Project Planning Phase

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

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| Date | 21 June 2025 |
| Team ID | LTVIP2025TMID32984 |
| 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

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| **Sprint** | **Functional**  **Requirement (Epic)** | **User Story**  **Number** | **User Story / Task** | **Story Points** | **Priority** | **Team**  **Members** |
| Sprint-1 | Image data collection | USN-1 | As a user, I want to collect and label different waste item images for training the model. | 3 | High | Shiva Akshith, Nagalakshmi, Prasanna, Uday |
| Sprint-1 | Data preprocessing | USN-2 | As a developer, I want to preprocess the waste images (resize, normalization) to improve model accuracy. | 2 | High | Shiva Akshith, Nagalakshmi, Prasanna, Uday |

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| **Sprint** | **Functional Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
|  |  |  |  |  |  |  |
| Sprint-2 | Model traning | USN-3 | As a data scientist, I want to apply transfer learning on a pre-trained CNN model to classify waste types. | 5 | high | Shiva Akshith, Nagalakshmi, Prasanna, Uday |
| Sprint-2 | Model evaluation | USN-4 | As a developer, I want to evaluate the model using accuracy, confusion matrix, and classification report. | 2 | medium | Shiva Akshith, Nagalakshmi, Prasanna, Uday |
| Sprint-3 | Ui development | USN-5 | As a user, I want to upload a waste item image through a simple web or mobile app and get classification results. | 3 | medium | Shiva Akshith, Nagalakshmi, Prasanna, Uday |

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| **Sprint** | **Functional Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Story Points** | **Priority** | **Team Members** |
|  |  |  |  |  |  |  |
| Sprint -3 | Deployment | USN-6 | As a developer, I want to deploy the trained model and integrate it with the frontend for real- time use. | 4 | low | Shiva Akshith, Nagalakshmi, Prasanna, Uday |

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

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| **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 | 15 June 2025 | 20 June 2025 | 20 | 20 June 2025 |
| Sprint-2 | 20 | 6 Days | 17 June 2025 | 22 June 2025 | 20 | 22 June 2025 |
| Sprint-3 | 20 | 6 Days | 19 June 2025 | 24 June 2025 | 20 | 24 June 2025 |

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| **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-4 | 20 | 6 Days | 21 June 2025 | 26 June 2025 | 20 | 26 June 2025 |
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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)



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](https://www.visual-paradigm.com/scrum/what-is-agile-software-development/) methodologies such as [Scrum](https://www.visual-paradigm.com/scrum/scrum-in-3-minutes/). 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>