

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

Date	29 October 2022
Team ID	PNT2022TMID04391
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	Visiting Website	<ul style="list-style-type: none"><li>♦ Visiting website to check bin levels and cleaning the amount of waste from critical level to normal level</li><li>♦ Visiting website to check impurities and dirty things from bins and reducing large amount of wastes as soon as possible</li><li>♦ Visiting website to check overflowing bin locations through GPS and level through ultrasonic sensors</li></ul>
FR – 2	Searching	<ul style="list-style-type: none"><li>♦ Searching different bins in different areas and monitor the critical level of waste</li><li>♦ Searching for overflowing bins and as soon as user can clearing the amount of wastes</li></ul>
FR – 3	Notifying	<ul style="list-style-type: none"><li>♦ Notifying user whenever the bin is full and notified admin will help to control the level of every bins in different areas</li></ul>

## Non – functional Requirements:

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

FR NO.	Non – functional Requirement	Description
NFR - 1	Usability	<ul style="list-style-type: none"><li>• The UI should be simple enough for everyone to understand and process should be very important by implementing the core ideas</li></ul>
NFR - 2	Security	<ul style="list-style-type: none"><li>• The website must be secure enough to trust by the users for protecting their personal credentials</li></ul>
NFR - 3	Reliability	<ul style="list-style-type: none"><li>• The UI should be able to withstand at any situation and any number of users can use the site for alerting the bin level without any crash and secure the server for data</li></ul>
NFR - 4	Performance	<ul style="list-style-type: none"><li>• The live bin level is shown in the specific bin section through the sensor near every bin for security purpose to pollute the environment.</li></ul>
NFR - 5	Availability	<ul style="list-style-type: none"><li>• The UI should respond to the users and server always available with high durability lasts for more time</li></ul>
NFR - 6	Scalability	<ul style="list-style-type: none"><li>• Different bins of many location can be viewed and it means to withstand the bin level at any time is very important for maintaining the bin level with safety level</li></ul>