Ideation Phase
Empathize & Discover

Date	27 June 2025
Team ID	LTVIP2025TMID41438
Project Name	GrainPalette – A Deep Learning Odyssey in Rice Type Classification Through Transfer Learning
Maximum Marks	4 Marks

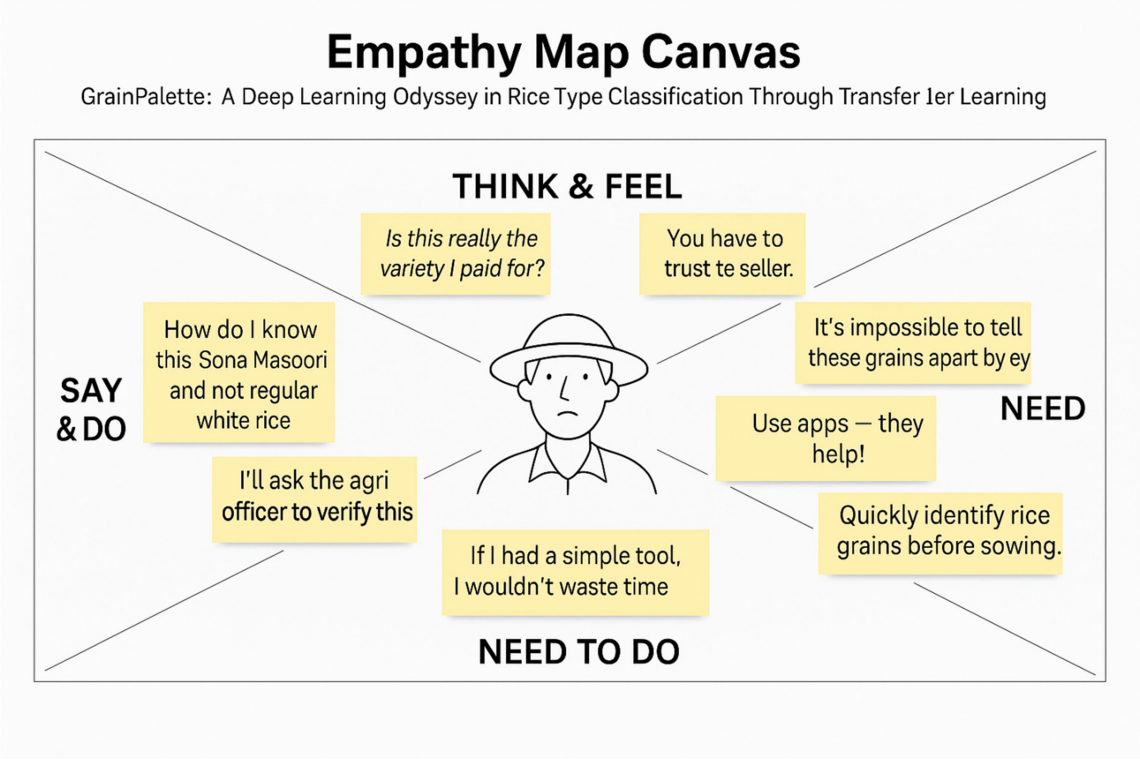
Empathy Map Canvas:

An empathy map is a simple, visual tool that helps us understand the thoughts, feelings, behaviors, and needs of farmers, agricultural researchers, and home growers when it comes to identifying rice varieties.

For our deep learning–based rice classification system, this map helps us build deep empathy with users—farmers who rely on correct grain identification for crop planning, researchers conducting variety trials, and home growers who seek to learn and grow rice effectively.

By exploring their pain points, motivations, and interactions with existing seed selection practices, we ensure that our solution is not only technically accurate, but also practical, trustworthy, and accessible across diverse user groups.

Example: Rice Type Identification Tool – GrainPalette



This empathy map captures the lived experiences, challenges, and expectations of farmers who work with different rice seeds, agriculture scientists validating varieties, and hobbyists exploring rice diversity. It is designed to inform the development of a machine learning–powered classifier that helps users identify rice types quickly and accurately from images.

Through this map, we gain a deeper understanding of the practical difficulties—such as seed mislabeling, visual similarity between grains, and lack of expert access—as well as the users' desire for simple, fast, and informative tools.

By documenting:

- **What users think and feel**
  ("Is this really the variety I paid for?" "How do I know this is Sona Masoori and not regular white rice?")
- **What they hear**
  ("You have to trust the seller." "It's impossible to tell these grains apart by eye." "Use apps—they help!")
- **What they say and do**
  ("I'll ask the agri officer to verify this." "Let me try something digital this time." "If I had a simple tool, I wouldn't waste time guessing.")
- **What they need to do**
  (Quickly identify rice grains before sowing. Access type-based advice. Use AI tools easily even with limited tech skills.)

This exercise ensures that the AI model we build is not only accurate in classifying rice varieties, but also useful, approachable, and empowering—supporting farmers in crop decision-making, aiding researchers in data accuracy, and encouraging learning for home growers.
