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

Date	10 October 2022
Team ID	PNT2022TMID18178
Project Name	Project – Smart Waste Management for Meteropolitan 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 Gmail (or) Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	GPS Access	To locate the location of the Samrt Bin
FR-4	Bin Level Analysis	Using the weight sensor and the ultrasonic sensor the level of the bin can be measured
FR-5	Updation in Website	The levels of the bins will be uploaded in the website through the cloud platform
FR-6	Collection of garbage	The workers will collect the garbage according to the level of the bins filled.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	• The solution proposed will be very productive to the society. • Through this the people start to use the implementation at a greater extent.
NFR-2	**Security**	• Users account will be safe and privatized. • The accounts will be verified through the OTP or codes generated by the admin.
NFR-3	**Reliability**	• Using an environmental friendly solution the production will be reliable.
NFR-4	**Performance**	• By using this process the waste can be monitored.

		• The environment will be cleaned with a greater extent. • Using the real-time sensors the user can know the details of the Smart Bin.
NFR-5	**Availability**	• The smart waste bins are available in Convention centers,buildings, stadiums, and transportation facilities and captures high-quality waste data and informs staff when it gets full.
NFR-6	**Scalability**	• A versatile scalable smart waste-bin system based on limited waste management could potentially lead to great improvements. • Once these smart bins are implemented on a large scale by replacing the traditional bins, the waste can be quickly managed to its efficient level as it avoids unnecessary lumping of wastes on roadside.