**Project Design Phase-II**

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

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| Date | 20 July 2025 |
| Team ID | LTVIP2025TMID41443 |
| 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  Registration through Gmail  Registration through LinkedIN |
| FR-2 | User Confirmation | Confirmation via Email  Confirmation via OTP |
| FR-3 | Disease Detection | |  | | --- | | Upload poultry image for classification  Display predicted disease result |  |  |  | | --- | --- | |  |  | |
| FR-4 | Treatment Suggestion | Provide care instructions based on disease result  Show local vet contact info (optional) |
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**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 system provides a clean and responsive UI, allowing users to easily upload poultry images and get results. |
| NFR-2 | **Security** | Images are securely handled using Flask. No user data or images are stored |
| NFR-3 | **Reliability** | The model provides consistently accurate predictions across various disease categories and image qualities. |
| NFR-4 | **Performance** | Prediction and response time is under 2 seconds for standard image sizes. |
| NFR-5 | **Availability** | The system works 24/7 locally and can be deployed with minimal downtime on platforms like Render/Heroku. |
| NFR-6 | **Scalability** | Architecture can be easily extended to mobile apps, smart farming tools, or deployed on cloud services. |