Project Design Phase
Proposed Solution Template

Date	25 JUNE 2025
Team ID	LTVIP2025TMID34941
Project Name	Disease Recognition in Chickens
Maximum Marks	2 Marks

Proposed Solution Template:

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

Proposed Solution Details

S. No	Parameter	Description
1.	**Problem Statement**	Poultry farming often suffers due to delayed or inaccurate diagnosis of diseases in chickens, which leads to high mortality rates and economic losses for farmers. There is a lack of accessible and automated tools for early detection of these diseases, especially in rural or small-scale settings.
2.	**Idea / Solution Description**	The project aims to develop a deep learning-based web application that uses image classification (e.g., chicken feces, visible symptoms) to detect and classify common poultry diseases. By leveraging transfer learning with MobileNetV3Small and a user-friendly Streamlit interface, the tool will allow farmers or veterinarians to upload images and receive instant diagnostic predictions.
3.	**Novelty / Uniqueness**	Unlike traditional diagnostic methods which require lab tests or expert intervention, this solution provides real-time disease prediction through images using AI. The use of lightweight models enables easy deployment even on low-resource systems. The inclusion of stage-wise disease prediction and accuracy metrics adds depth to the solution.
4.	**Social Impact / Customer**	This tool helps reduce poultry mortality by enabling early detection, thus ensuring food security and supporting rural economies. It empowers farmers with technology, reducing dependency on expensive lab tests. Customer satisfaction is achieved through a simple, fast, and accessible diagnostic platform.

	Satisfaction	
5.	**Business Model (Revenue Model)**	The project can be scaled into a subscription-based SaaS model for veterinary clinics, poultry businesses, and NGOs. Freemium features for farmers and paid versions with additional analytics or disease history tracking can be monetized. Data collected can also contribute to research and analytics partnerships.
6.	**Scalability of the Solution**	The application can be easily scaled by training the model with more datasets, integrating multilingual interfaces, and extending the app to mobile platforms. The backend can support cloud deployment for broader access, and future versions can expand to other livestock or animal species.