

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

Date	12 November 2022
Team ID	PNT2022TMID52180
Project Name	IOT based smart crop protection system for agriculture
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 Creation	USN-1	Connect sensors, Arduino and esp8266	2	High	Sharmini, Nanthini, Aiswarya, Thusleema
Sprint -1	Software	USN-2	Develop an application with MIT App inventor (Login page with firebase)	2	High	Sharmini, Nanthini, Aiswarya, Thusleema
Sprint -2	Software and Hardware	USN-3	Connect the hardware with IBM Cloud and API Integration	2	Medium	Sharmini, Nanthini, Thusleema
Sprint -2	Software	USN-4	Application development for project	2	High	Sharmini, Nanthini, Aiswarya
Sprint -3	Software	USN-5	Establishing Node-Red connection	2	Medium	Sharmini, Aiswarya
Sprint -3	Software	USN-6	Connecting application with Node-Red and further	2	High	Sharmini, Nanthini, Aiswarya

			application development			
Sprint -4	Testing	USN-7	Testing developed application andworking model of hardware	2	High	Sharmini, Nanthini, Aiswarya, Thusleema

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

Story Points – 8 points

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	16	5 Days	25 Oct 2022	29 Oct 2022	16	30 Oct 2022
Sprint-2	16	8 Days	31 Oct 2022	07 Nov 2022	16	08 Nov 2022
Sprint-3	16	6 Days	09 Nov 2022	13 Nov 2022	16	14 Nov 2022
Sprint-4	8	6 Days	15 Nov 2022	17 Nov 2022	8	17 Nov 2022 – 18 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)

Total Sprint Points = 56

Total Sprint = 4

Average Velocity =  $56/4 = 14$

### 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.

