Ideation Phase
Brainstorm & Idea Prioritization Template

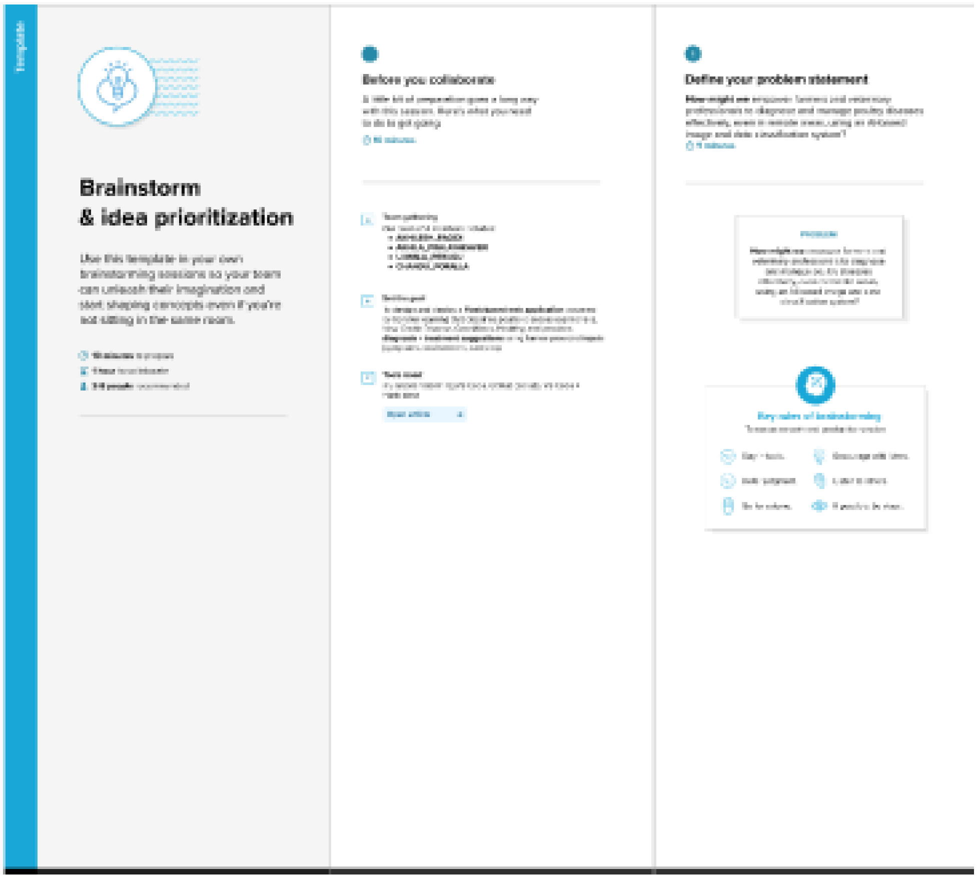
Date	21 June 2025
Team ID	LTVIP2025TMID44008
Project Name	Transfer Learning-based Classification of Poultry Diseases for Enhanced Health Management
Maximum Marks	4 Marks

Brainstorm & Idea Prioritization Template:

Discussion Summary:
Our team discussed critical issues in poultry health and identified the need for a reliable, automated system for disease classification using images. Manual diagnosis is often error-prone and inaccessible to small-scale farmers.

Selected Problem Statement:
“To develop a transfer learning-based image classification system that identifies common poultry diseases accurately to assist in early diagnosis and health management.”

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



Template

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

Team gathering

- AKHILESH_PAGIDI
- AKHILA_PRALAYAKAVERI
- UJWALA_PERUGU
- CHANDU_PORALLA

Set the goal

[illegible]

Learn how to use the facilitation tools

[illegible]

Open article

Define your problem statement

How might we empower farmers and veterinary professionals to diagnose and manage poultry diseases effectively, even in remote areas, using an AI-based image and data classification system?

5 minutes

PROBLEM

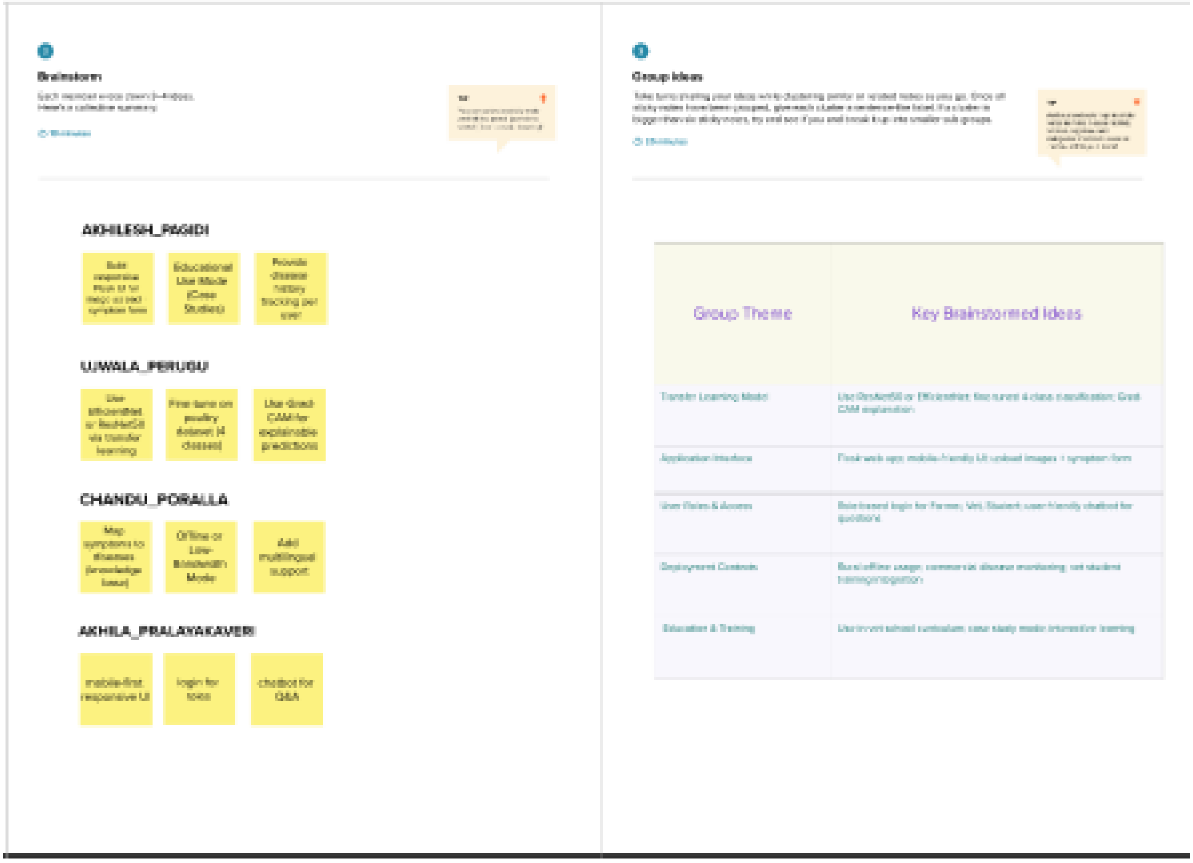
How might we empower farmers and veterinary professionals to diagnose and manage poultry diseases effectively, even in remote areas, using an AI-based image and data classification system?

Key rules of brainstorming

To run an 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



Brainstorm

Each member wrote down 3–4 ideas. Here's a collective summary.

10 minutes

AKHILESH_PAGIDI

- Build responsive Flask UI for image upload and symptom form
- Educational Use Mode (Case Studies)
- Provide disease history tracking per user

UJWALA_PERUGU

- Use EfficientNet or ResNet50 via transfer learning
- Fine-tune on poultry dataset (4 classes)
- Use Grad-CAM for explainable predictions

CHANDU_PORALLA

- Map symptoms to diseases (knowledge base)
- Offline or Low-Bandwidth Mode
- Add multilingual support

AKHILA_PRALAYAKAVERI

- mobile-first responsive UI
- login for roles
- chatbot for Q&A

Group ideas

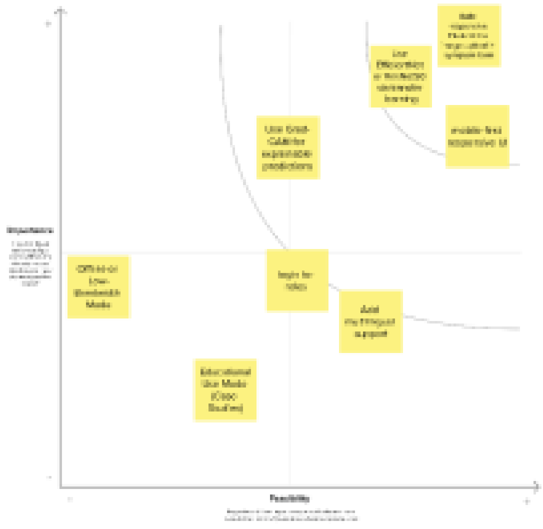
Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

20 minutes

Group Theme	Key Brainstormed Ideas
Transfer Learning Model	Use ResNet50 or EfficientNet; fine-tuned 4-class classification; Grad-CAM explanation
Application Interface	Flask web app; mobile-friendly UI; upload images + symptom form
User Roles & Access	Role-based login for Farmer, Vet, Student; user-friendly chatbot for questions
Deployment Contexts	Rural offline usage; commercial disease monitoring; vet student training/integration
Education & Training	Use in vet school curriculum; case study mode; interactive learning

Step-3: Idea Prioritization

Prioritize



Importance
Feasibility
Use EfficientNet or ResNet50 transfer learning
mobile-first responsive UI
Use Grad-CAM for explainable predictions
Offline or Low-Bandwidth Mode
login for roles
Add multilingual support
Educational Use Mode (Case Studies)

After you collaborate