5.PROJECT PLANNING & SCHEDULING

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

5.1 Project Planning

| Date | 30 june 2025 |
|---------------|---|
| Team ID | LTVIP2025TMID38419 |
| Project Name | GrainPalette – A Deep Learning Odyssey in Rice Type Classification Through Transfer Learning |
| Maximum Marks | 5 Marks |

Product Backlog & Sprint Schedule (4 Marks)

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|----------|-------------------------------------|-------------------------|---|-----------------|----------|---------------------|
| Sprint-1 | Data Collection | USN-1 | As a developer, I can collect rice image data from Kaggle to train the model. | 2 | High | Narendra Mukhesh |
| Sprint-1 | Data Preprocessing | USN-2 | As a developer, I can clean, resize, and augment the rice images to prepare for model training. | 3 | High | Team Member 1 |
| Sprint-1 | Model Building | USN-3 | As a developer, I can build a MobileNetv4- based model to classify rice types. | 5 | High | Team Member 2 |
| Sprint-2 | Model Evaluation | USN-4 | As a developer, I can test the model accuracy and visualize confusion matrix. | 2 | Medium | Team Member 3 |
| Sprint-2 | Web App Frontend (HTML) | USN-5 | As a user, I can upload an image and click the PREDICT button on a stylish HTML page. | 3 | High | Narendra Mukhesh |
| Sprint-2 | Flask Backend Integration | USN-6 | As a user, I can get the predicted rice class from | 3 | High | Team Member 1 |

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points | Priority | Team Members |
|----------|-------------------------------------|-------------------------|--|-----------------|----------|---------------------|
| | | | a trained model using Flask. | | | |
| Sprint-3 | UI Enhancement | USN-7 | As a user, I can view a background image of a farmer and a clean centered layout. | 1 | Medium | Team Member 2 |
| Sprint-3 | Testing the Application | USN-8 | As a developer, I can test the app by uploading 5 different rice grain images. | 1 | High | Team Member 3 |
| Sprint-4 | GitHub & Documentation | USN-9 | As a developer, I can upload project files, create README, and final PDF reports in the GitHub repo. | 2 | High | Narendra Mukhesh |

ii 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 |
|--------------|-----------------------|----------|----------------------|---------------------------|---------------------------|---------------------------|
| Sprint- | 10 | 5 Days | 01 jun 2025 | 05 jun 2025 | 10 | 05 jun 2025 |
| Sprint- 2 | 8 | 5 Days | 06 jun 2025 | 10 jun 2025 | 8 | 10 jun 2025 |
| Sprint- 3 | 2 | 2 Days | 11 jun 2025 | 12 jun 2025 | 2 | 12 jun 2025 |
| Sprint- 4 | 2 | 2 Days | 13 jun 2025 | 14 jun 2025 | 2 | 14 jun 2025 |
| | | | | | | |

Velocity Calculation

• Total Story Points Completed: 10 + 8 + 2 + 2 = 22

• Total Number of Sprints: 4

• Average Velocity = 22 / 4 = 5.5 Story Points per Sprint

Burndown Chart (Create in Excel or Chart Tool)

- 1. Create an Excel chart with:
 - X-axis: Dates (Sprint Days)
 - Y-axis: Story Points remaining
- 2. Plot an ideal burndown line (linear decrease)
- 3. Plot an actual burndown line based on story points completed each day.

Use this reference:

Visual Paradigm Burndown Chart Guide

References:

- https://www.atlassian.com/agile/tutorials/sprints
- https://www.atlassian.com/agile/project-management/estimation
- https://www.visual-paradigm.com/scrum/scrum-burndown-chart/