Project Planning Phase

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

Date	18 October 2022
Team ID	PNT2022TMID07016
Project Name	Smart Farmer - IoT Enabled Smart Farming Monitoring 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	Objective	USN-1	As a system, the soil moisture should detect the soil moisture level, humidity sensor should detect the humidity present in atmosphere, temperature sensor detects the temperature	8	High	Manoj T Rohith R
Sprint-1	Features	USN-2	As a system, water level indicator tells us about the level of water in the well	2	High	Sathishkumar S Vishnukumar D
Sprint-1	Features	USN-3	As a system, when water reaches the minimum threshold value it alerts with LED	5	Low	Vishnukumar D Manoj T
Sprint-1	Features	USN-4	As a system, when soil moisture reaches minimum value or reaches to maximum value, it alerts with red and green LED respectively	5	Low	Sathishkumar S Rohith R
Sprint-2	Focus	USN-5	As a system, when water reaches the minimum threshold value it automatically turns off the motor	10	High	Sathishkumar S Manoj T
Sprint-2	Focus	USN-6	As a system, when soil moisture reaches minimum value or reaches to maximum value, it alerts the user through notification	10	High	Vishnukumar D Rohith R

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-3	Data Transfer	USN-6	As a program, it should retrieve the API key of the IBM cloud to send the details of the system.	2	Low	Rohith R Vishnukumar D
Sprint-3	Data Transfer	USN-7	As a system, it should send the data of sensor values along with water level data to the IBM cloud	5	Medium	Manoj T Sathishkumar S
Sprint-3	Data Transfer	USN-8	As a cloud system, the IBM cloud should send the data to NodeRed	2	Medium	Vishnukumar D Sathishkumar S
Sprint-3	Data Transfer	USN-9	As a system, it should collect the data from the NodeRed and give it to the backend of the mit app.	3	Medium	Rohith R Manoj T
Sprint-3	Data Transfer	USN-10	As an application, it should display the details of the sensor values, water level value and other details to the user through the frontend of the mit app.	8	High	Vishnukumar D Sathishkumar S
Sprint-4	Registration	USN-11	As a user, I must first register my email and mobile number in the website	2	High	Sathishkumar S Rohith R

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-4	Registration	USN-15	As a user, I must receive confirmation mail and SMS on registration	2	Medium	Vishnukumar D Manoj T
Sprint-4	Login	USN-16	As a user, I can login into the web application through email and password.	3	High	Vishnukumar D Sathishkumar S
Sprint-4	Dashboard	USN-17	As a user, I can access the dashboard and make use of available resources.	3	Medium	Manoj T Rohith R
Sprint-4	Focus	USN-18	As a user, I must receive the notification when sensor values and water level value hit the threshold values	5	High	Vishnukumar D Manoj T
Sprint-4	Action	USN-19	As an admin, I must receive information about the threshold value and can perform action (motor on/off) based on the analysis.	5	High	Rohith R Sathishkumar S

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

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

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
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