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

Date	09 Nov 2022
Team ID	PNT2022TMID15074
Project Name	Project – 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 a 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, and password, and confirming my password.	3	High	Prasanna
Sprint-1	Confirmation Email	USN-2	As a user, I will receive a confirmation email once I have registered for the application	4	High	Rohini
Sprint-2	Authentication	USN-3	As a user, I can register for the application through Gmail and mobile app.	4	Medium	Madhumitha, Vijayadharshani

Sprint-2	Login	USN-4	As a user, I can log into the application by entering email & password	3	High	Prasanna, Madhumitha
Sprint-2	IBM Cloud Service Access	USN-5	Get access to IBM cloud services.	4	High	Vijayadharshani, Rohini
Sprint-3	Create the IBM Watson IoT and device settings	USN-6	To create the IBM Watson IoT Platform and integrate the microcontroller with it, to send the sensed data on Cloud	2	High	Madhumitha, Vijayadharshani
Sprint-2	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	Rohini, Prasanna
Sprint-3	Create a Web UI	USN-8	To create a Web UI, to access the data from the cloud And display all parameters.	6	Low	Madhumitha

Sprint	**Functional Requirement (Epic)**	**User Story Number**	**User Story / Task**	**Story Points**	**Priority**	**Team Members**
Sprint-3	To develop a Python code	USN-9	Create a python code to sense the physical quantity and store data	7	Medium	Vijayadharshani, Madhumitha
Sprint-3	Publish Data to cloud.	USN-10	Publish Data that is sensed by the microcontroller to the Cloud	7	High	Rohini

Sprint-4	Fast-SMS Service	USN-11	Use Fast SMS to send alert messages once the parameters like pH, Turbidity and temperature goes beyond the threshold	6	High	Prasanna, Vijayadharshani, Rohini
Sprint-4	Testing	USN-12	Testing of project and final deliverables	7	High	Prasanna, Vijayadharshani, Madhumitha

Project Tracker, Velocity & Burndown Chart: (4 Marks)

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

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)

Burndown Chart: