Project Design Phase-II Solution Requirements (Functional & Non-functional)

| Date | 27 JUNE 2025 |
|---------------|---|
| Team ID | LTVIP2025TMID45694 |
| 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.

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|--------|-------------------------------|--|
| FR-1 | Image Upload | Upload poultry image via form (JPG,PNG) |
| FR-2 | Disease Prediction | Run ResNet50 model on uploaded image and return prediction |
| FR-3 | Display Result | Show predicted disease name |

Non-functional Requirements:

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

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|---|
| NFR-1 | Usability | Simple and intuitive UI for non-technical users (farmers) |
| NFR-2 | Security | Only verified images are accepted; prevent malicious file uploads |
| NFR-3 | Reliability | Model consistently returns accurate predictions |
| NFR-4 | Performance | Result should be shown within 3–5 seconds |
| NFR-5 | Availability | System should be available 24x7 with minimal downtime |
| NFR-6 | Scalability | Capable of scaling to handle more users and image uploads in the future |