

Project Design Phase

Proposed Solution Template

Team ID: LTVIP2025TMID40690

Project Name: Grainpalatte – Rice Type Classification

Maximum Marks: 2 Marks

Proposed Solution Template Filled:

S.No.	Parameter	Description
1	Problem Statement (Problem to be solved)	Farmers and rice vendors face challenges in accurately identifying rice varieties, leading to poor quality control, price mismatch, and fraud.
2	Idea / Solution description	Our solution is a machine learning model trained on rice grain features or images to automatically classify rice types (e.g., Basmati, Sona Masuri, etc.) with high accuracy. It will be deployed via a user-friendly app or web portal.
3	Novelty / Uniqueness	Unlike manual identification, our system is faster, cost-effective, and scalable. It uses image classification and feature-based models for better precision.
4	Social Impact / Customer Satisfaction	The solution empowers farmers, traders, and consumers with accurate rice identification. It increases transparency, builds trust, and improves income for farmers.
5	Business Model (Revenue Model)	Freemium model: Free for small-scale farmers, paid plans for traders and agri-businesses. Ads and premium insights can be monetized.

6	Scalability of the Solution	The model can be extended to other crops and food grains. It supports multiple languages and can be deployed on cloud/mobile for broader access.
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