Project Design Phase
Proposed Solution Template

Date	16 July 2025
Team ID	LTVIP2025TMID32540
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
1.	Problem Statement (Problem to be solved)	Farmers often struggle to identify poultry diseases accurately and in time. This leads to delayed treatment, higher mortality, and financial losses. There is a need for an accessible and efficient solution to diagnose poultry diseases using minimal resources.
2.	Idea / Solution description	The proposed system uses transfer learning on a pre-trained convolutional neural network (CNN) model to classify poultry diseases from images. Users can upload poultry images through a web interface, and the model predicts the disease and suggests appropriate treatment
3.	Novelty / Uniqueness	Utilizes pre-trained models (e.g., MobileNetV2) fine-tuned for poultry disease detection. Supports real-time inference via a lightweight, mobile-compatible interface. Integrates with a chatbot (IBM Watson Assistant) to provide user-friendly diagnosis support.
4.	Social Impact / Customer Satisfaction	The system empowers small and rural poultry farmers with quick, affordable disease detection, improving animal health and livelihood. It reduces dependence on veterinarians and lowers poultry mortality rates.
5.	Business Model (Revenue Model)	Freemium Model: Basic diagnosis is free; advanced reports or veterinary consultation available via subscription. B2B Licensing: Offer services to poultry farms, agri-tech startups, or government programs.

		Ad-Based Support: Optional revenue from sponsored tools or services in rural areas.
6.	Scalability of the Solution	The system is cloud-deployable and easily scalable to cover other animal diseases or add support for multiple regional languages. It can serve thousands of users with minimal infrastructure using cloud computing and microservices.