**Project Design Phase-II**

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

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| Date | 27 June 2025 |
| Team ID | LTVIP2025TMID42022 |
| Project Name | Hematovision: Advanced Blood Cell Classification Using Transfer Learning |
| 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 | Classification | Perform classification using pre-trained model |
| FR-4 | Report Generation | Generate PDF report with classification summary |
| FR-5 | Image Upload | |  | | --- | | Upload image via form / drag-drop |  |  |  |  | | --- | --- | --- | |  |  | Validate file format and size | |
| FR-6 | User Access & Roles | |  | | --- | | Technician login and image upload interface |  |  |  |  | | --- | --- | --- | |  |  | Doctor login and diagnostic report view |  |  |  |  | | --- | --- | --- | |  |  | Admin access for integration and monitoring | |

**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 interface should be simple and intuitive for non-technical users like technicians and doctors. |
| NFR-2 | **Security** | The system must provide secure login and encrypted image/report storage. |
| NFR-3 | **Reliability** | System should operate consistently and provide accurate classifications. |
| NFR-4 | **Performance** | Results should be generated within 3–5 seconds per image under normal load. |
| NFR-5 | **Availability** | The system should be available 24/7 with 99.9% uptime. |
| NFR-6 | **Scalability** | The system should handle increased image uploads and classification without degradation. |