Project Design Phase
Proposed Solution Template

Date	27 June 2025
Team ID	LTVIP2025TMID40716
Project Name	Transfer Learning-Based Classification of Poultry Diseases for Enhanced Health Management
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

S.NO.	Parameter	Description
	Problem Statement (Problem to be solved)	Poultry farming suffers from heavy losses due to delayed or inaccurate disease detection. Most poultry farmers lack access to veterinary facilities or expert help, leading to widespread infections and economic loss. A rapid, affordable, and easy-to-use solution is required to detect I diseases earl
2.	Idea / Solution description	The project aims to develop an Al-powered web application using transfer learning with models like VGG16/VGG19/ResNet50 to classify poultry diseases from images. Users can upload an image of an infected bird, and the model will instantly predict the disease. The backend is built with Flask, and the app is deployable for wide use.
	Novelty / Uniqueness	- Leverages pre-trained deep learning models, reducing training time - Does not require technical expertise to use - Easy deployment on web and mobile platforms - First of its kind to bring image-based diagnosis for ul diseases into farmers' hands
4.	Social Impact / Customer Satisfaction	- Helps farmers detect diseases early, preventing outbreaks - Saves the lives of birds and improves food supply safety - Reduces cost of veterinary intervention - Builds confidence among rural poultry farmers

	Business Model (Revenue Model)	Freemium access: free basic predictions, premium detailed reports - Subscription plans for large-scale poultry farms - Collaboration with government schemes, NGOs - Potential ad-based revenue from poultry health brands

6.	Scalability of the Solution	- Scalable to include more poultry diseases - Extendable to other animals (goats, cows, etc.) - Can be turned into a multilingual mobile app - Integration with farm management software for larger adoption