**Project Planning Phase**

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

| Date | 25 June 2025 |
| --- | --- |
| Team ID | LTVIP2025TMID32541 |
| 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-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



**Burndown Chart**

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

