ganapathi Swamy

## FUNCTIONAL REQUIREMENTS

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Data Upload	Upload EV Charge Data Upload EV Range Data Upload Global Market Data Upload Battery Data
FR-2	Data Cleaning & Transformation	Handle missing values Standardize units (km, miles) Merge datasets from multiple sources
FR-3	Data Visualization	View dashboards for Charge Time Analysis View dashboards for Range Comparison View dashboards for Market Trends View dashboards for Battery Technology Analysis

FR-4	Reporting & Export	Export dashboard visuals as PDFDownload charts as imagesShare reports with stakeholders
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**UNFUNCTIONAL REQUIREMENTS**

<b>FR No.</b>	<b>Non-Functional Requirement</b>	<b>Description</b>
NFR-1	Usability	The tool shall provide intuitive dashboards with user-friendly filters for easy data exploration.
NFR-2	Security	The tool shall ensure secure data upload and user authentication to protect sensitive EV data.
NFR-3	Reliability	The tool shall operate reliably without errors during dashboard interactions or data refreshes.
NFR-4	Performance	Dashboards shall load within 3 seconds for typical user queries on standard hardware.
NFR-5	Availability	The system shall be available 99.5% of the time during business hours for all users.
NFR-6	Scalability	The solution shall support increasing data volumes and additional users without performance loss.