Project Planning Phase

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

Date	27 June 2025
Team ID	LTVIP2025TMID36584
Project Name	cleantech: 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	Team Members
Sprint-1	Data Collection & Preprocessing	USN-1	As a developer, I want to collect and analyze the waste image dataset for proper labeling and balance.	3	High	Dev Team
Sprint-1	Model Training	USN-2	As a developer, I want to fine-tune MobileNetV2 using transfer learning for waste classification.	5	High	ML Dev
Sprint-2	Web Interface (Upload)	USN-3	As a user, I can upload an image through a simple HTML form.	2	Medium	Frontend Dev
Sprint-2	Backend Integration	USN-4	As a user, I want the backend to process the uploaded image and return a prediction.	4	High	Backend Dev
Sprint-3	Real-time Prediction	USN-5	As a user, I want the model to return predictions instantly for an image upload.	3	High	Backend+ML
Sprint-3	Result UI Rendering	USN-6	As a user, I want to see the classified category clearly along with the uploaded image.	2	Medium	Frontend Dev
Sprint-4	Testing & Debugging	USN-7	As a developer, I want to test the app across different devices and optimize performance.	3	High	QA Team
Sprint-4	Deployment	USN-8	As a user, I want to access the hosted app online (Firebase + Google Cloud Run).	4	High	Devops

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	8	4 Days	12 Jun 2025	16 Jun 2025	8	16 Jun 2025
Sprint-2	6	4 Days	16 Jun 2025	20 Jun 2025	6	20 Jun 2025
Sprint-3	5	4 Days	20 Jun 2025	24 Jun 2025	5	24 Jun 2025
Sprint-4	7	4 Days	24 Jun 2025	28 Jun 2025	7	28 Jun 2025

Velocity:
Imagine we have a 16-day sprint duration, and the velocity of the team is 26 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

AVG Velocity = 26 / 16 = 1.625(story points per day)

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

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