

**Project Design Phase**

**Proposed Solution**

Date	26 June 2025
Team ID	LTVIP2025TMID46251
Project Name	<b>HematoVision: Advanced Blood Cell Classification Using Transfer Learning</b>
Maximum Marks	2 Marks

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1	Problem Statement	Manual blood cell classification is time-consuming, error-prone, and inaccessible in remote areas, leading to diagnostic delays and reduced treatment efficiency.
2	Idea / Solution Description	HematoVision uses transfer learning with MobileNetV2 to classify blood cells (eosinophils, lymphocytes, monocytes, neutrophils) via a Flask-based web interface.
3	Novelty / Uniqueness	Combines transfer learning and web deployment for real-time diagnosis; usable for education, remote healthcare, and clinical automation.
4	Social Impact / Customer Satisfaction	Enables faster, accessible, and accurate diagnosis; reduces burden on pathologists; supports medical learning and improves rural healthcare access.
5	Business Model (Revenue Model)	Freemium-based SaaS model for clinics; subscription for medical colleges; enterprise version for hospitals with premium analytics and support.
6	Scalability of the Solution	The model can be scaled with more cell types or diseases, integrated into diagnostic systems, and deployed across cloud platforms for global access.