Project Planning Phase

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

Date	28th June 2025
Team ID	LTVIP2025TMID34819
Project Name	GrainPalette A Deep Learning Odyssey In Rice Type Classification Through Transfer Learning
Maximum Marks	5 Marks

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Sprint	Functional Requirement (Epic)	User Story Number	User Story/Task (Smaller Stories - Tasks)	Story Points (Estimated)	Priority	Team Members	Category (Aligned to Planning Logic)
Sprint 1	Sprint 1: Data Collection & Preprocessing (5 Days)	USN-Data-1	Data Collection: Gather initial rice grain image dataset for training & testing.	2	High	Saket Kumar, Shaik Thasmiya	Data Collection
Sprint 1	Sprint 1: Data Collection & Preprocessing (5 Days)	USN-Data-2	Loading Data: Implement code to load image data efficiently into the development environment.	1	High	Saket Kumar, Shaik Kalesha	Data Collection
Sprint 1	Sprint 1: Data Collection & Preprocessing (5 Days)	USN-Prep-1	Handling Missing Values: Implement data cleaning to handle any missing or corrupted image data.	3	High	Saket Kumar, Shaik Asfiya Anjum, Shaik Kalesha	Data Preprocessing
Sprint 1	Sprint 1: Data Collection & Preprocessing (5 Days)	USN-Prep-2	Handling Categorical Values: Prepare rice type labels for model training	2	High	Saket Kumar, Shaik Thasmiya	Data Preprocessing

			(encoding categorical data).				
Sprint 1	Sprint 1: Data Collection & Preprocessing (5 Days)	USN-Core-1	Basic Image Upload & Display (UI): Implement basic UI for users to upload a rice grain image.	2	High	Shaik Kalesha, Saket Kumar, Shaik Thasmiya	UI - Core Functionality
Sprint 1	Sprint 1: Data Collection & Preprocessing (5 Days)	USN-Core-2	Basic "Submit" Button & Loading Indicator (UI): Add button to trigger processing & basic loading feedback.	1	High	Saket Kumar	UI - Core Functionality
Sprint 2	Sprint 2: Model Building & Deployment (5 Days)	USN-Model- 1	Model Building: Train the MobileNetv4 Transfer Learning model for rice type classification.	5	High	Saket Kumar, Shaik Kalesha, Shaik Asfiya Anjum	Model Building
Sprint 2	Sprint 2: Model Building & Deployment (5 Days)	USN-Model- 2	Testing Model: Evaluate the trained model's performance on a test dataset; refine if needed.	3	High	Saket Kumar, Shaik Thasmiya	Testing Model
Sprint 2	Sprint 2: Model Building & Deployment (5 Days)	USN-Deploy- 1	Working HTML Pages (Basic Result Display): Create basic HTML pages to display rice type prediction results.	3	High	Saket Kumar, Shaik Thasmiya, Shaik Kaleshal	Deployment

Sprint 2	Sprint 2: Model Building & Deployment (5 Days)	USN-Deploy- 2	Flask Deployment (Basic): Deploy a basic Flask application to serve the AI model and UI (locally for testing).	5	High	Saket Kumar, Shaik Thasmiya,	Deployment

Sprint 2	Sprint 2: Model Building & Deployment (5 Days)	USN-Core-3	Basic Result Display (UI): Implement basic UI to show predicted rice type and confidence level.	2	High	Kunal Goel, Ayush Mishra	UI - Core Functionality

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

Sprint	Total Story Points (Planned)	Duration	Sprint Start Date	Sprint End Date	Story Points Completed (Actual) (as on Planned End Date)	Release Date
Sprint 1	11	6 Days	16 June 2025	22 June 2025	11	28 June 2025
Sprint 2	18	5 Days	23 June 2025	28 June 2025	18	

Velocity:

Imagine we have a 11-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)

$$AV = \frac{11+18}{2} = \frac{29}{2} = 14.5$$

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