Ideation Phase
Brainstorm & Idea Prioritization Template

Date	30 June 2025
Team ID	LTVIP2025TMID40189
Project Name	GrainPalette - A Deep Learning Odyssey In Rice Type Classification Through Transfer Learning
Maximum Marks	4 Marks

Brainstorm & Idea Prioritization Template:

As part of the GrainPalette development, several innovative ideas were brainstormed to enhance usability, scalability, and impact. Key ideas included building a mobile app version to increase accessibility, especially for rural users, and adding multilingual support (e.g., Hindi, Telugu) to reach a wider audience. Features like confidence scores with visual explanations (using Grad-CAM) were suggested to build user trust, while offline capability was proposed for areas with poor internet connectivity. Other creative concepts such as rice disease detection, voice-assisted interaction, and government integration were considered, though marked for long-term exploration due to lower feasibility or external dependencies.

After prioritization based on impact and feasibility, the top ideas selected for immediate implementation were the mobile app, multilingual user interface, explainable AI features, and offline mode support. These were deemed highly impactful and reasonably feasible within the current scope. Additional ideas like building a rice variety guide and collecting user-generated data were marked for future phases. This structured brainstorming approach ensures that GrainPalette evolves effectively to meet user needs while staying focused on practical deliverables.

Reference: https://www.mural.co/templates/brainstorm-and-idea-prioritization

Step-1: Team Gathering, Collaboration and Select the Problem Statement

Brainstorm
& idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

- 🕐 **10 minutes** to prepare
- ⏳ **1 hour** to collaborate
- 👤 **2-8 people** recommended

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

🕐 **10 minutes**

A **Team gathering**
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B **Set the goal**
Think about the problem you'll be focusing on solving in the brainstorming session.

C **Learn how to use the facilitation tools**
Use the Facilitation Superpowers to run a happy and productive session.

Open article →

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1 Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

🕐 **5 minutes**

How might we automate and improve the accuracy of rice grain type classification using deep learning and transfer learning techniques?

Key rules of brainstorming
To run a smooth and productive session

- Stay in topic.
- Defer judgment.
- Go for volume.
- Encourage wild ideas.
- Listen to others.
- If possible, be visual.

Step-2: Brainstorm, Idea Listing and Grouping

2

Brainstorm

Write down any ideas that come to mind
that address your problem statement.

🕐 **10 minutes**

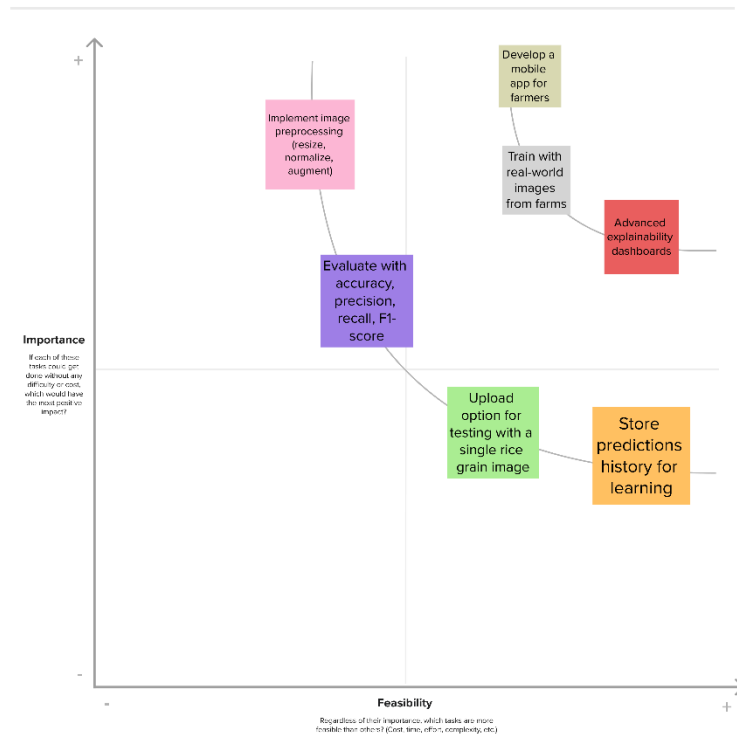| Sairam	hemachand	kamal santhosh	nabi rasool
Use a pre-trained model like ResNet50 or MobileNet for classification.	Train a model to detect shape, texture, and color features of rice grains.	Develop a GUI/ web interface for farmers to upload and classify rice.	Build a small hardware prototype using Raspberry Pi + camera.
Apply data augmentation to increase dataset diversity.	Use Grad-CAM to visualize why the model classifies a grain a certain way.	Integrate the model into a quality control system for rice packaging.	Include a feedback loop where users can correct misclassified results.
Build a mobile app to classify rice grains using the phone camera.	Collect additional real-world rice grain photos from local stores or farms.	Compare different transfer learning models for best performance.	Use explainable AI methods to gain trust in classification decisions.

Step-3: Idea Prioritization

4

Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

🕐 20 minutes

Importance

If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?

Develop a mobile app for farmers

Implement image preprocessing (resize, normalize, augment)

Train with real-world images from farms

Advanced explainability dashboards

Evaluate with accuracy, precision, recall, F1-score

Upload option for testing with a single rice grain image

Store predictions history for learning

Feasibility

Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)

After you collaborate

You can export the mural as an image or pdf to share with members of your company who might find it helpful.

Quick add-ons

Share the mural
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.

Export the mural
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.

Keep moving forward

Strategy blueprint
Define the components of a new idea or strategy.
Open the template →

Customer experience journey map
Understand customer needs, motivations, and obstacles for an experience.
Open the template →

Strengths, weaknesses, opportunities & threats
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.
Open the template →