**Project Design Phase**

**Solution Architecture**

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| Date | 27 June 2025 |
| Team ID | LTVIP2025TMID40145 |
| 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:**

