

## Project Planning Phase

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

Date	15 February 2025
Team ID	LTVIP2025TMID45505
Project Name	<b>CleanTech: Transforming Waste Management with Transfer Learning</b>
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	Team Member
Sprint-1	Data Preparation	USN-1	As a developer, I want to collect and organize waste classification dataset from Kaggle.	2	High	J.Pratyusha
Sprint-1	Data Preparation	USN-2	As a developer, I want to load and explore the dataset to understand structure and labels.	1	High	G.Sai HarshaVardhan Reddy
Sprint-1	Data Preprocessing	USN-3	As a data scientist, I want to handle missing and null values effectively.	3	High	G.Sai HarshaVardhan Reddy
Sprint-1	Data Preprocessing	USN-4	As a data scientist, I want to encode categorical labels for model training.	2	Medium	J.Pratyusha
Sprint-2	Model Building	USN-5	As a developer, I want to build a waste classifier	5	High	J.Pratyusha

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Member
			using transfer learning (VGG16).			
Sprint-2	Model Testing	USN-6	As a QA, I want to evaluate the model's performance using accuracy and confusion matrix.	3	High	G.Sai HarshaVardhan Reddy
Sprint-2	Deployment	USN-7	As a web developer, I want to build HTML UI pages for image upload and prediction results.	3	Medium	G.Sai HarshaVardhan Reddy
Sprint-2	Deployment	USN-8	As a developer, I want to deploy the model using Flask and host it online.	5	High	J.PRATYUSHA

#### Project Tracker, Velocity & Burndown Chart (4 Marks)

##### Sprint Tracker

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed	Sprint Release Date (Actual)
Sprint-1	8	5 Days	10 Feb 2025	14 Feb 2025	8	14 Feb 2025
Sprint-2	16	5 Days	15 Feb 2025	19 Feb 2025	16	19 Feb 2025

## Velocity Calculation

### Formula:

Velocity = Total Story Points Completed / Number of Sprints

### Calculation:

Velocity =  $(8 + 16) / 2 = \mathbf{12 \text{ Story Points per Sprint}}$

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### Average Velocity per Day (5-day sprints)

Average Velocity per Day =  $12 / 5 = \mathbf{2.4 \text{ story points/day}}$

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## Burndown Chart

To track daily progress during a sprint, create a burndown chart:

- **X-axis:** Days (1-5)
  - **Y-axis:** Remaining story points (starts at 8 or 16, drops to 0 by Day 5)
  - Tools:
    - Excel / Google Sheets
    - [Visual Paradigm Chart Generator](#)
    - [Atlassian Burndown Guide](#)
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## References

- [Agile Project Management – Atlassian](#)
- [Scrum with Jira](#)
- [Burndown Charts – Atlassian](#)

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