

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

Date	15October 2022
Team ID	PNT2022TMID11049
Project Name	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	User Registration	Registration through Form Registration through Gmail Registration through LinkedIn
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Sensors	Ultrasonic-level sensor and gas sensor which automatically sense the hazardous gases and the maximum limit of waste.
FR-4	Notifies management	User sends a message to the management to collect the waste. Authority collects the waste after receiving on average number of receivers from a particular area.
FR-5	Waste Segregation	Segregates the waste into biodegradable and non-biodegradable
FR-6	Location Tracker	Location is tracked using GPS location tracker enabled in the app

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	A distinctive number that identifies the location of each trash can is used to track them.
NFR-2	<b>Security</b>	The eccentric method easily contacts the appropriate authority and provides all information relating to the physical state of a specific bin.
NFR-3	<b>Reliability</b>	Environmental protection – from pollution or contamination. Money generation – companies may buy recyclable materials due to their value.
NFR-4	<b>Performance</b>	Used to detect the level of garbage in the bin and intimate it in case it is full.
NFR-5	<b>Availability</b>	In case if notification is not working then the user can send a message or call the authority using customer care number.

NFR-6	<b>Scalability</b>	Provide a robust and flexible regulatory system for waste disposal and management system.
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