

Project Design Phase-II

Technology Stack (Architecture & Stack)

Date: 28 June 2025
Team ID: LTVIP2025TMID46346
Project Name: Hematovision Blood Cell Classification
Maximum Marks: 4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

Example: Hematovision - AI-powered blood cell classification system for automated hematological analysis

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web-based interface for uploading blood cell images and viewing classification results	HTML5, CSS3, JavaScript, React.js
2.	Application Logic-1	Image preprocessing and enhancement logic	Python, OpenCV, PIL
3.	Application Logic-2	Deep learning model inference engine	TensorFlow, Keras, Python
4.	Application Logic-3	Result processing and report generation	Python, NumPy, Pandas
5.	Database	Storage for user data, image metadata, and classification results	PostgreSQL
6.	Cloud Database	Cloud-based database service for	