**Project Design Phase-II**

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

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| Date | 30 June 2025 |
| Team ID | LTVIP2025TMID35759 |
| 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 | User Registration | Registration through Form<br>Registration via Gmail/LinkedIn |
| FR-2 | User Confirmation | Secure login via Firebase Auth<br>Role-based access control |
| FR-3 | Image Upload | Upload poultry images via mobile/web<br>Image format validation |
| FR-4 | Disease Prediction | Send image to ML model<br>Get prediction result |
| FR-5 | Feedback Mechanism | Users can confirm/correct prediction<br>Send feedback to database |
| FR-5 | Prediction History | Store prediction logs in cloud DB<br>Allow users to view history |

**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 | Mobile-friendly UI, easy image upload, intuitive dashboard |
| NFR-2 | Security | End-to-end encryption, secure API calls, Firebase Auth |
| NFR-3 | Reliability | Consistent prediction performance across devices |
| NFR-4 | Performance | Fast image processing and prediction  (< 3s latency) |
| NFR-5 | Availability | 99.9% uptime via cloud deployment  (e.g., AWS, Firebase |
| NFR-6 | Scalability | Handle increasing number of users and images without lag |