

Project Planning Phase

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

Date	18 October 2022
Team ID	PNT2022TMID25646
Project Name	Efficient Water Quality Analysis and 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
Sprint1	Data Collection	USN-1,2	Collecting/downloading dataset for pre-processing .	10	High	Muhammathuabdulkalam M, Nethaji B, Avinash N, Aravindh M
Sprint1		USN-1,2	Data pre-processing-formats the data and handles the missing data in the dataset..	10	Medium	Muhammathu abdulkalam M, Nethaji B, Avinash N, Aravindh M
Sprint2	Model Building	USN-1,2	Calculate the Water Quality Index (WQI) using specified formula for every parameter.	10	High	Muhammathu abdulkalam M, Nethaji B, Avinash N, Aavindh M
Sprint2		USN-1,2	Splitting the data into training and testing data set from the entire dataset.	10	High	Muhammathu abdulkalam M, Nethaji B, Avinash N, Aravindh M
Sprint3	Training and Testing	USN-1,2	Training the model using Random Forest Regression algorithm and testing the performance of the model (accuracy rate)	20	High	Muhammathu abdulkalam M, Nethaji B, Avinash N, Aravindh M
Sprint4	Implementation of Web page	USN-1,2	Implementing the web page for collecting the data from user	10	High	Muhammathu abdulkalam M, Nethaji B, Avinash N, Aravindh M
Sprint4		USN-1,2	Deploying the model using IBM Cloud and IBM Watson Studio	10	Medium	Muhammathu abdulkalam M, Nethaji B, Avinash N, Aravindh 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)
Sprint1	20	6 Days	24 Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint2	20	6 Days	31 Oct 2022	05 Nov 2022	20	05 Nov 2022
Sprint3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022

Velocity:

Sprint 1 Average Velocity:

$$\text{Average Velocity} = 20/6 = 3.3$$

Sprint 2 Average Velocity:

$$\text{Average Velocity} = 20/6 = 3.3$$

Sprint 3 Average Velocity:

$$\text{Average Velocity} = 20/6 = 3.3$$

Sprint 4 Average Velocity:

$$\text{Average Velocity} = 20/6 = 3.3$$

Burndown Chart:

