Project Design Phase-II

# Solution Requirements (Functional & Non-functional)

| Date | Team ID | Project Name | Maximum Marks |
| --- | --- | --- | --- |
| 10 June 2025 | LTVIP2025TMID33677 | HematoVision | 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 blood smear image via web interface |
| FR-2 | Image Preprocessing | Resize image, apply normalization, and convert format if needed |
| FR-3 | Model Prediction | Send image to trained model for classification using transfer learning |
| FR-4 | Display Results | Display classified cell type with confidence score and analysis summary |

Non-functional Requirements:

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

| **FR No.** | **Non-Functional Requirement** | **Description** |
| --- | --- | --- |
| NFR-1 | Usability | User interface should be clean, responsive, and simple for students and staff. |
| NFR-2 | Security | Secure image upload and model access through HTTPS and token-based API auth. |
| NFR-3 | Reliability | Model service should return consistent results for the same input. |
| NFR- 4 | Performance | Classification should complete within 2 seconds for each image. |
| NFR-5 | Availability | Application hosted on cloud for 99.9% uptime and global accessibility. |
| NFR-6 | Scalability | Support increased users and image uploads via scalable cloud infrastructure. |

| FR No. | Non-Functional Requirement | Description |
| --- | --- | --- |
| NFR-1 | Usability |  |
| NFR-2 | Security |  |
| NFR-3 | Reliability |  |
| NFR-4 | Performance |  |
| NFR-5 | Availability |  |
| NFR-6 | Scalability |  |