**Project Planning Phase**

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

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| --- | --- |
| Date | 25 June 2025 |
| Team ID | LTVIP2025TMID34541 |
| Project Name | TrafficTelligence: Advanced Traffic Volume Estimation with Machine Learning |
| Maximum Marks | 5 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 | As a user, I want to collect and label traffic volume datasets with weather, time, and historical context. | 3 | High | 1, N Hema Gopika Devi  2,  Mohammad Kouser Ali  3, Mohammad Dastagiri Ahmed Basha  4, Mohammad Fairoz |
| Sprint-1 | Data Preprocessing | USN-2 | As a developer, I want to clean, normalize, and structure the data to improve model accuracy. | 2 | High | 1, N Hema Gopika Devi  2, Mohammad Kouser Ali  3, Mohammad Dastagiri Ahmed Basha  4, Mohammad Fairoz |
| Sprint-2 | Model Training | USN-3 | As a data scientist, I want to train and optimize regression models (Random Forest, XGBoost). | 5 | High | 1, N Hema Gopika Devi  2, Mohammad Kouser Ali  3, Mohammad Dastagiri Ahmed Basha  4, Mohammad Fairoz |
| Sprint-2 | Model Evaluation | USN-4 | As a developer, I want to evaluate models using RMSE, MAE, and R² Score. | 2 | Medium | 1, N Hema Gopika Devi  2, Mohammad Kouser Ali  3, Mohammad Dastagiri Ahmed Basha  4, Mohammad Fairoz |
| Sprint-3 | UI Development | USN-5 | As a user, I want to enter data on a web app and view predicted traffic volume instantly. | 3 | Medium | 1, N Hema Gopika Devi  2, Mohammad Kouser Ali  3, Mohammad Dastagiri Ahmed Basha  4, Mohammad Fairoz |
| Sprint-3 | Model Deployment | USN-6 | As a developer, I want to deploy the trained model and integrate it with the user interface. | 4 | Low | low1, N Hema Gopika Devi  2, Mohammad Kouser Ali  3, Mohammad Dastagiri Ahmed Basha  4, Mohammad Fairoz |

**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 | 13 June ‘2025 | 19 June ‘2025 | 20 | 19 June ‘2025 |
| Sprint-2 | 20 | 6 Days | 15 June ‘2025 | 21 June ‘2025 | 20 | 21 June ‘2025 |
| Sprint-3 | 20 | 6 Days | 17 June ‘2025 | 23 June ‘2025 | 20 | 23 June ‘2025 |
| Sprint-4 | 20 | 6 Days | 19 June ‘2025 | 25 June ‘2025 | 20 | 25 June ‘2025 |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**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)



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

[**https://www.visual-paradigm.com/scrum/scrum-burndown-chart/**](https://www.visual-paradigm.com/scrum/scrum-burndown-chart/)

[**https://www.atlassian.com/agile/tutorials/burndown-charts**](https://www.atlassian.com/agile/tutorials/burndown-charts)

**Reference:**

[**https://www.atlassian.com/agile/project-management**](https://www.atlassian.com/agile/project-management)

[**https://www.atlassian.com/agile/tutorials/how-to-do-scrum-with-jira-software**](https://www.atlassian.com/agile/tutorials/how-to-do-scrum-with-jira-software)

[**https://www.atlassian.com/agile/tutorials/epics**](https://www.atlassian.com/agile/tutorials/epics)

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[**https://www.atlassian.com/agile/project-management/estimation**](https://www.atlassian.com/agile/project-management/estimation)

[**https://www.atlassian.com/agile/tutorials/burndown-charts**](https://www.atlassian.com/agile/tutorials/burndown-charts)