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

Date	20 October 2022
Team ID	PNT2022TMID37903
Project Name	Project - 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	Admin	login by using valid user name and password. add bins,add users, view the bin dashboard. View all the bins on the map, gives optimized routes for bin collection. Set garbage collector on duty and can view bin fill level of bins in real time and their location on google map.
FR-2	Garbage collector	View the location of full bins on the map. Get optimized routes for bin collection.
FR-3	System	validate and authenticate a registered user upon login. Fetch and Display the current levels of bin. Sends a SMS alert to Garbage collector on duty when bin is full. Allow the Admin to add bins,add users. Get the geolocation of garbage collector and give optimized routes for bin collection

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	User research centered smart application design for users to sorting and deal with the waste accurately with improved user experience and usability living in smart city
NFR-2	**Security**	The System should allow a secured communication between server,admin and users.
NFR-3	**Reliability**	The System should be reliable and must not degrade the performance of the existing system and should

		not lead to the hanging of the system.
NFR-4	**Performance**	The system must be designed such that it has a quick response time; the system must execute commands fast enough, including page load and refresh time
NFR-5	**Availability**	User research helps to get the user needs and collect the data for the main function optimization design for waste sorting in smart city, and pass the user test about its availability.
NFR-6	**Scalability**	Storage should be efficiently used. The system should be portable. The size of the application should not be too big to allow easy download and faster app loading time. The system and database must recover from failure quickly while devoid of frequent failure