

Ideation Phase

Define the Problem Statements

Date: 28 January 2025

Team ID: LTVIP2025TMID46346

Project Name: Hematovision Blood Cell Classification using Transfer Learning

Maximum Marks: 2 Marks

Customer Problem Statement Template:

Create a problem statement to understand your customer's point of view. The Customer Problem Statement template helps you focus on what matters to create experiences people will love.

A well-articulated customer problem statement allows you and your team to find the ideal solution for the challenges your customers face. Throughout the process, you'll also be able to empathize with your customers, which helps you better understand how they perceive your product or service.

Reference: <https://miro.com/templates/customer-problem-statement/>

Problem Statement Framework for Hematovision:

Example Problem Statements:

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	A hematologist in a busy hospital laboratory	Accurately classify different types of blood cells from microscopic images for patient diagnosis	I spend hours manually examining each blood sample and sometimes miss subtle differences between cell types	Manual classification is time-consuming, prone to human error, and requires extensive expertise that may not always be available	Overwhelmed, concerned about diagnostic accuracy, and frustrated with the inefficient workflow
PS-2	A medical laboratory technician	Quickly process large volumes of blood cell samples while maintaining high accuracy standards	The current manual process creates bottlenecks during peak hours and requires constant supervision from senior staff	Our lab receives hundreds of samples daily, and manual classification cannot keep up with demand	Stressed about meeting deadlines and worried about quality control under time pressure

Your Team's Problem Statements:

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1					
PS-2					
PS-3					
PS-4					

Additional Customer Personas to Consider:

Primary Stakeholders:

- **Pathologists:** Senior medical professionals who need reliable diagnostic support
- **Laboratory Technicians:** Front-line staff who perform daily blood cell analysis
- **Hospital Administrators:** Decision-makers concerned with efficiency and cost-effectiveness
- **Patients:** End beneficiaries who need accurate and timely diagnostic results

Secondary Stakeholders:

- **Medical Students:** Learning blood cell identification and classification

- **Research Scientists:** Studying blood disorders and developing new treatments
- **Quality Assurance Managers:** Ensuring laboratory standards and compliance
- **IT Administrators:** Managing and maintaining diagnostic systems

Problem Validation Questions:

For each problem statement, consider:

1. **Frequency:** How often does this problem occur?
2. **Impact:** What are the consequences if this problem isn't solved?
3. **Current Solutions:** What alternatives do customers currently use?
4. **Pain Level:** How frustrated are customers with existing solutions?
5. **Willingness to Pay:** Would customers invest in a solution to this problem?

Solution Opportunity Areas:

Based on your problem statements, identify potential solution opportunities:

Problem Area	Opportunity	Technical Approach	Success Metrics
Manual Classification Inefficiency			
Diagnostic Accuracy Concerns			
Workflow Bottlenecks			
Training and Expertise Gap			
Quality Control Challenges			

Next Steps:

1. **Validate Problems:** Interview potential users to confirm these problems exist
2. **Prioritize Issues:** Rank problems by severity and frequency
3. **Define Success:** Establish clear metrics for problem resolution
4. **Design Solutions:** Develop technical approaches to address top priority problems
5. **Test Assumptions:** Create prototypes to validate proposed solutions

Notes & Insights:

Use this space to capture additional observations about customer problems:

Completed by: _____
Review Date: _____