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

Date	13 October 2022
Team ID	PNT2022TMID33002
Project Name	Project – Smart Waste Management 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	• Registration through Application • User able to register an account with email, password and confirm password. • The system shall display error message if the compulsory field is not completed.
FR-2	User Confirmation	• Confirmation via Email • Confirmation via OTP
FR-3	Login	• User able to login into the system with email and password. • User able to save their username and password in login page.
FR-4	Display Map Views	• User able to see the map views. • The system require user to enable GPS. • User able to see their current location. • User able to see the dustbins' location. • User able to see the dustbin's status. • The system shall refresh the dustbins' status every 1 hour. • User able to zoom in and out the map views. • The system allows user gets the route direction from user's current location to dustbin's location.
FR-5	Detect Dustbin's 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.
FR-6	Logout	• User able to logout the system.

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. • This system has end-to-end encryption.
NFR-3	**Reliability**	• The system is reliable as it provides accurate data to the user at the right time without any failure.
NFR-4	**Performance**	• The system has good response time as it takes less time to load the information/data.
NFR-5	**Availability**	• The system can be accessed within 24 hours per day and 365 days per year.
NFR-6	**Scalability**	• The scalability of this system is high as it is easy to process and is cost effective. • Devices can get the accurate level of data even if the geographical area is larger.