

Ideation Phase

Brainstorm & Idea Prioritization Template

Date	27 June 2025
Team ID	LTVIP2025TMID41035
Project Name	Transfer Learning-Based Classification of Poultry Diseases for Enhanced Health Management
Maximum Marks	4 Marks

Brainstorm & Idea Prioritization Template:

The Brainstorm & Idea Prioritization Template is a collaborative tool used to generate and organize ideas around a specific problem or challenge. It encourages team members to think creatively, share openly, and then group and evaluate those ideas based on relevance and impact.

In our project, the template was used to explore innovative ideas for building an AI-based system using transfer learning to detect poultry diseases from images. Each team member contributed unique suggestions—ranging from model improvement strategies (like using VGG16 and ResNet50), data collection methods (real poultry images), and features for ease of use by farmers (voice support, local language, simple UI). These ideas were then grouped into categories such as Model Accuracy, Dataset Quality, Deployment, and Farmer Usability, and discussed as a team to select the most effective and realistic solutions.

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

Template

Brainstorm & idea prioritization

Use this framework to launch the "Poultry Disease Prediction" project. This session will align the team on the core objectives, technical approach, and expected impact on early disease prediction.

🕒 15 minutes to prepare

🕒 1 hour to collaborate

👤 2-4 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

Identify the team members involved in this poultry disease prediction project. Assign roles such as data analyst, ML developer, Deployment & Integration Developer, UI/UX Designer. Share relevant datasets, previous models (if any).

B Set the goal

To develop an AI-based system using transfer learning that can accurately detect poultry diseases from images. The goal is to help farm owners identify diseases early, reduce bird mortality, and minimize reliance on veterinarians through a simple web application.

C Learn how to use the facilitation tools

- **Google Colab** – For training and testing the deep learning model using VGG16, VGG19, or ResNet50.
- **Flask** – To deploy the trained model as a web application.
- **Canva / Figma** – To design a simple and user-friendly interface for image upload and disease prediction.
- **PowerPoint / Google Slides** – For preparing project presentations.
- **Google Docs / Word** – For writing reports and documentation.

1

Define your problem statement

What challenge are we addressing? Frame your problem as a **How Might We** statement. This will serve as the core of your brainstorming session.

🕒 5 minutes

PROBLEM

How might we help farmers detect poultry diseases early using image-based AI tools?

Key rules of brainstorming

To run a smooth and productive session

Stay in topic.

Encourage wild ideas.

Defer judgment.

Listen to others.

Go for volume.

If possible, be visual.

Step-2: Brainstorm, Idea Listing and Grouping

2 Brainstorm

How might we use AI to predict poultry disease early and accurately?

10 minutes

TIP
You can select a sticky note and in the pinch (switch to switch) icon to start drawing!

3 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

TIP
Add a collaborative tag to sticky notes to make it easier to find, remove, organize, and compare important ideas as team members move around.

Person 1

Use pre-trained models like VGG16 or ResNet50 to classify poultry diseases from images

Person 2

Collect and train data from local poultry farms for better accuracy

Person 3

Use data augmentation to improve model learning on fewer samples

Person 4

Build a simple mobile app for farmers to take pictures and get disease predictions

Grouped Idea Categories

Model Accuracy – Use transfer learning models like VGG16 or ResNet50 – Apply data augmentation and fine-tuning to improve accuracy

Dataset Quality – Collect real poultry images from farms – Ensure proper labeling and balanced distribution across diseases

User-Friendly Features – Include voice support and local language options – Provide simple image upload and clear prediction output

Deployment & Access – Develop a web app using Flask – Ensure it's mobile-friendly and supports offline access (optional)

Smart Monitoring – Use live camera input for real-time detection – Send alerts when unusual symptoms are identified

Awareness & Impact – Display health tips and prevention advice – Allow farmers to view history and track predictions

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

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.

lets move forward :)

Keep moving forward

- Strategy blueprint**
the blue print helps to backup
- Customer experience journey map**
understanding customer for better result
- Strengths, weaknesses, opportunities & threats**
Identifying strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.

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

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