

## Project Planning Phase

### Project Planning Template (Product Backlog, Sprint Planning, Stories, Storypoints)

|               |  |
|---------------|--|
| Date          | 18October 2022                                 |
| Team ID       | PNT2022TMID38943                               |
| Project Name  | Smart Waste Management for Metropolitan Cities |
| Maximum Marks | 8 Marks  |

#### Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Use the below template to create product backlog and sprint schedule

| Sprint   | Functional Requirement (Epic) | User Story Number | User Story / Task   | Story Points | Priority | Team Members   |
|----------|-------------------------------|-------------------|---|--------------|----------|--|
| Sprint-1 | simulation                    | USN-1             | Simulation creation by connecting sensors, Arduino UNO with python code.  | 20           | High     | B. Balaji<br>S. Hari haran<br>MK.Mohamed fardeen<br>G. Yogeshwaran |
| Sprint-2 | Web application Login         | USN-2             | Create a web application for level detection of waste using MIT app inverter. As a user, I can log into the application by entering email & password. | 10           | Medium   | B. Balaji<br>S. Hari haran<br>MK.Mohamed fardeen<br>G. Yogeshwaran |
| Sprint-2 | Login                         | USN-3             | Check the Log in credentials. If credentials are correct then move next page.   | 10           | Low      | B. Balaji<br>S. Hari haran<br>MK.Mohamed fardeen<br>G. Yogeshwaran |
| Sprint-3 | Software                      | USN-4             | Create device in the IOT Watson, workflow for IOT scenarios using local node red.   | 20           | High     | B. Balaji<br>S. Hari haran<br>MK.Mohamed fardeen<br>G. Yogeshwaran |
| Sprint-4 | dashboard                     | USN-5             | Web UI to make interact with the software. Bin level view in web app and notification received by municipality member, if bin is full.                | 20           | High     | B. Balaji<br>S. Hari haran<br>MK.Mohamed fardeen<br>G. Yogeshwaran |

**Project Tracker, Velocity & Burndown Chart: (4 Marks)**

| <b>Sprint</b> | <b>Total Story Points</b> | <b>Duration</b> | <b>Sprint Start Date</b> | <b>Sprint End Date (Planned)</b> | <b>Story Points Completed (as on Planned End Date)</b> | <b>Sprint Release Date (Actual)</b> |
|---------------|---------------------------|-----------------|--------------------------|----------------------------------|--|-------------------------------------|
| Sprint-1      | 20                        | 6 Days          | 24 Oct 2022              | 29 Oct 2022                      | 20   | 29 Oct 2022                         |
| Sprint-2      | 20                        | 6 Days          | 31 Oct 2022              | 05 Nov 2022                      | 20   | 05 Nov 2022                         |
| Sprint-3      | 20                        | 6 Days          | 07 Nov 2022              | 12 Nov 2022                      | 20   | 12 Nov 2022                         |
| Sprint-4      | 20                        | 6 Days          | 14 Nov 2022              | 19 Nov 2022                      | 20   | 19 Nov 2022                         |

**Velocity:**

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

$$AV = \frac{\textit{sprint duration}}{\textit{velocity}} = \frac{20}{10} = 2$$