Project Planning Phase

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

Date	21 June 2025
Team ID	Team ID : LTVIP2025TMID42407
Project Name	TrafficTelligence : Advanced Traffic Volume Estimation with Machine Learning
Maximum Marks	20 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
Sprint-1	Project setup & Infrastructure	USN-1	Set up the development environment with the required tools and frameworks to start the project	1	High
Sprint-2	Data collection	USN-2	Gather a diverse dataset of Date, time, holidays and climatic conditions.	2	High
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
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
Sprint-3	Training	USN-5	The data set will be trained with suitable algorithms to improve the robustness and accuracy.	6	medium
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
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

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	1 Days	19 jun 2025	19 Jun 2025	1	19 Jun 2025
Sprint-2	5	2 Days	20 jun 2025	22 Jun 2025	5	22 Jun 2025
Sprint-3	10	2 Days	22 jun 2025	23 Jun 2025	10	23 Jun 2025
Sprint-4	1	3 Days	23 Jun 2025	25 Jun 2025	1	25 Jun 2025
Sprint-5	1	1 Days	25 Jun 2025	26 Jun 2025	1	26 Jun 2025

Velocity:
Imagine we have a 29-days 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)

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

AV= 19/3.8 = 5

Burndown Chart:

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