

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

Date	23 October 2022
Team ID	PNT2022TMID07013
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	Software	USN-1	Design the circuit which is to be integrated within the garbage bin using sensors.	10	High	Kritheebhan B Ragavan M Pandiyan M Venkatesan C
Sprint-1	Cloud	USN-2	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	Kritheebhan B Ragavan M Pandiyan M Venkatesan C
Sprint-2	Technology	USN-3	Connect cloud server and the bins.	5	High	Kritheebhan B Ragavan M Pandiyan M Venkatesan C

Sprint-2	Cloud Server	USN-4	Upload the details of truck driver and location of bin using GPS	5	Medium	Kritheebhan B Ragavan M Pandiyan M Venkatesan C
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Sprint-2	Sensor	USN-5	Detect the level of garbage using sensor and stores it in the server for specific interval of time.	10	High	Kritheebhan B Ragavan M Pandiyan M Venkatesan C
Sprint-3	Python, GPS	USN-6	Write the python code for intimating to the authority about alerting message regarding collection of garbage and where to collect	10	High	Kritheebhan B Ragavan M Pandiyan M Venkatesan C
Sprint-3	Cloud	USN-7	Authority should allocate which truck driver should collect the waste at particular area	10	Medium	Kritheebhan B Ragavan M Pandiyan M Venkatesan C

Sprint-4	Communicating Medium	USN-8	Truck driver receives the message from the authority and goes to collect the garbage	10	Medium	Kritheebhan B Ragavan M Pandiyan M Venkatesan C
Sprint-4	Communicating Medium	USN-9	After collecting the garbage, truck driver intimates that the garbage has collected.	10	Low	Kritheebhan B Ragavan M Pandiyan M Venkatesan C

#### 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	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	

#### 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)

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

**Burndown Chart:**

A burn down chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. 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.atlassian.com/agile/tutorials/burndown-charts>

**Reference:**

<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/epics> <https://www.atlassian.com/agile/tutorials/sprints>

<https://www.atlassian.com/agile/project-management/estimation>

<https://www.atlassian.com/agile/tutorials/burndown-charts>