**Project Planning Phase**

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

|  |  |
| --- | --- |
| **Date** | 27 june 2025 |
| **Team ID** | LTVIP2025TMID59834 |
| **Project Name** | TrafficTelligence : Advanced Traffic Volume Estimation with Machine Learning |
| **Maximum Marks** | 5 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-1 | Project setup &  Infrastructure | USN-1 | Set up the development environment with the required tools and  frameworks to start the project | 20 | High | Siva Priyanka,  Lavanya |
| Sprint-2 | Data collection | USN-2 | Gather a diverse dataset of Date, time, holidays and climatic conditions. | 20 | High | Siva Priyanka,  Nithin |
| Sprint-2 | data preprocessing | USN-3 | Preprocess the collected dataset by removing outliers and null values etc. Explore and evaluate different deep learning architectures (e.g., Regressions) to select the most suitable model for the project. | 20 | High | Lavanya,  Sandeep |
| Sprint-3 | model development | USN-4 | train the selected machine learning model using the preprocessed  dataset and monitor its performance on the validation set. | 20 | High | Sandeep,  Nithin |
| Sprint-3 | Training | USN-5 | The data set will be trained with suitable algorithms to improve the robustness and accuracy. | 20 | medium | Siva Priyanka,  Sandeep |
| Sprint-4 | model deployment & Integration | USN-6 | deploy the trained machine learning model as a web service to make it accessible for users. Integrate the model's API into a user-friendly web interface for users to input variables such as date, time, holidays etc and receive predicted volume results. | 20 | medium | Nithin,  Sandeep |
| Sprint-5 | Testing & quality assurance | USN-7 | conduct thorough testing of the model and web interface to identify and report any issues or bugs. fine-tune the model hyperparameters and optimize its performance based on user feedback and testing results. | 20 | medium | Siva Priyanka,  Lavanya |

**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 | 8 june 2025 | 12 june 2025 | 20 | 12 june 2025 |
| Sprint-2 | 20 | 6 Days | 7 une 2025 | 14 june 2025 | 20 | 11 june 2025 |
| Sprint-3 | 20 | 6 Days | 15 june 2025 | 25 june 2025 | 20 | 20 june 2025 |
| Sprint-4 | 20 | 6 Days | 17 june 2025 | 22 june 2025 | 20 | 23 june 2025 |
| Sprint-5 | 20 | 6 Days | 19 june 2025 | 23 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)