

Project Planning phase

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

Date	26 October 2022
Team ID	PNT2022TMID06458
Project Name	Real Time River Water Quality Monitoring and Control System
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	Registration	USN-1	As a user, I can register for the application by entering my email, password and confirming my password	2	High	Abi, Gobika, Kanishka, Iswarya
Sprint-1	Registration Via Facebook	USN-2	As a user, I can register for the application through Facebook	2	Low	Abi, Gobika, Kanishka, Iswarya
Sprint-1	Registration via Gmail	USN-3	As a user, I can register for the application through Gmail	2	Medium	Abi, Gobika, Kanishka, Iswarya
Sprint-2	Confirmation	USN-4	As a user, I will receive confirmation email once I have registered for the application	1	High	Abi, Gobika, Kanishka, Iswarya
Sprint-2	Login	USN-5	As a user, I can log into the application by entering email and password	1	High	Abi, Gobika, Kanishka, Iswarya
Sprint-2	IBM Cloud service	USN-6	Get access to IBM Cloud Services	2	High	Abi, Gobika, Kanishka, Iswarya

Sprint	Functional Requirement (Epic)	User Story Number	User Story/Task	Story Points	Priority	Team members
Sprint-3	Create IBM Watson and Device settings	USN-7	To create IBM Watson IoT platform and integrate the microcontroller with it to send sensed data to cloud	2	High	Abi, Gobika, Kanishka, Iswarya
Sprint-3	Create Node-Red service	USN-8	To create a NODE-RED service to integrate the IBM Watson along with Web UI	2	Medium	Abi, Gobika, Kanishka, Iswarya
Sprint-3	Create Web UI	USN-9	To create Web UI to access the data from cloud and display all parameters	2	Medium	Abi, Gobika, Kanishka, Iswarya
Sprint-3	To develop a python code	USN-10	Create Python code to sense the physical quantity and store the data	1	Medium	Abi, Gobika, Kanishka, Iswarya
Sprint-4	Publish data to IBM cloud	USN-11	Publish data that is sensed by the microcontroller to the cloud	3	High	Abi, Gobika, Kanishka, Iswarya
Sprint-4	Fast SMS service	USN-12	Use fast SMS to send alert message once the parameters like ph, turbidity and temperature goes beyond the threshold	3	High	Abi, Gobika, Kanishka, Iswarya
Sprint-4	Testing	USN-13	Testing of project and final deliverables	3	Medium	Abi, Gobika, Kanishka, Iswarya

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).

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

Burndown Chart:

A burndown 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, burndown charts can be applied to any project containing measurable progress over time.

Burndown Chart

