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

Date	17 October 2022
Team ID	PNT2022TMID32932
Project Name	Project - Smart Waste Management System For Metropolitian 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 Form Registration through Gmail
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Bin Invention	The proposed model provide real time monitoring to the garbage bins placed in various location. You can see every monitored bin and stand,and you can use google street view at any time to visit them.
FR-4	Bin Monitoring	The Garbage bins are monitored by smart sensors. the application also forecasts when the bin will be filled based on the past data and capacity of the bin. The sensor will know when the bin was last emptied.So,you can eliminate overflowing bins and cease collecting the empty ones,
FR-5	Notification	The percentage of garbage level will be detected through sensors. When the garbage level is increased above 75%,it gives notificatiion to the security team. After receiving the notification,the garbage collector collects the garbage.
FR-6	Optimize the route to collect	Waste collectors will use their time effectively by collecting the wastes which requires service rather than travelling the same routes .
FR-7	Database	Information about the location and status of bins will be stored in the database.
FR-8	Feedback	It helps the developer to improve the apps.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	To study the customers product usability can help desiners to understand better.
NFR-2	**Security**	Security is enhanced as the system has a secured login/registration page and even the data is stored in a secured manner.
NFR-3	**Reliability**	The user can access the bin level and location of bin and update the status of each bin.
NFR-4	**Performance**	It has better performance by optimizing the routes.
NFR-5	**Availability**	The entire system is available for all the time when reqiures.
NFR-6	**Scalability**	Using smart bins may reduce the number of bins inside the cities because we monitor the garbage 24/7 more efficient.