

# Ideation Phase

## Brainstorm & Idea Prioritization Template

Date	24 June 2025
Team ID	LTVIP2025TMID35409
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 everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

Reference: <https://www.mural.co/templates/brainstorm-and-idea-prioritization>

### Step-1: Team Gathering, Collaboration and Select the Problem Statement

**Brainstorm & idea prioritization**

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

- 10 minutes to prepare
- 1 hour to collaborate
- 3-8 people recommended

**Before you collaborate**

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

- 10 minutes

**Team gathering**

Define who could participate in the session enclosed an invite. Share relevant information or pre-work ahead.

**Set the goal**

Think about the problem you'll be brainstorming on during the brainstorming session.

**Learn how to use the facilitation tools**

Use the facilitation tools to prepare to run a highly and productive session.

**Define your problem statement**

"Manual classification of blood cells is time-consuming and prone to human error. HematoVision aims to automate this process using deep learning models to accurately classify various types of blood cells for diagnostic support."

- 10 minutes

**Key rules of brainstorming**

To run an impactful and productive session

- Stay in topic
- Encourage wild ideas
- Defer judgment
- Listen to others
- Go for volume
- If possible, be visual

## Step-2: Brainstorm, Idea Listing and Grouping

2

Brainstorm

10 minutes

Here are the raw ideas for the memozVision project as requested:

1. Use Diffusion-based image classification
2. Build React frontend UI
3. Develop API with Flask
4. Include image augmentation
5. Build dataset dashboard
6. Include explainability (Gradio-CAM/SHAP)

Person 1

ML & Model Development

- Use Diffusion-based image classification
- Include image augmentation
- Include explainability (Gradio-CAM/SHAP)

Person 2

Frontend Interface

- Build React frontend UI

Person 3

Backend & Integration

- Backend API with Flask

Person 4

Data & Visualization

- Build dataset dashboard

3

Group ideas

20 minutes

ML & Model Development

The team proposed using **CAM-based image classification** as the core technique for identifying and categorizing different types of blood cells. To enhance the model's robustness and accuracy, they suggested **including image augmentation** techniques during training. Additionally, they planned to incorporate **explainability methods such as Grad-CAM or SHAP** to visualize and interpret the model's predictions.

Frontend Interface

It was suggested to **build a React-based frontend interface** that allows doctors and lab technicians to upload blood cell images and view the model's classification results in a user-friendly format.

Backend & Integration

The team recommended developing a **Flask-based backend API** to handle image uploads, process requests, and serve predictions from the trained machine learning model.

## Step-3: Idea Prioritization

