

Project Design Phase

Solution Architecture

Date	27 June 2025
Team ID	LTVIP2025TMID34246
Project Name	Transfer Learning-Based on Classification of Poultry Diseases for Enhanced Health Management
Maximum Marks	4 Marks

Solution Architecture:

Solution architecture is a critical design discipline that aligns technical solutions with business goals. In the context of this project, the solution architecture plays a central role in bridging the gap between the poultry farming challenge of disease identification and the implementation of a deep learning-based image classification system.

Its goals are to:

- Identify the most efficient AI-based solution to automate and improve poultry disease detection using visual data.
- Illustrate the system's structure, modules, and workflow to project stakeholders, including how users interact with the application and how predictions are processed.
- Define the essential features, development stages, and technical requirements such as model type (ResNet50), data flow, and integration points.
- Deliver a clear and executable blueprint that guides development, testing, and deployment of the solution in a structured manner.

Example - Solution Architecture Diagram:

