

Project Planning Phase

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

Date	27 June 2025
Team ID	LTVIP2025TMID59344
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 all required tools, libraries, and frameworks to initiate the project smoothly.	1	High	Abdul Anees
Sprint-2	Data collection	USN-2	Gather a comprehensive dataset including date, time, holidays, and climatic conditions relevant to traffic volume prediction	2	High	Bethapudi Hema Jessy
Sprint-2	data preprocessing	USN-3	Preprocess the data by cleaning null values, removing outliers, and standardizing formats to prepare it for model training.	3	High	Amarthaluri Varshitha
Sprint-3	model development	USN-4	Explore, evaluate, and select the most suitable machine learning model architecture for the prediction task.	4	High	Annangi Harsha
Sprint-3	Training	USN-5	Train the selected model using the pre-processed dataset and monitor its performance on the validation set, applying necessary optimizations to improve accuracy.	6	medium	Amarthaluri Varshitha
Sprint-4	model deployment & Integration	USN-6	Deploy the trained model as a web API and integrate it into a user-friendly web interface that accepts inputs (date, time, holiday info) and returns traffic volume predictions.	1	medium	Annangi Harsha
Sprint-5	Testing & quality assurance	USN-7	Conduct thorough testing of the model and the web interface, address any issues or bugs, and fine-tune the model based on performance evaluations and user feedback.	1	medium	Abdul Anees

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	3(USN-1)	1 Day	18 June 2025	18 June 2025	3	18 June 2025
Sprint-2	9 (USN-2, USN-3)	2 Days	19 June 2025	20 June 2025	9	20 June 2025
Sprint-3	6 (USN-4, USN-5)	2 Days	21 June 2025	22 June 2025	6	22 June 2025
Sprint-4	1 (USN-6)	2 Days	23 June 2025	24 June 2025	1	24 June 2025
Sprint-5	1 (USN-7)	1 Day	25 June 2025	25 June 2025	1	25 June 2025

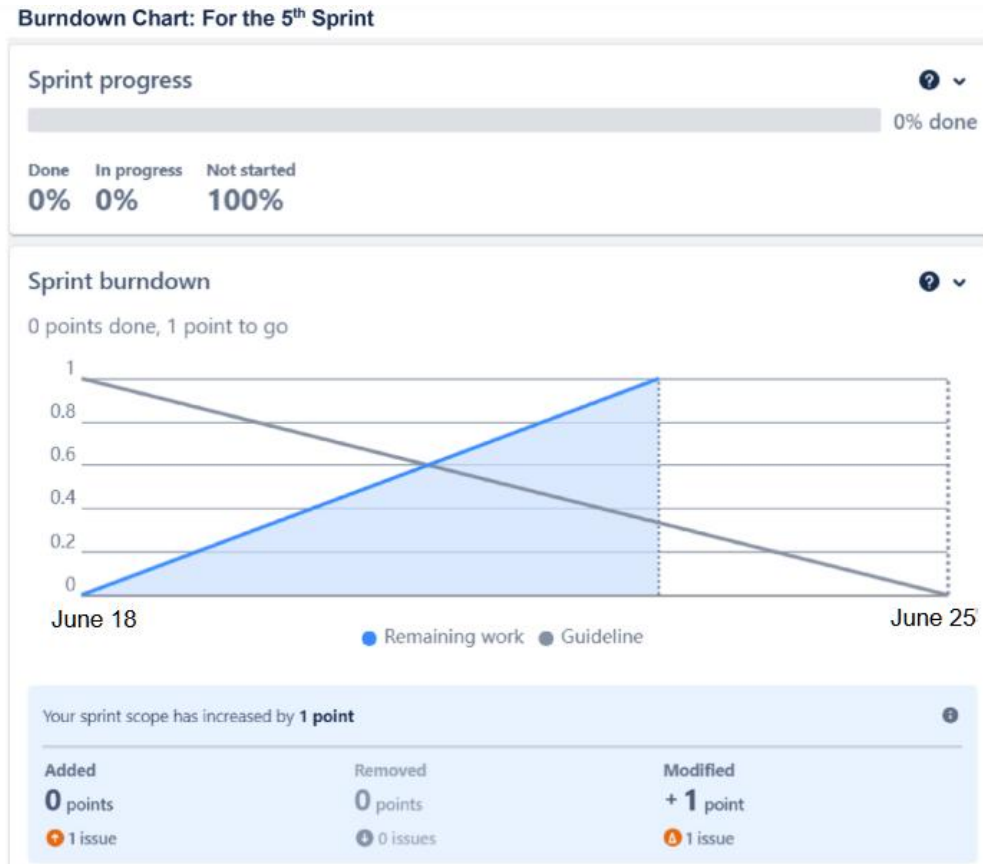
Velocity:

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)

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


$$\text{Average} = 3 + 9 + 6 + 1 + 1 = 20 / 5 = 4$$

Burndown Chart:



Projects / TrafficTelligence Advanced Traffic Volume Estimation with Machine Learning

Sprint 2

   0 days remaining 

Complete sprint



Q

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Sprint 1 ▾

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IN PROGRESS

TO DO

DONE 2 OF 3 ✓



Gather a comprehensive dataset including date, time, holidays, and climatic conditions relevant to traffic volume prediction.

DATA COLLECTION

AP-7

✓ 2

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.

DATA PREPROCESSING

AP-8

✓ 3

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Project setup & Infrastructure

Data collection

Data Preprocessing

Model Development

Training

Model deployment & Integration

Testing & quality assurance

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AP Sprint 4 19 June- 25 June (1 issue)

AP-16 Deploy the trained machine learning model as a web service to make it accessible fo... MODEL DEPLOYMENT ... TO DO

Create issue

1 issue | Estimate: 1

AP Sprint 5 19 June- 25 June (1 issue)

AP-17 Conduct thorough testing of the model and web interface to identify and report any... TESTING & QUALITY AS... TO DO

Create issue

1 issue | Estimate: 1

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