Ideation Phase

Empathize & Discover

Date: 31 January 2025

Team ID: LTVIP2025TMID32946

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, easy-to-digest visual that captures knowledge about a user's behaviours and attitudes. It is a useful tool to helps teams better understand their users. Creating an effective solution requires understanding the true problem and the person who is experiencing it.

Target User: Agricultural Stakeholders (Farmers, Researchers, Exporters, Traders)

🤔 THINKS & BELIEVES

- Rice variety identification is crucial for pricing and quality assessment
- Manual identification methods are time-consuming and prone to human error
- Technology can revolutionize agricultural practices
- Accurate classification leads to better market positioning
- Quick identification saves valuable time in grain trading
- Digital solutions should be accessible and user-friendly

👀 SEES

- Various rice grains with subtle visual differences
- Traditional manual sorting processes in markets
- Inconsistent pricing due to misidentification
- Competitors using similar grains for different prices
- Technology adoption in other agricultural sectors
- Mobile devices and internet connectivity becoming common

💬 SAYS & DOES

- "I need to identify this rice variety quickly"
- "Manual sorting takes too much time"
- "I want to ensure I'm getting the right price for my grain"

- Uploads rice grain images for classification
- Compares results with traditional methods
- Shares tool with colleagues and peers
- Tests multiple grain samples

👂 HEARS

- Fellow farmers discussing grain quality issues
- Market trends about specific rice varieties
- Success stories of technology adoption in agriculture
- Concerns about accuracy of automated systems
- Recommendations from agricultural extension officers
- Discussions about export quality standards

😰 PAINS

- **Time-consuming manual identification** process
- **Inconsistent results** from different experts
- **Limited access** to rice classification experts
- **High costs** of professional grain analysis
- **Difficulty in distinguishing** similar-looking varieties
- **Market disadvantage** due to misclassification
- **Lack of standardization** in identification methods

😊 GAINS

- **Quick and accurate** rice type identification
- **Cost-effective** alternative to expert consultation
- **Consistent results** across multiple uses
- **Improved market positioning** through accurate classification
- **Time savings** in grain sorting processes
- **Better decision-making** for trading and pricing
- **Increased confidence** in grain quality assessment
- **Enhanced productivity** in agricultural operations

🎯 USER JOURNEY

1. **Awareness:** Learns about digital rice classification tool

2. **Interest:** Explores GrainPalette application features
3. **Trial:** Uploads first rice grain image for testing
4. **Evaluation:** Compares results with known varieties
5. **Adoption:** Integrates tool into regular workflow
6. **Advocacy:** Recommends to other agricultural stakeholders

📱 INTERACTION PREFERENCES

- Simple, intuitive web interface
- Mobile-responsive design for field use
- Clear visual feedback and results
- Minimal technical requirements
- Offline capability when possible
- Multi-language support for broader accessibility