**Project Design Phase-II**

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

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| Date | 26 June 2025 |
| Team ID | LTVIP2025TMID35810 |
| Project Name | Hemotovision |
| 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 | Image Classification | Upload microscope image  Predict blood cell type  Display confidence score |
| FR-4 | Prediction History | View previous predictions  Filter by date or result |
| FR-5 | Report Generation | Download prediction report (PDF/CSV) |
| FR-6 | User Feedback | Submit feedback on prediction quality |

**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 will feature a clean and intuitive UI, accessible to non-experts such as students and technicians. |
| NFR-2 | **Security** | Input validation, file type restrictions, and optional HTTPS support will prevent malicious uploads and protect user data. |
| NFR-3 | **Reliability** | The system must provide consistent predictions with >94% accuracy, and avoid application crashes during usage. |
| NFR-4 | **Performance** | The model should return predictions within 1 second. The interface should remain responsive at all times. |
| NFR-5 | **Availability** | The tool must be available for local use even without internet. Cloud versions should maintain 99.9% uptime. |
| NFR-6 | **Scalability** | The architecture supports scaling to cloud platforms, mobile devices, or additional features like new cell types. |