

Ideation Phase

Brainstorm & Idea Prioritization Template

Date:31 January 2025

Team ID:LTVIP2026TMIDS91486

Project Name:HematoVision – Advanced Blood Cell Classification Using Transfer Learning



Maximum Marks:4 Marks

Brainstorm & Idea Prioritization Template:

Brainstorming provides a free and open environment that encourages team members to participate in the creative thinking process that leads to effective problem solving. Prioritizing volume over value, diverse ideas are generated, evaluated, and refined collaboratively.

This template is used to structure idea generation and selection for the HematoVision project.

Step-1: Team Gathering, Collaboration and Selection of Problem Statement

 <h3>Brainstorm & idea prioritization</h3> <p>Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're sitting in the same room.</p> <ul style="list-style-type: none">🕒 10 minutes to prepare👤 1 hour to collaborate👥 2-8 people recommended	<div>1</div> <h4>Step-1: Team Gathering, Collaboration and Selection of Problem Statement</h4> <hr/> <p>Identified Problem Area:</p> <p>Manual blood cell classification and microscopic image analysis.</p> <hr/> <p>Finalized Problem Statement:</p> <div>Manual blood cell classification is a time-consuming and expertise-dependent process prone to human error. Traditional diagnostic workflows require automated systems capable of accurately identifying different leleukocyte types using deep learning techniques.</div>	 <h4>Key rules of brainstorming</h4> <p>To run an u smooth and productive session</p> <ul style="list-style-type: none">🗨️ Stay in topic: 🌟 Encourage wild👂 Listen to others. 🗨️ Listen to others.🗨️ Go for volume. 👁️ If possible, be visual.
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Step-2: Brainstorming, Idea Listing and Grouping

2 Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes

TIP
You can record a video of your ideas and then use the grid to sort them.

Amar

Yakub

Person 3

Person 4

Person 5

Person 6

Person 7

Person 8

3 Group Ideas

Take turns sharing your ideas while clustering similar or related ones as you go. In the last 10 minutes, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

20 minutes

TIP
Add sub-points to your ideas to make it easier to find, track, and implement them.

Step-2: Brainstorming, Idea Listing and Grouping

Generated Ideas	Idea Grouping
<ul style="list-style-type: none"> Classical Image Processing Techniques Traditional Machine Learning Approach Custom CNN Model Transfer Learning-Based Deep Learning Model 	<ul style="list-style-type: none"> Feature extraction using handcrafted Classification using traditional ML algorithms End-end CNN-based classification Leveraging pre-train CNN architectures

Step-3: Idea Prioritization

4 Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

Step-3: Idea Prioritization

Evaluation Criteria

- ✓ Accuracy Potential
- ✓ Computational Efficiency
- ✓ ✓ Implementation Complexity
- ✓ Scalability

Selected Approach

Chosen Solution:

Transfer learning provides higher classification accuracy, faster convergence, efficient feature extraction reduced training conventional complexity computational approach

♥

Importance

Which of these ideas could get done without any difficulty or cost, which would have the most positive impact?

TIP
Participants can use their comments to point at others' sticky notes and give on the grid. This feedback can be used to help the team make better decisions.

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Feasibility

Regardless of their importance, which tools are more feasible than others? (Cost, time, effort, complexity, etc.)