

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

Date	18 October 2022
Team ID	PNT2022TMID21489
Project Name	Essential Water Quality Analysis and Prediction using Machine learning
Maximum Marks	8 Marks

**Product Backlog, Sprint Schedule, and Estimation (4 Marks)**

<b>Sprint</b>	<b>Functional Requirement (Epic)</b>	<b>User Story Number</b>	<b>User Story / Task</b>	<b>Story points</b>	<b>Priority</b>	<b>Team members</b>
Sprint-2	Usability & Compatibility	USN-1	As a mobile user, I want to use the application using my mobile phone.	I can use my phone to access the website.	Medium	Donifa Babu B M Eshwaran ABR
Sprint 1	Data management	USN-2	As a user, I can enter data into the website securely	I can enter data only within the constraints	High	Donifa Babu B M Eshwaran ABR
Sprint 1		USN-3	As a user, I should give parameters of water as inputs	I can enter data only within the constraints	High	Sadurthika M Vishnuram VR

Sprint 1		USN-4	As a user, I can view the water quality in the dashboard	I can get the classification category of water	High	Eshwaran ABR Donifa Babu B M
Sprint 3	Authorization levels	USN-5	As an executive, I should check the navigation of the website.	I can make the usability of the website easier.	Medium	Sadurthika M Donifa Babu B M
Sprint 2		USN-6	As an executive, I should check on the accuracy of the results on the website.	I can get a visual representation of the results	High	Eshwaran ABR Vishnuram VR
Sprint 4	Pre-processing	USN-7	As an administrator, I can add new predictions to the training dataset	New records are visible in the updated dataset	Low	Donifa Babu B M Sadurthika M
Sprint 4		USN-8	As an administrator, I can remove incomplete records	Updations are visible in the updated dataset	Low	Vishnuram VR Sadurthika M
Sprint 4		USN-9	As an administrator, I can remove unimportant features	Updations are visible in the updated dataset	Low	Eshwaran ABR Donifa Babu B M

### 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	29 Oct 2022	03 Nov 2022	20	03 Nov 2022
Sprint-2	20	6 Days	05 Nov 2022	10 Nov 2022	20	10 Nov 2022
Sprint-3	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022
Sprint-4	20	6 Days	21 Nov 2022	26 Nov 2022	20	26 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 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.