Project Planning Phase

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

Date	30 October 2022
Team ID	PNT2022TMID32824
Project Name	Efficient Water Quality Analysis & 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	Data Collection	USN-1	Collecting downloading dataset for preprocessing	10	High	Naveen Abimanyu
		USN-2	Data pre-processing formats the data and handles the missing data in the dataset	10	High	Naveen Abimanyu
Sprint-2	Model Building	USN-3	Calculate the Water Quality Index (WQI) using specified formula for every parameter.	20	Medium	Harish,Jai Krishna, Amresh
		USN-4	Splitting the data into training and testing data set from the entire dataset.	10	High	Jai Krishna, Amresh
Sprint-3	Training and Testing	USN-5	Training the model using Random Forest Regression algorithm and testing the performance of the model	10	Medium	Naveen Abimanyu

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-4	Implementation of Web page	USN-6	Implementing the web page for collecting the data from user	10	High	Naveen Abimanyu Harish,Jai Krishna, Amresh
		USN-7	Deploying the model using IBM Cloud and IBM Watson Studio.	10	Medium	Naveen Abimanyu Harish,Jai Krishna, Amresh

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 10 (points per sprint). Let’s calculate the team’s average velocity (AV) per iteration unit (story points per day).

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