

## Project Planning Phase

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

Date	26 June 2025
Team ID	LTVIP2025TMID38828
Project Name	Smart Sorting: Transfer Learning for Identifying Rotten Fruits and Vegetables
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 & Setup	USN-1	As a team, we collect and organize fruit/vegetable image dataset from Kaggle into train and validation sets.	2	High	Mallela Suguna
Sprint-1		USN-2	As a team, we clean and label image data to ensure quality input for training.	2	High	Mallela Suguna
Sprint-1	Data Preprocessing	USN-3	As a developer, I want to handle missing data, categorical data, and apply augmentation for model training.	3	High	Mallela Suguna
Sprint-1		USN-4	As a team, we will split data into training and validation sets.	1	Medium	Mallela Suguna
Sprint-2	Model Building	USN-5	As a developer, I will use VGG16 transfer learning to build a CNN model for classification.	5	High	Durga Challa

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-2		USN-6	As a developer, I want to evaluate and tune the model for high accuracy and performance.	3	Medium	Durga Challa
Sprint-2	Web Integration (Flask)	USN-7	As a user, I can upload an image through the web app and get predictions in real time.	3	High	M M Bhavesh HRK
Sprint-2		USN-8	As a user, I will get a "Good to Eat" or "Don't Eat" message along with confidence score.	2	Medium	M M Bhavesh HRK
Sprint-2	Feedback & Testing	USN-9	As a tester, I will validate model predictions and collect user feedback.	2	Medium	Poornima D C
Sprint-2		USN-10	As a user, I can submit feedback through a form after viewing the result.	1	Low	Poornima D C

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

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed	Sprint Release Date (Actual)
Sprint-1	12	9 Days	09 Jun 2025	17 Jun 2025	12	17 Jun 2025
Sprint-2	12	8 Days	18 Jun 2025	25 Jun 2025	12	25 Jun 2025

#### Velocity:

The below velocity Calculation is bases on the 2 Sprints

- Total Story Points = 12 + 12 = 24

Velocity =  $24 / 12 = 12$  Story Points per Sprint

## 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, burndown charts can be applied to any project containing measurable progress over time.

