**Project Planning Phase**

**Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)**

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| --- | --- |
| Date | 23 October 2022 |
| Team ID | PNT2022TMID05358 |
| Project Name | Smart Waste Management System for Metropolitan Cities. |
| Maximum Marks | 8 Marks |

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Functional**  **Requirement (Epic)** | **User Story**  **Number** | **User Story / Task** | **Story Points** | **Priority** | **Team**  **Members** |
| Sprint-1 | Objective | USN-1 | The smart bin system will alert the nearby garbage collectors when the bin overflows. | 6 | High | Sujitha G  Subiksha A  Subasri K  Sruthi R |
| Sprint-1 | Registration | USN-2 | The user(garbage collectors) can register for the application using the respective credentials provided to them. | 4 | Medium | Sujitha G  Subiksha A  Subasri K  Sruthi R |
| Sprint-1 | Designing | USN-3 | Designing a circuit with sensors and arduino interface | 6 | High | Sujitha G  Subiksha A  Subasri K  Sruthi R |
| Sprint-1 | Cloud | USN-4 | As an administrator, register in IBM cloud | 4 | Medium | Sujitha G  Subiksha A  Subasri K  Sruthi R |
| Sprint-2 | Code development | USN-5 | Develop a code to send a message when the bin overflows using ultrasonic sensor | 10 | High | Sujitha G  Subiksha A  Subasri K  Sruthi R |

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| --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Functional**  **Requirement (Epic)** | **User Story**  **Number** | **User Story / Task** | **Story Points** | **Priority** | Team members |
| Sprint-2 | Cloud Server | USN-6 | Cloud web server is created which connects the bin and the authority who is responsible for the disposal of waste from its bin | 10 | High | Sujitha G  Subiksha A  Subasri K  Sruthi R |
| Sprint-3 | Sensor | USN-7 | Detect the level of garbage using sensor and store it in the server for specific interval of time. | 10 | High | Sujitha G  Subiksha A  Subasri K  Sruthi R |
| Sprint-3 | Cloud | USN-8 | Authority should allocate which garbage collector should collect the waste at particular area | 10 | High | Sujitha G  Subiksha A  Subasri K  Sruthi R |
| Sprint-4 | Communicating Medium | USN - 9 | Garbage collector receives the message from the authority and goes to collect the garbage | 10 | High | Sujitha G  Subiksha A  Subasri K  Sruthi R |
| Sprint-4 | Communicating Medium | USN-10 | Once the garbage is collected the particular person should intimate the completion of the task | 5 | Medium | Sujitha G  Subiksha A  Subasri K  Sruthi R |
| Sprint -4 | Cloud database | USN-11 | Update the database after task completion | 5 | Medium | Sujitha G  Subiksha A  Subasri K  Sruthi R |

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Total Story Points** | **Duration** | **Sprint Start Date** | **Sprint End Date (Planned)** | **Story Points**  **Completed (as on**  **Planned End Date)** | **Sprint Release Date (Actual)** |
| Sprint-1 | 20 | 6 Days | 24 Oct 2022 | 29 Oct 2022 | 20 | 30 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)



**Burndown Chart:**

A burndown chart is a graphical representation of work left to do versus time. It is often used in agile [software](https://www.visual-paradigm.com/scrum/what-is-agile-software-development/) [development](https://www.visual-paradigm.com/scrum/what-is-agile-software-development/) methodologies such as [Scrum](https://www.visual-paradigm.com/scrum/scrum-in-3-minutes/). However, burn down charts can be applied to any project containing measurable progress over time.

[**https://www.visual-paradigm.com/scrum/scrum-burndown-chart/**](https://www.visual-paradigm.com/scrum/scrum-burndown-chart/) [**https://www.atlassian.com/agile/tutorials/burndown-charts**](https://www.atlassian.com/agile/tutorials/burndown-charts)

**Reference:** [**https://www.atlassian.com/agile/project-management**](https://www.atlassian.com/agile/project-management)

[**https://www.atlassian.com/agile/tutorials/how-to-do-scrum-with-jira-software**](https://www.atlassian.com/agile/tutorials/how-to-do-scrum-with-jira-software) [**https://www.atlassian.com/agile/tutorials/epics**](https://www.atlassian.com/agile/tutorials/epics) [**https://www.atlassian.com/agile/tutorials/sprints**](https://www.atlassian.com/agile/tutorials/sprints) [**https://www.atlassian.com/agile/project-management/estimation**](https://www.atlassian.com/agile/project-management/estimation) [**https://www.atlassian.com/agile/tutorials/burndown-charts**](https://www.atlassian.com/agile/tutorials/burndown-charts)