

Project Design Phase
Problem – Solution Fit Template

Date	26/06/2025
Team ID	LTVIP2025TMID33042
Project Name	HematoVision-Blood Cell Classifier
Maximum Marks	2 Marks

Purpose: • Validate that our offline AI tool truly solves the core pain-points of blood-cell classification in resource-limited labs.

- Identify existing behaviours and channels to accelerate adoption.
- Align metrics and messaging to customer needs.

Problem	Existing Alternatives	Solution Concept	Key Metrics
Lab technicians spend 5–10 minutes per slide on manual microscopy, with high inter-observer variability and frequent delays.	<ul style="list-style-type: none">• Manual light-microscope classification• Centralized lab analyzers (costly, scarce)• Online AI services (requires network)	An offline Flask-based desktop app (HematoVision) using a compact, transfer-learned CNN to deliver top-3 cell-type predictions with confidence scores, heatmap explanations, and one-click PDF reports.	<ul style="list-style-type: none">• ≤ 5 s inference time• ≥ 90 % top-1 accuracy• PDF export ≤ 2 s• ≥ 80 % user satisfaction

> **References:** > [1. Problem–Solution Fit Canvas \(IdeaHackers\)](#) >
[2. HematoVision user research \(Sections 2 & 3\)](#)