Project Planning Phase
Project Planning Template (

Date	30/06/2025
Team ID	LTVIP2025TMID38653
Project Name	grainpalette
Maximum Marks	4

1 Project Overview

GrainPalette aims to automate the classification of different rice grain types using image-based deep learning techniques. The project is targeted at agricultural stakeholders including farmers, grain suppliers, and researchers to assist with fast and accurate rice grain identification.

Objectives
To build a deep learning model (preferably using transfer learning) to classify rice grain types.

To deploy the model via a simple, user-friendly web interface.

To achieve accuracy above 90% on the test dataset.

Project Timeline

Phase	Task	Timeline
Phase 1	Research and Dataset Collection	Week 1
Phase 2	Data Preprocessing & Augmentation	Week 2
Phase 3	Model Selection & Training (Transfer Learning)	Week 3
Phase 4	Model Evaluation & Fine-Tuning	Week 4
Phase 5	Web App Development & Deployment	Week 5
Phase 6	Testing, Report Writing & Submission	Week 6

Languages: Python, HTML, CSS, JavaScript

Libraries: TensorFlow/Keras, OpenCV, NumPy, Pandas

Tools: Jupyter, Google Colab, VS Code

Frameworks: Flask or Streamlit

Deployment: Streamlit Cloud or Heroku

Flowchart

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Create Project Plan

Project Planning

Plan | Charter | Scope | Resource | Budget | Schedule

Approval

Adjust or Cancel

Share Project Plan