

## Project Planning Phase

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

Date	30 June,2025
Team ID	Team - LTVIP2025TMID38441
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	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	Prerna Kumari
Sprint-2	Data collection	USN-2	Gather a diverse dataset of Date, time, holidays and climatic conditions.	2	High	Faheem Muhammad
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	Faheem Muhammad
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	Sarvesh Adithya
Sprint-3	Training	USN-5	The data set will be trained with suitable algorithms to improve the robustness and accuracy.	6	medium	Rohan Verma
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	Sarvesh Adithya
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	Rohan Verma

**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	3 Nov 2023	6 Nov 2023	1	6 Nov 2023
Sprint-2	5	2 Days	6 Nov 2023	8 Nov 2023	5	8 Nov 2023
Sprint-3	10	5 Days	8 Nov 2023	13 Nov 2023	10	13 Nov 2023
Sprint-4	1	5 Days	13 Nov 2023	18 Nov 2023	1	20 Nov 2023
Sprint-5	1	4 Days	18 Nov 2023	22 Nov 2023	1	21 Nov 2023

**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)

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

$$AV = 19/3.8 = 5$$

### **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>  
<https://www.atlassian.com/agile/tutorials/sprints>  
<https://www.atlassian.com/agile/project-management/estimation>  
<https://www.atlassian.com/agile/tutorials/burndown-charts>

Burndown Chart: For the 5<sup>th</sup> Sprint

Sprint progress

0% done

Done

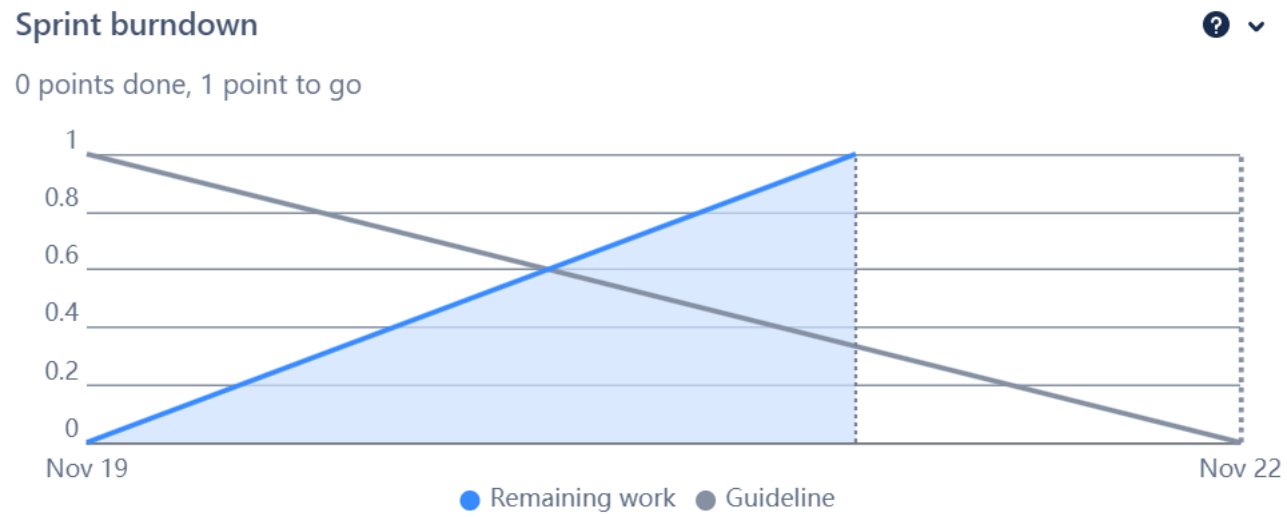
In progress

Not started

0%

0%

100%



Your sprint scope has increased by 1 point

<div>Added</div> <div>0 points</div> <div>1 issue</div>	<div>Removed</div> <div>0 points</div> <div>0 issues</div>	<div>Modified</div> <div>+ 1 point</div> <div>1 issue</div>
---------------------------------------------------------	------------------------------------------------------------	-------------------------------------------------------------

We have completed till sprint 2.


Jira Software

Your work ▾
Projects ▾
Filters ▾
Dashboards ▾
Teams ▾
Plans ▾
Apps ▾
Create






Backlog section

Jira Software

Your work

Projects

Filters

Dashboards

Teams

Plans

Apps

Create

Search

AIML Project

Software project

You're on the Free plan

UPGRADE

PLANNING

Timeline

Backlog

Board

Add view

DEVELOPMENT

Code

Project pages

Add shortcut

Project settings

Projects / AIML Project

Backlog

SJ

RV

Invite

Epic

Import work

Insights

View settings

Epic

Issues without epic

Project setup & Infrastructure

Data collection

Data Preprocessing

Model Development

Training

Model deployment & Integration

Testing & quality assurance

Create epic

AP Sprint 4 13 Nov – 18 Nov (1 issue)

100Start sprint

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 18 Nov – 22 Nov (1 issue)

100Start sprint

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


Backlog (0 issues)

000Create sprint

Your backlog is empty.

Create issue

Timeline

 **AIML Project**  
Software project

You're on the Free plan

UPGRADE

- PLANNING
- Timeline

Backlog

Board

+ Add view
- DEVELOPMENT
- Code

Project pages

Add shortcut

Project settings

Projects / AIML Project

Timeline

SJ

RV

FM

P

Status category ▾ Epic ▾

View settings

		NOV	DEC	JAN '24	FEB '24
Sprints		AP... AP... AP...			
> AP-1 Project setup & Infrastructure					
> AP-3 Data collection					
> AP-6 Data Preprocessing					
> AP-9 Model Development					
> AP-12 Training					
> AP-13 Model deployment & Integration					
> AP-14 Testing & quality assurance					
+ Create Epic					