

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

Date	15 October 2022
Team ID	PNT2022TMID51935
Project Name	SMART WASTE MANAGEENT FOR METROPOLITAN CITIES-IOT
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 Authentication	Collecting data from the transmitted signal
FR-2	IBM Watson IOT Platform	Stores the sensed data and alerts.
FR-3	Node RED	Designs the wireframing and connection of user interface
FR-4	Web User Interface	Created by Node RED service connected to IBM Watson IOT platform
FR-5	Database	Fetches data and updates it in the database
FR-6	Python script	Generates random data to the iot device and transmits to the Watson cloud.

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	Separate bins for recyclable and non
NFR-2	<b>Security</b>	Data fetched can be only accessed by authorized user
NFR-3	<b>Reliability</b>	Accurate data and availability is displayed
NFR-4	<b>Performance</b>	Detects and intimates alerts on reaching fixed limit.
NFR-5	<b>Availability</b>	Accessible through 24/7 by user and authorizer
NFR-6	<b>Scalability</b>	Holds vast accessibility by the user