

## Project Planning Phase

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

Date	25 October 2022
Team ID	PNT2022TMID11410
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	1)SALIK 2)KARTHIK
Sprint-1	Registration via facebook	USN-3	As a user i can register for the application through facebook	2	Low	1)MANI 2)MUTHUPANDI
Sprint-1	Registration via Mail ID	USN-4	As a user, I can register for the application through Gmail	2	Medium	1)SHAFIQ 2)KARTHIK
Sprint-2	Confirmation	USN-2	As a user i will receive confirmation email once i have registered for the application	1	High	1)SALIIK 2)MUTHUPANDI
Sprint-2	Login	USN-5	As a user, I can log into the application by entering email & password	1	High	1)MANI 2)SHAFIQ
Sprint-2	IBM cloud service access		Get access to ibm cloud service	2	High	1) SALIK 2)SHAFIQ
Sprint-3	Create the IBM Watson iot and device setting	USN 6	To create the ibm watson iot platform and integrate the microcontroller with it to send the sensed data on cloud	2	High	1)SALIIK 2)MUTHUPANDI
Sprint-3	Create a node red service	USN 7	To create a node red service to integrate the IBM watson along with the web ui	2	Medium	1)MANI 2)SHAFIQ
Sprint-3	To develop a python code	USN 9	Create a python code to sense the physical quantity and store data	2	Medium	1)MANI 2)SHAFIQ

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-3	Create a web UI	USN 8	To create a web UI to access the data from the cloud and display all parameter	2	Medium	1)SALIIK 2)MUTHUPANDI
Sprint-3	Publish dta to cloud	USN 10	Publish data that is sensed by the microcontroller to the cloud	3	High	1)SALIIK 2)MUTHUPANDI
Sprint-3	Fast SMS service	USN 11	Use Fast sms to send alert messages once the parameter like pH turbidity and temperature goes beyond the threshold	3	High	1)SHAFIQ 2)KARTHIK
Sprint-3	Testing	USN 12	Testing of project and final deliverables	3	Medium	1)SALIK 2)MUTHUPANDI 3)KARTHIK 4)SHAFIQ 5)MANI

#### 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	5 Days	24 Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	06 Nov 2022
Sprint-3	20	10 Days	07 Nov 2022	16 Nov 2022	20	16 Nov 2022
Sprint-4	20	9 Days	16 Nov 2022	24 Nov 2022	20	25 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)

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

**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, burn down charts can be applied to any project containing measurable progress over time.

Burndown Chart

