

Project Planning Phase

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

Date	18 October 2022
Team ID	PNT2022TMID24570
Project Name	Project - Efficient Water Quality Analysis & Prediction using Machine Learning
Maximum Marks	8 Marks

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

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Data Collection	USN-1	Collect the appropriate dataset for predicting the water quality	10	HIGH	Manikandan P
Sprint-1	Data Preprocessing	USN-2	Transform the collected data into useful, readable format by cleaning the data	10	HIGH	Ambareeshkumar K
Sprint-2	Model Building	USN-3	Calculate the Water Quality Index (WQI) using by building a machine learning model	10	MEDIUM	Karthikeyan S
Sprint-2	Model Building	USN-4	Splitting the Model into Training and Testing from the overall datasets	10	MEDIUM	Manikandan P
Sprint-3	Training and testing	USN-5	Training the model using Regression algorithm and testing the performance of the model	10	MEDIUM	Ambareeshkumar K
Sprint-3	Application building	USN-6	Build the HTML and python code for frontend and connecting to the model	10	MEDIUM	Ananth S S
Sprint-4	Application building	USN-7	Run the flask app with all the model connection	10	MEDIUM	Ananth S S
Sprint-4	Implementation of Application	USN-8	Complete the application and deploy it in IBM cloud	10	MEDIUM	Ananth S 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	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 6-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)

$$AV = 20/6 = 3.33$$

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.



