

# Ideation Phase

## Brainstorm & Idea Prioritization Template


Date	27 June 2025
Team ID	LTVIP2025TMID34246
Project Name	Transfer Learning-Based Classification of Poultry Diseases for Enhanced Health Management.
Maximum Marks	4 Marks

### Brainstorm & Idea Prioritization Template:

Poultry farmers face significant challenges in detecting diseases at an early stage, often resulting in high bird mortality and economic losses. Traditional diagnostic methods are costly, time-consuming, and typically unavailable in rural areas. To address this gap, our team leveraged AI-powered computer vision to automate and accelerate poultry disease detection.

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

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



## Brainstorm & idea prioritization

Poultry farmers face significant challenges in detecting diseases early, leading to high mortality and economic loss. Traditional diagnosis methods are expensive, time-consuming, and often inaccessible in rural areas.

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

**Before you collaborate**

Before starting the project, we conducted a structured brainstorming session to explore innovative and practical solutions for early poultry disease detection. The session aimed to encourage creativity, collaboration, and problem-solving by leveraging the diverse skills of our team.

**Team gathering**

- Team included:
  - An AI/ML developer to handle model training and prediction logic
  - A web developer for UI and backend integration
  - A domain expert familiar with poultry farming challenges
  - A project leader to facilitate the session and coordinate tasks

**Set the goal:**

To brainstorm and prioritize ideas that will help us design a simple, effective, and accessible AI-based system to detect poultry diseases early and support rural farmers.

**Learn how to use the facilitation tools**

We used MURAL to collaboratively collect, group, and prioritize ideas using digital sticky notes. The latest helped visualize categories like AI, UI, deployment, and farmer support, and made remote teamwork easy.

[Open article](#)

**Define your problem statement**

How might we help poultry farmers detect diseases early using affordable, AI-powered tools that work even in rural and low-resource environments?

**5 minutes**

**PROBLEM**

How might we help poultry farmers detect diseases early using affordable, AI-powered tools that work even in rural and low-resource environments?

**Key rules of brainstorming**

To ensure smooth and productive session

- Stay in topic
- Deferring judgment
- Go for volume
- Encourage wild ideas
- Listen to others
- If possible, go ahead

## Step-2: Brainstorm, Idea Listing and Grouping

### 3 Brainstorm

- ResNet50 with transfer learning
- Web UI for image upload
- Mobile and multilingual support
- Flask backend with cloud deployment
- Offline mode with TF Lite
- SMS alerts and voice input (future)

10 minutes

Person 1

Person 2

Person 3

Person 4

Person 5

Person 6

Person 7

Person 8

### 4 Group ideas

We grouped our idea into four main areas: using ResNet50 with transfer learning for disease detection; building a simple, mobile-friendly and multilingual web interface; deploying the backend with Flask and cloud support; and adding features like SMS alerts, vet support, and prediction history for better farmer communication.

20 minutes

#### TIP

Use category tags like "Model", "UI", "Deployment", and "Support" to quickly cluster sticky notes and identify core themes.

#### TIP

While grouping ideas, use tags like **Model**, **UI**, **Deployment**, and **Farmer Support** to easily track which ideas focus on AI logic, user experience, technical setup, or real-world usability for farmers.

## Step-3: Idea Prioritization

### 5 Prioritize

- **Use ResNet50 model** → High impact, highly feasible
- **Web UI for image upload** → Easy to build, critical for usability
- **Flask backend integration** → Technically simple and essential
- **Mobile & multilingual support** → Very impactful but moderately complex

20 minutes

#### TIP

Use the prioritization grid to identify which ideas offer the highest impact with the least effort. Focus first on ideas that are both **highly important** and **feasible**, like using a pre-trained model or creating a simple web interface.

#### Importance

Ideas that directly improve early detection and help farmers (e.g., ResNet50 model, web UI).

#### Feasibility

Ideas that are easier to build with available tools (e.g., Flask backend, cloud deployment).