**Project Planning Phase**

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

|  |  |
| --- | --- |
| Date | 27 June 2025 |
| Team ID | LTVIP2025TMID48418 |
| Project Name | A College Food Choices Case Study |
| 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 | USN-1 | As a data engineer, I can collect pollen image data for model training. | 2 | High |  |
| Sprint-1 | Data Loading | USN-2 | As a developer, I can load and visualize the dataset in the pipeline. | 1 | Medium |  |
| Sprint-1 | Data Preprocessing | USN-3 | As a developer, I can handle missing values and clean the data. | 3 | High |  |
| Sprint-1 | Data Preprocessing | USN-4 | As a developer, I can encode and manage categorical variables. | 2 | High |  |
| Sprint-2 | Model Building | USN-5 | As an ML engineer, I can build and train the classification model | 5 | High |  |
| Sprint-2 | Model Evaluation | USN-6 | As an ML engineer, I can test and validate the performance of the model | 3 | High |  |
| Sprint-2 | UI Development | USN-7 | As a front-end developer, I can design working HTML pages for deployment | 3 | Medium |  |
| Sprint-2 | Deployment | USN-8 | As a back-end developer, I can deploy the trained model using React. | 5 | High |  |

**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 | 5 Days | 17 June 2025 | 21 June 2025 | 8 | 21 June 2025 |
| Sprint-2 | 16 | 5 Days | 22 June 2025 | 27 June 2025 | 16 | 27 June 2025 |

**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)

**Total Story Points =** 8 (Sprint 1) + 16 (Sprint 2) = **24**  
**Number of Sprints =** 2  
**Velocity =** 24 / 2 = **12 Story Points per Sprint**



**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.

A burndown chart will show:

* **Start of Sprint 1**: 8 story points
* **End of Sprint 1**: 0 (all completed)
* **Start of Sprint 2**: 16 story points
* **End of Sprint 2**: 0 (all completed)