Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	27 June 2025
Team ID	LTVIP2025TMID59764
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.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Image Preprocessing	The system shall allow users to preview uploaded images before processing.
FR-2	Blood Cell Detection	The system shall output a label and a probability score for each identified cell in the image.
FR-3	Performance and Reporting	The system shall allow export of classification results in standard formats
FR-4	Data Handling	The system shall anonymize image metadata to ensure patient privacy.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The system shall provide visual feedback, tooltips, and error messages to guide the user.
NFR-2	Security	The system shall comply with data protection regulations (e.g., HIPAA, GDPR if applicable).
NFR-3	Reliability	The system shall be available 99.9% of the time during operational hours.
NFR-4	Performance	The system shall support processing of at least 500 images per hour in batch mode.
NFR-5	Availability	The system shall log all user actions, image uploads, classification results, and model usage.