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

Date	28 Jun. 25
Team ID	LTVIP2025TMID29321
Project Name	Garbage Management System
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	Smart Bin Monitoring	Sensor-based Fill Level Detection Real-time Data Upload to Cloud
FR-4	Route Optimization	Bin Status Mapping Automated Route Generation for Collection Trucks
FR-5	Admin Dashboard	View Bin Locations & Status Alert Logs User Management Features

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The system must be easy to use with a clean UI and accessible navigation.
NFR-2	Security	User data and system access must be protected with authentication and encryption.
NFR-3	Reliability	System should ensure 99% uptime and consistent data logging.

NFR-4	Performance	Response time for any operation must be under 2 seconds.
NFR-5	Availability	The system should be available 24/7, including peak usage hours.
NFR-6	Scalability	The solution must support scaling to additional cities or zones as needed.