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

Date	03 October 2022
Team ID	PNT2022TMID47715
Project Name	Smart Waste Management System For Metropolitan Cities
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	User able to register an account with email, password and confirm password.
FR-2	Login	User able to login into the system with email and password. The system shall display error message if the user enters wrong information.
FR-3	Display Map Views	User able to see the map views. The system require user to enable GPS. User able to see the dustbins' location. User able to see the dustbin's status. The system allows user gets the route direction from user's current location to dustbin's location.
FR-4	Logout	User able to logout the system.
FR-5	Detect Dustbins' Volume	The sensor shall detect the distance of dustbin and calculate in term of volume. The system able to update the dustbins' status to real-time database.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The system can be accessed via internet. The system can be used in any android devices.
NFR-2	Security	The system can be only accessed by registered email and password.
NFR-3	Reliability	A reduction in the number of waste collections needed by up to 80%, resulting in less manpower, emissions, fuel use and traffic congestion.
NFR-4	Performance	The system can be accessed within 24 hours per day and 365 days per year.
NFR-5	Availability	the Availability of resources and the environmental conditions of a given society is essential for the development of an appropriate waste management system.

| NFR-6 | **Scalability** | Garbage level can be Detected at any time and where if the garbage cause damage can be notified to user. |