

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

Date	30 October 2022
Team ID	PNT2022TMID00928
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	IBM cloud platform	USN-1	To create the IBM cloud used in the process of project And configure the IBM cloud	10	Medium	Akash M Buvanesh M Dinesh M Hariharan M
Sprint-1		USN-2	Create and configure the IBM Watson IOT platform for the processing of sensor data and create a system for waste management	10	High	Akash M Buvanesh M Dinesh M Hariharan M
Sprint-2		USN-3	Create a Node-RED service. Connect the Node-RED service to IBM Watson With the API keys from IBM IOT platform	5	High	Akash M Buvanesh M Dinesh M Hariharan M

<b>Sprint</b>	<b>Functional Requirement (Epic)</b>	<b>User Story Number</b>	<b>User Story / Task</b>	<b>Story Points</b>	<b>Priority</b>	<b>Team Members</b>
Sprint-2	Python IDLE IBM Watson Node Red services	USN-4	Develop the python code to find the GPS location using Latitude and Longitude (random values) and send it to Node red using IBM Watson platform and view location of bins on map	15	High	Akash M Buvanesh M Dinesh M Hariharan M
Sprint-3	IBM Watson Node Red services	USN-5	Create a IOT device to sense the level of bins and do code for device and send to Node Red using the API keys from Watson platform	20	High	Akash M Buvanesh M Dinesh M Hariharan M
Sprint-4	Python IDLE IBM Watson Node Red services	USN-6	Develop an application using Node Red to monitor the Bin values	10	Medium	Akash M Buvanesh M Dinesh M Hariharan M
Sprint-4		USN-7	Test the created web UI using the random values to sensors	10	High	Akash M Buvanesh M Dinesh M Hariharan M

### 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	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)

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