

Project Planning Phase

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

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|---------------|---|
| Date | 18 October 2022 |
| Team ID | PNT2022TMID15657 Efficient Water Quality Analysis and Prediction using Machine Learning |
| Project Name | Efficient Water Quality Analysis and 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 dataset for pre-processing | 10 | High | Deepthivarsha E G Basireddygaru Dhavala Anusha R Abinaya Kamatchi |
| Sprint-1 | | USN-2 | Data pre-processing-Used to transform the data into useful format. | 10 | Medium | Deepthivarsha E G Basireddygaru Dhavala Anusha R Abinaya Kamatchi |
| Sprint-2 | Model Building | USN-3 | Calculate the Water Quality Index (WQI) using Regression algorithm of machine learning. | 10 | High | Deepthivarsha E G Basireddygaru Dhavala Anusha R Abinaya Kamatchi |
| Sprint-2 | | USN-4 | Splitting the data into training and testing from the entire dataset. | 10 | Medium | Deepthivarsha E G Basireddygaru Dhavala Anusha R Abinaya Kamatchi |
| Sprint-3 | Training and Testing | USN-5 | Training the model using regression algorithm and testing the performance of the model | 20 | Medium | Deepthivarsha E G Basireddygaru Dhavala Anusha R Abinaya Kamatchi |
| Sprint-4 | Implementation of Web page | USN-6 | Implementing the web page for collecting the data from user | 10 | High | Deepthivarsha E G Basireddygaru Dhavala Anusha R Abinaya Kamatchi |
| Sprint-4 | | USN-6 | Deploying the model using IBM Cloud and IBM Watson Studio | 10 | Medium | Deepthivarsha E G Basireddygaru Dhavala Anusha R Abinaya Kamatchi |

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:

Sprint 1 Average Velocity:

$$\text{Average Velocity} = 20/2 = 10$$

Sprint 2 Average Velocity:

$$\text{Average Velocity} = 20/2 = 10$$

Sprint 3 Average Velocity:

$$\text{Average Velocity} = 20/1 = 20$$

Sprint 4 Average Velocity:

$$\text{Average Velocity} = 20/2 = 10$$

Burndown Chart:

