

Project Planning Phase

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

Date	16 June 2025
Team ID	LTVIP2025TMID32454
Project Name	Clean Tech:Transforming Waste Management with Transfer learning
Maximum Marks	5 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	Dataset & Model Setup	USN-1	As a developer, I can collect and label municipal waste image datasets for model training.	5	High
Sprint-1	Dataset & Model Setup	USN-2	As a developer, I can preprocess images (resizing, augmentation, normalization) before training.	3	High
Sprint-2	Model Training	USN-3	As a developer, I can fine-tune a pre-trained model (e.g., ResNet50) using the waste dataset.	5	High
Sprint-2	Model Integration	USN-4	As a system engineer, I can deploy the trained model into a real-time image classification pipeline.	5	High
Sprint-3	System Design	USN-5	As a developer, I can design architecture for real-time image capture from cameras.	3	Medium
Sprint-3	Waste Category Mapping	USN-6	As a developer, I can define logic to classify waste into recyclable, organic, general, and hazardous categories.	2	Medium
Sprint-4	Interface & Dashboard	USN-7	As a user, I can view classification results and waste statistics on a simple dashboard.	3	Medium

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority
Sprint-4	Notification System	USN-8	As a system, I can trigger alerts or commands to sorting arms or city systems based on waste type.	4	High

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	01 June 2025	06 July 2025	13	06 July 2025
Sprint-2	20	6 Days	07 June 2025	12 July 2025	10	12 July 2025
Sprint-3	20	6 Days	14 June 2025	19 July 2025	11	19 July 2025
Sprint-4	20	6 Days	21 June 2025	26 July 2025	8	26 July 2025

Velocity:

Imagine we have a 24-day sprint duration, and the velocity of the team is 42 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

$$AV = \text{sprint duration} / \text{velocity} = 42 / 24 = 1.75$$

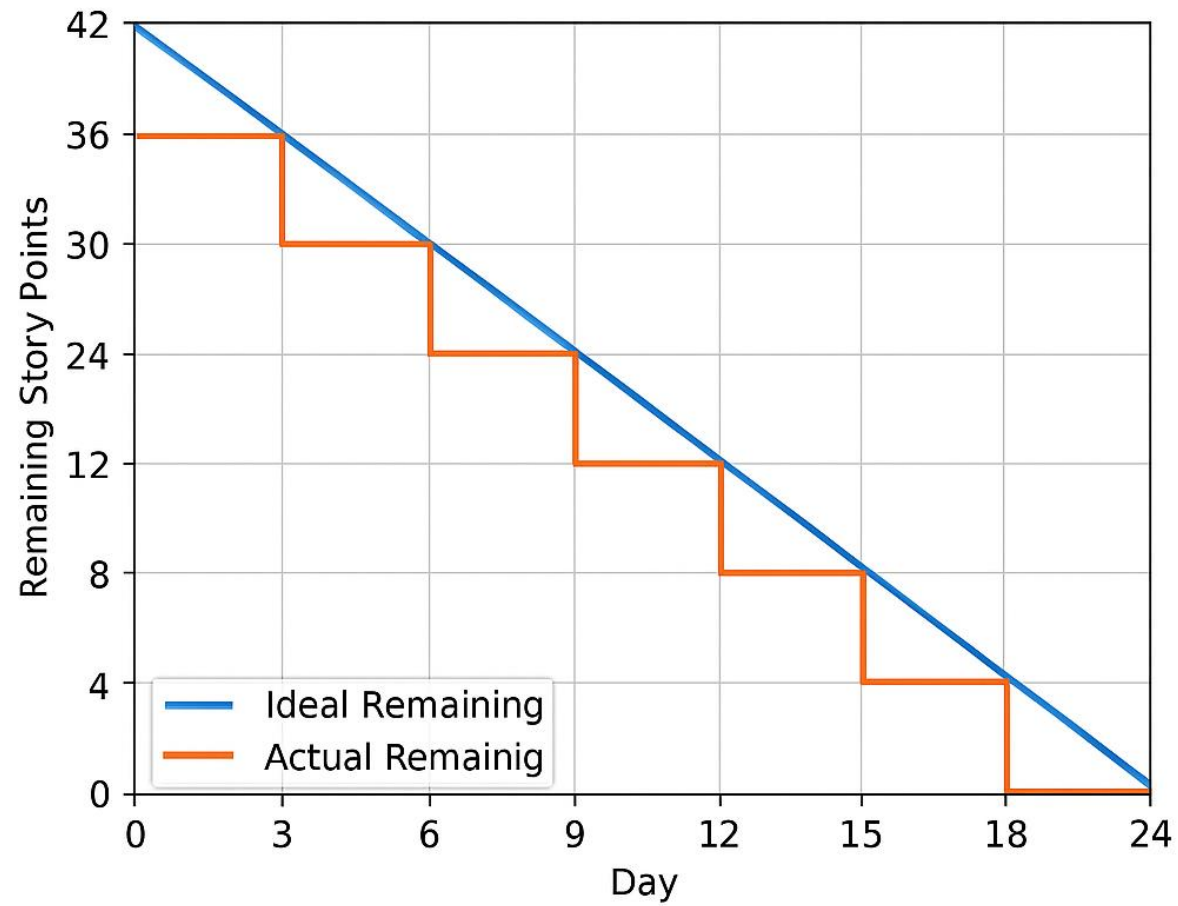
Burndown Chart:

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>

Burndown Chart



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>