**Project Planning Phase**

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

|  |  |
| --- | --- |
| Date | 22 October 2022 |
| Team ID | PNT2022TMID30408 |
| 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** | **Function**  **al**  **Require ment (Epic)** | **User Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| Sprint-1 | Data Collection | USN-1 | Collect the appropriate dataset f predicting the water quality. o r | 10 | High | Joan Sharon N |
| Sprint-1 |  | USN-2 | Data Preprocessing – Used to transform the data into useful format. | 7 | Medium | Priyadharshini CN  Renisha Magdalene  N  Rubina angel D |
| Sprint-2 | Model Building | USN-3 | Calculate the Water Quality Index (WQI) using Regression algorithm of Machine Learning. | 10 | High | Joan Sharon N  Renisha Magdalene  N  Rubina angel D |

Sprint-2 USN-4 Splitting the Model into Training a 7 Medium Priyadharshini CN Testing from the overall dataset. n

d

Sprint-3 Training and USN-5 Train the Model using Regression algorithm 10 High Priyadharshini CN

Testing and Testing the Performance of the model. Renisha Magdalene N

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Functional**  **Requirement**  **(Epic)** |  | **User**  **Story Numbe**  **r** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
| Sprint-4 | Implementation the Application | of | USN-6 | Predict the Water Quality Index (WQI) and recommend the appropriate purification technique. | 10 | High | Renisha Magdalene  N  Rubina angel D  Priyadharshini C N |
| Sprint-4 |  |  | USN-7 | Deploy the Model on IBM Cloud. | 7 | Medium | Rubina angel D  Priyadharshini C N |

**Project Tracker, Velocity & Burndown Chart: (4 Marks)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sprint** | **Total Points** | **Story** | **Duration** | **Sprint Start Date** | **Sprint End (Planned)** | **Date** | **Story Points**  **Completed (as on**  **Planned End**  **Date)** | **Sprint Release (Actual)** | **Date** |
| Sprint-1 | 10 |  | 6 Days | 24 Oct 2022 | 29 Oct 2022 |  | 8 | 29 Oct 2022 |  |
| Sprint-2 | 10 |  | 6 Days | 31 Oct 2022 | 05 Nov 2022 |  | 7 | 05 Nov 2022 |  |
| Sprint-3 | 10 |  | 6 Days | 07 Nov 2022 | 12 Nov 2022 |  | 8 | 12 Nov 2022 |  |
| Sprint-4 | 10 |  | 6 Days | 14 Nov 2022 | 19 Nov 2022 |  | 7 | 19 Nov 2022 |  |

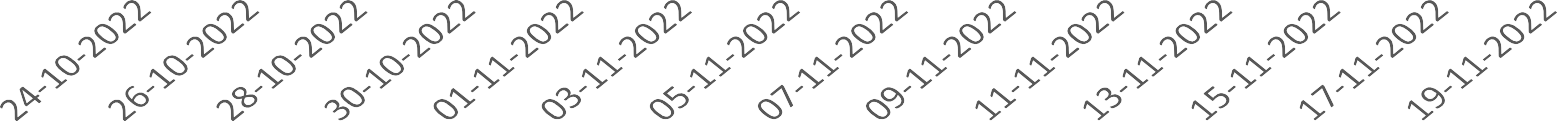
**Velocity:**

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).



**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 m](https://www.visual-paradigm.com/scrum/what-is-agile-software-development/)ethodologies such as [Scrum. H](https://www.visual-paradigm.com/scrum/scrum-in-3-minutes/)owever, burn down charts can be applied to any project containing measurable progress over time.



**BURNDOWN**

**CHART**

45

40

35

30

25

20

15

10

5

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