Project Planning Phase

Project Planning Template (Product Backlog, Sprint Planning, Stories, Storypoints)

Date	28 October 2022
Team ID	PNT2022TMID52728
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.	12	High	Rithika VA Divya Dharshini M
Sprint1	Data Pre processin g	USN-1,2	formats the data and handles the missing data in the dataset.	8	Medium	Snekha C Shobika P
Sprint2	Model Building	USN-1,2	Calculate the Water Quality Index (WQI) using specified formulafor every parameter.	10	High	Divya Dharshini M, Snekha C
Sprint2	Accessing datasets	USN-1,2	Splitting the data into training and testing dataset from the entire dataset.	10	High	Rithika VA, Shobika P
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	Snekha C, Shobika P
Sprint4	Implementation of Web page and user login	USN-1,2	Implementing the web page for collecting the data from user	12	High	Rithika VA, Divya Dharshini M
Sprint4	Web application	USN-1,2	It will display the current information of the water quality.	8	Medium	Snekha C, Divya Dharshini 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:

Imagine we have a 10 days 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.

Average Velocity:

Sprint 1 Average Velocity:

Average Velocity = 20/4 = 5

Sprint 2 Average Velocity:

Average Velocity = 20/4 = 5

Sprint 3 Average Velocity:

Average Velocity = 20/4 = 5

Sprint 4 Average Velocity:

Average Velocity = 20/4 = 5

Burndown Chart: