**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 31 May 2025 |
| Team ID | LTVIP2025TMID43861 |
| Project Name | Transfer Learning-Based Classification of Poultry Diseases for Enhanced Health Management |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | Image Upload | Upload poultry image from mobile/web <br> Validate image format & size |
| FR-2 | Disease Classification | Run image through AI model <br> Return prediction label & confidence score |
| FR-3 | Notification & Alert System | Send disease alert via email/SMS <br> Trigger critical alerts for dangerous disease |
| FR-4 | Admin Dashboard & History | View disease history per user <br> Filter by disease, location, and date |

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | The application must be user-friendly, especially for farmers with minimal technical knowledge. |
| NFR-2 | **Security** | All user data and images must be securely transmitted and stored using HTTPS and encryption. |
| NFR-3 | **Reliability** | The system should provide accurate predictions consistently, even under high load. |
| NFR-4 | **Performance** | The system should classify diseases and display results within 5 seconds of image submission. |
| NFR-5 | **Availability** | The application should be available 24/7 with minimal downtime for updates or maintenance. |
| NFR-6 | **Scalability** | The system should be able to handle increasing numbers of users and images without performance loss. |