**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 14 October 2022 |
| Team ID | PNT2022TMID02664 |
| Project Name | Smart Waste Management System For Metropolitan Cities |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | User Registration | Registration through Employee ID |
| FR-2 | User Confirmation | Confirmation via Email  Confirmation via OTP |
| FR-3 | Design smart bins | Equip bins with sensors to sense bin weight, garbage level and location data.  Data sent to cloud. |
| FR-4 | Cloud computing | Pull data from sensors.  Serve as storage unit.  Perform computation to detect when bin level and weight crosses threshold. |
| FR-5 | Dashboard view | Showcase bin details in the Dashboard using visually appealing UI.  Give appropriate pop- up alerts to indicate when bins are full.  Real time bin monitoring. |
| FR-6 | Alert system | Provide notifications to web application user.  Intimate location of bins to truck drivers to collect waste through GSM module. |

**Non-functional Requirements:**

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

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** |  |
| NFR-2 | **Security** |  |
| NFR-3 | **Reliability** |  |
| NFR-4 | **Performance** |  |
| NFR-5 | **Availability** |  |
| NFR-6 | **Scalability** |  |