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

Date	17 October 2022
Team ID	PNT2022TMID428087
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	Real time monitoring	In this , a 24*7 monitoring system is designed for monitoring dumpsters.
FR-2	Sensor	Sensor is used for measuring the level of waste in the dumpster.it can sense all type of waste material it is in the form of solid or liquid.
FR-3	Smart bin	If bin reached maximum level the notification sends to the admin.The admin will post the location and garbage id to the truck driver. Then the truck driver reaches the destination and pickup the trash in a proper time. When used this idea it eliminates the missed pickups.
FR-4	Mobile application	Citizens easily access information about the public waste using mobile application. It is used to detect the bin level and capture image when we need. If bin reach maximum level notification sends to the receiver. if it not cleans in a proper time notification sends to higher authority.
FR-5	Server	If dustbins are relocated to another location, it will automatically register with new server with new location.
FR-6	Truck	Waste collectors can use the smart waste management software to optimized their collection routes.it is essential for picking up trash and its efficient disposal.it reduce the trips.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The system should be user friendly to make it efficient. Easy way to track and detect the solution
NFR-2	**Security**	❖ User name and password ❖ Backup facility ❖ Privileges

		❖ Safety requirement for admins to protect the user from eye problem
NFR-3	**Reliability**	❖ Error free operation ❖ Easy to access ❖ Easier way to improve cleanliness
NFR-4	**Performance**	The system should be performed as desired user. More eco-friendly reducing overflow in bins and ensuring community safety
NFR-5	**Availability**	The system should able to run all times.it is easier to municipal corporation for their better management of regarding collection of wastes.
NFR-6	**Scalability**	Ratings Users: 99% Product:90% Public : 99%