

Project Planning Phase

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

Date	19 November 2022
Team ID	PNT2022TMID00408
Project Name	SmartFarmer – IoT Based Farming Application
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	Creation of Front-end Application	USN-1	As a team member, I create a front-end application that forms the basis of this project.	10	High	All Members
Sprint-1	Registration	USN-2	As a user, I will register with my phone number and receive an OTP to confirm my registration.	1	Medium	1,2
Sprint-1	Login	USN-3	As a user, I can log into the application by entering my phone number and confirming my login with the OTP received.	2	Medium	1,2
Sprint-1	Dashboard	USN-4	As a user, I can use the application to see options for managing, controlling and monitoring my sensors and systems.	5	High	1,2
Sprint-1	End Session	USN-5	As a user, I can end my session at any time I like, if not, the application will run in the background until the application process itself is terminated.	2	Low	1,2
Sprint-2	Setting up Sensors and Systems	USN-6	As a user, I first setup my sensors and systems at a physical level, configuring them as required.	20	High	1,3
Sprint-3	Integration into IBM Cloud	USN-7	As a team member, I integrate the app into the IBM Cloud Environment.	20	High	1,2,3

Sprint-4	Testing	USN-8	As a user, after the setup and configuration process, I test to check if my sensors are working in place and react accordingly to the conditions, I subject them to.	5	High	2,4
Sprint-4	Merging Frontend and Backend	USN-9	As a team member, I combine my frontend and backend together to have a functional application.	5	High	1,3
Sprint-4	Deployment	USN-10	As a team member, I deploy my application and provide support for it, collecting feedback and improving it.	10	Very High	All Members

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	0	19 November 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	0	19 November 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	0	19 November 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 November 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)

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

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.