Project Design Phase
Proposed Solution Template

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

S.No.	Parameter	Description
1	Problem Statement	Lab technicians in resource-limited labs face slow, error-prone blood cell classification using manual microscopy—delaying diagnosis and affecting treatment quality.
2	Idea / Solution Description	HematoVision is an offline AI-powered desktop tool that classifies blood cells from microscope images, displays top-3 predictions with confidence scores and heatmaps, and exports A4-style PDF reports.
3	Novelty / Uniqueness	Entirely offline, HematoVision combines image preprocessing, model inference, and reporting in a single lightweight Flask app—no internet or cloud dependencies.
4	Social Impact / Customer Satisfaction	Saves technician time, reduces diagnostic variability, and democratizes access to AI tools—particularly valuable in underserved regions.
5	Business Model (Revenue Model)	Freemium open-source base with optional paid upgrades (e.g., multi-user dashboards, EMR integration); institutional licensing for training colleges and hospitals.
6	Scalability of the Solution	Modular codebase enables easy updates and model swaps. Can be extended to other diagnostic microscopy tasks or bundled into rural health kits.