

## Project Planning Phase

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

Date	18 October 2022
Team ID	PNT2022TMID52625
Project Name	Efficient Water Quality Analysis and Prediction Using Machine Learning
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	5	High	Prem B Akash Raj N
Sprint-1		USN-2	As a user, I will receive confirmation email once I have registered for the application	5	High	Prem B Akash Raj N
Sprint-1		USN-3	As a user, I can register for the application through Phone number	2	Low	Prem B Akash Raj N
Sprint-1		USN-4	As a user, I can register for the application through Gmail	3	Medium	Prem B Akash Raj N

<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-1	Login (User)	USN-5	As a user, I can log into the application by entering email & password	5	High	Prem B Akash Raj N
Sprint-2	Dashboard	USN-6	Once I have logged in, I can see my dashboard	6	Medium	Prem B Akash Raj N
Sprint-2	Web Access	USN-7	As a customer I can access the website to predict the water quality	7	High	Devatharshini S Vijay Shanmugan S
Sprint-2	Prediction	USN-8	As an end user, when I enter the input parameters of water, the website should predict the exact water quality	7	High	Devatharshini S Vijay Shanmugan S
Sprint-3	Analysis	USN-9	The end users need to analyse the water quality, which is achieved through the provided dataset by which the model is built and trained	10	Medium	Devatharshini S Vijay Shanmugan S
Sprint-3	Security	USN-10	Users expect their data and surfing to be secured	10	Medium	Devatharshini S Vijay Shanmugan S
Sprint-4	Database Access	USN-11	The administrator should maintain the website and update the website regularly.	20	Low	Devatharshini S Vijay Shanmugan 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		
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022		
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022		
Sprint-4	20	6 Days	14 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)

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

### **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.

<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>

<https://www.atlassian.com/agile/tutorials/sprints>

<https://www.atlassian.com/agile/project-management/estimation>

<https://www.atlassian.com/agile/tutorials/burndown-charts>