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

Date	27 june 2025
Team ID	LTVIP2025TMID59882
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	1	High	Raghavendra
Sprint-2	Data collection	USN-2	Gather a diverse dataset of Date, time, holidays and climatic conditions.	2	High	Nandini
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.	3	High	Afrid
Sprint-3	model development	USN-4	train the selected machine learning model using the preprocessed dataset and monitor its performance on the validation set.	4	High	Rajak
Sprint-3	Training	USN-5	The data set will be trained with suitable algorithms to improve the robustness and accuracy.	6	medium	Raghavendra

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
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.	1	medium	Nandini
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.	1	medium	Afrid

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	1	3 Days	8 june 2025	12 june 2025	1	12 june 2025
Sprint-2	5	6 Days	7 une 2025	14 june 2025	5	11 june 2025
Sprint-3	10	6 Days	15 june 2025	25 june 2025	10	20 june 2025
Sprint-4	1	5 Days	17 june 2025	22 june 2025	1	23 june 2025
Sprint-5	1	4 Days	19 june 2025	23 june 2025	1	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)

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

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.

https://www.visual-paradigm.com/scrum/scrum-burndown-chart/

https://www.atlassian.com/agile/tutorials/burndown-charts

Reference:

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/epics

https://www.atlassian.com/agile/tutorials/sprints

https://www.atlassian.com/agile/project-management/estimation

https://www.atlassian.com/agile/tutorials/burndown-charts