

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

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| Date | 18 October 2022 |
| Team ID | PNT2022TMID21489 |
| Project Name | Essential 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 |
|---------------|--------------------------------------|--------------------------|--|--|-----------------|---------------------------------|
| Sprint-2 | Usability & Compatibility | USN-1 | As a mobile user, I want to use the application using my mobile phone. | I can use my phone to access the website. | Medium | Donifa Babu B M Eshwaran ABR |
| Sprint 1 | Data management | USN-2 | As a user, I can enter data into the website securely | I can enter data only within the constraints | High | Donifa Babu B M Eshwaran ABR |
| Sprint 1 | | USN-3 | As a user, I should give parameters of water as inputs | I can enter data only within the constraints | High | Sadurthika M Vishnuram VR |

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|----------|----------------------|-------|--|--|--------|---------------------------------|
| Sprint 1 | | USN-4 | As a user, I can view the water quality in the dashboard | I can get the classification category of water | High | Eshwaran ABR Donifa Babu B M |
| Sprint 3 | Authorization levels | USN-5 | As an executive, I should check the navigation of the website. | I can make the usability of the website easier. | Medium | Sadurthika M Donifa Babu B M |
| Sprint 2 | | USN-6 | As an executive, I should check on the accuracy of the results on the website. | I can get a visual representation of the results | High | Eshwaran ABR Vishnuram VR |
| Sprint 4 | Pre-processing | USN-7 | As an administrator, I can add new predictions to the training dataset | New records are visible in the updated dataset | Low | Donifa Babu B M Sadurthika M |
| Sprint 4 | | USN-8 | As an administrator, I can remove incomplete records | Updations are visible in the updated dataset | Low | Vishnuram VR Sadurthika M |
| Sprint 4 | | USN-9 | As an administrator, I can remove unimportant features | Updations are visible in the updated dataset | Low | Eshwaran ABR Donifa Babu B 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) |
|----------|--------------------|----------|-------------------|---------------------------|---|------------------------------|
| Sprint-1 | 20 | 6 Days | 25 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 10-day 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 (story points per day)

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

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 methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.