## Project Design Phase-II Technology Stack (Architecture & Stack)

| Date          | 14 October 2022        |
|---------------|------------------------|
| Team ID       | PNT2022TMID04607       |
| Project Name  | Smart Waste Management |
| Maximum Marks | 4 Marks                |

## **Technical Architecture:**



Table-1: Components & Technologies:

| S.No | Component                       | Description  | Technology                     |  |
|------|---------------------------------|--|--------------------------------|--|
| 1.   | User Interface                  | Mobile Application   | HTML, CSS, JavaScript.         |  |
| 2.   | Application Logic               | Logic for a process in the application                     | Java                           |  |
| 3.   | Database                        | Data Type, Configurations etc.                             | MySQL                          |  |
| 4.   | Cloud Database                  | Database Service on Cloud                                  | IBM Cloud                      |  |
| 5.   | File Storage                    | File storage requirements                                  | Local Filesystem and IBM cloud |  |
| 6.   | Infrastructure (Server / Cloud) | Application Deployment on Cloud Local Server Configuration | Local and Cloud Foundry        |  |

## **Table-2: Application Characteristics:**

| S.No | Characteristics          | Description  | Technology               |
|------|--------------------------|--|--------------------------|
|      |                          |  |                          |
| 1.   | Open-Source Frameworks   | GitHub   | Internet hosting service |
| 2.   | Security Implementations | Application security: Veracode Firewall: cisco   | Network automation       |
| 3.   | Scalable Architecture    | It provides the room for expansion more database of smart bins added additionally can be updated.          | Cloud storage            |
| 4.   | Availability             | As the system control is connected to web server it is available 24*7 and can be accessed whenever needed. | Server                   |
| 5.   | Performance              | Performance is high it uses 5mb caches   | Wireless Sensor Network  |