

Project Initialization and Planning Phase

Date	5 July 2025
Team ID	SWTID1749835721
Project Name	Hematovision: Advanced Blood Cell Classification Using Transfer Learning
Maximum Marks	3 Marks

Define Problem Statements:

The current manual blood cell classification process presents critical challenges to both clinical practitioners and diagnostic labs, impacting diagnostic efficiency and patient outcomes. Technicians often rely on time-consuming, subjective visual inspections, which can lead to inconsistent results and delayed diagnoses-especially in cases involving rare or subtle cell abnormalities. These limitations are even more pronounced in resource-constrained environments lacking access to specialized expertise. To enhance diagnostic accuracy, speed, and accessibility, we aim to address these pain points. By understanding the specific inefficiencies and inconsistencies in current diagnostic workflows and leveraging transfer learning for automated, high-precision cell classification, HematoVision seeks to deliver a scalable, intelligent solution that supports faster, more reliable diagnoses and elevates the standard of haematological care.

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	A lab technician in a diagnostic center.	Accurately classify blood cells in patient samples.	Manual methods are slow and sometimes inaccurate.	I lack access to advanced diagnostic tools and trained specialists.	Concerned about delays in diagnosis and treatment.