

## Ideation Phase

### Brainstorm & Idea Prioritization Template

Date	28 June 2025
Team ID	LTVIP2025TMID41715
Project Name	Transfer Learning-Based Classification of Poultry Diseases for Enhanced Health Management
Maximum Marks	4 Marks

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

We had formed a dedicated team with expertise in machine learning and animal health. Through collaboration and brainstorming, we identify key challenges in the poultry industry and select a meaningful problem statement focused on disease classification. This step lays the foundation for applying transfer learning techniques to develop an effective and impactful model that supports early disease detection and enhances poultry health management. Clear roles, goals, and understanding of the domain are established to ensure alignment and successful project execution.

## Step 1

### Data Collection & Sources



Public  
Datasets

Field Data  
Collection

Government/NGO Reports

Online Veterinary Portals

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

IDEAS FOR BRAINSTROMING & GROUPING:

1. DATA COLLECTION & SOURCES

2. DATA PREPROCESSING

3. MODEL DEVELOPMENT USING TRANSFER LEARNING

4. EVALUATION METRICS

5. APPLICATION IDEAS

6.CHALLENGES TO TACKLE

7.REAL-WORLD IMPACT

Step-3: Idea Prioritization

Priority	Stage	Description
1	Data Collection & Sources	Acquire high-quality, relevant data from trusted and diverse sources.
2	Data Preprocessing	Clean, normalize, and augment data to ensure it is model-ready.
3	Model Development Using Transfer Learning	Use pre-trained models and fine-tune on domain-specific tasks.
4	Evaluation Metrics	Select metrics (e.g., accuracy, F1-score, ROC-AUC) to assess model performance.
5	Challenges to Tackle	Identify technical or domain-specific issues like data imbalance or overfitting.
6	Application Ideas	Explore potential use cases where the model could add value.
7	Real-World Impact	Measure or anticipate societal, economic, or environmental influence.

