

## Project Planning Phase

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

Date	29 October 2022
Team ID	PNT2022TMID16005
Project Name	Efficient Water Quality Analysis & Prediction using Machine Learning
Maximum Marks	8 Marks

#### Product Backlog, Sprint Schedule, and Estimation:

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Data Preparation	USN-1	Collecting water dataset and pre-processing it	10	High	S Shankar Pirajin T Surya
Sprint-1	Model Building	USN-2	Create an ML model to predict waterquality	5	Medium	S Shankar Pirajin T Surya S R Vishal M G Yaswanth
Sprint-1	Model Evaluation	USN-3	Calculate the performance, error rate, and complexity of the ML model and evaluate thedataset based on the parameter that the dataset consists of.	5	Medium	
Sprint-2	Model Deployment	USN-4	As a user, I need to deploy the model and need to find the results.	20	Medium	
Sprint-3	Web page (Form)	USN-5	As a user, I can use the application by entering the water dataset to analyze or predict the results.	20	Medium	S Shankar Pirajin T Surya S R Vishal M G Yaswanth
Sprint-4	Dashboard	USN-6	As a user, I can predict the water quality by clicking the submit button and the application will show whether the water is efficientfor use or not.	20	High	S R Vishal M G Yaswanth

### Project Tracker:

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date	Story Points Completed	Sprint Release Date
Sprint-1	20	6 Days	23 Oct 2022	28 Oct 2022	20	29 Oct 2022
Sprint-2	20	7 Days	29 Oct 2022	04 Nov 2022	20	05 Nov 2022
Sprint-3	20	7 Days	05 Nov 2022	11 Nov 2022	20	12 Nov 2022
Sprint-4	20	8 Days	12 Nov 2022	19 Nov 2022	20	19 Nov 2022

### Velocity:

Sprint 1: 1 user stories x 20 story points = 20

Sprint 2: 1 user stories x 20 story points = 20

Sprint 3: 1 user stories x 20 story points = 20

Sprint 4: 1 user stories x 20 story points = 20

Total = 80

The average sprint velocity is  $80 \div 4 = \mathbf{20}$ .

### Burndown Chart:

A burndown chart is a graphical representation of **”WORK LEFT to do versus TIME”**. It is the amount of work that has been completed in an epic or sprint and the total work remaining. burndown charts are used to predict your team’s likelihood of completing their work in the time available.