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

Date	03 October 2022
Team ID	PNT2022TMID04566
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.

R 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 Inventory	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 also use google street view at any time to visit them.
FR-4	Bin Monitoring	The smart sensors will monitor the garbage bins . 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		The percentage of garbage level will be detected through sensors. When the garbage level is increased above certain %,it gives notification to the security team. After receiving the notification,the garbage collector collects the garbage
FR-6		Waste collectors will use their time effectively by collecting the wastes which requires service rather than travelling the same routes .
FR-7		The information about location and status of bins will be stored in the database.

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.