Project Planning Phase

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

Date	18 October 2022
Team ID	PNT2022TMID47541
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	Land Enquiry	USN-1	As a user, I will give the surroundings information	2	Medium	Premnath
Sprint-1		USN-2	As a user, I will give the size of the land	3	High	Manikandan
Sprint-1		USN-3	As a user, I will give the type of plant going to be planted	3	High	Tata Pravin
Sprint-2	Watering plant	USN-4	As a user, I can water the plant using rain water harvesting	2	Low	Vikram
Sprint-2		USN-5	As a user, I automate the process of watering the plant	4	High	Gunaseelan
Sprint-2		USN-6	As a user, I can water the plants using the ground water if the water saved in the tank is empty	2	High	Premnath
Sprint-3	Weather Prediction	USN-7	As a user, I can monitor the weather condition	2	Medium	Manikandan
Sprint-3		USN-8	As a user, I can predict the weather condition	2	High	Tata Pravin
Sprint-3	Monitoring Field	USN-9	As a user, I can monitor the movement of animals and birds in the agricultural land	3	High	Vikram
Sprint-4	Notification	USN-10	As a user, I can register myself to get notification	3	High	Gunaseelan

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-4		USN-11	As a user, I can water the plant by pressing the button in the application installed in the mobile	2	High	Gunaseelan

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	30 Oct 2022	04 Nov 2022	20	04 Nov 2022
Sprint-3	20	6 Days	05 Nov 2022	10 Nov 2022	20	10 Nov 2022
Sprint-4	20	6 Days	11 Nov 2022	16 Nov 2022	20	16 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)

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

$$\boldsymbol{AV = \frac{20}{6} = 3.33}$$

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.

Step 1: Create Estimate Effort

	Day1	Day2	Day3	Day4	Day5	Day6
Effort Remaining	50	40	33	20	10	0

Step 2: Track Daily Process

Sprint	Hours	Day1	Day2	Day3	Day4	Day5	Day6	Total
Sprint 1	10	3	2	2	1	1	1	10
Sprint 2	10	2	2	2	2	1	1	10
Sprint 3	10	1	1	1	3	2	2	10
Sprint 4	10	2	2	3	1	1	1	10

Step 3: Compute the Actual

	Day1	Day2	Day3	Day4	Day5	Day6
Actual Effort	50	34	25	20	10	0
Effort Remaining	50	40	33	15	8	0

Step 4: Burndown Chart