Ideation Phase
Brainstorm & Idea Prioritization

Date	28 June 2025
Team ID	LTVIP2025TMID60119
Project Name	HematoVision
Maximum Marks	4 Marks

Brainstorm & Idea Prioritization :

1. Problem Understanding

- Manual classification is time-consuming and error-prone.

- Need for quick, reliable diagnosis in hospitals and rural labs.

- Can deep learning assist medical professionals?

2. Solution Ideas

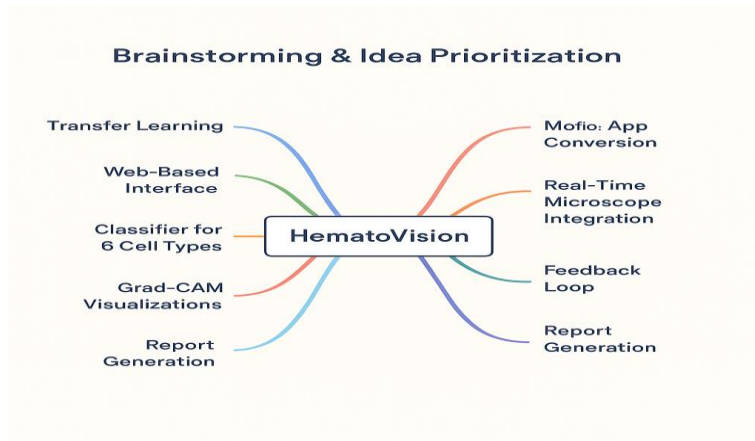| Idea	Description
Use Transfer Learning	Use pre-trained models like EfficientNet or ResNet.
Build Web App	User-friendly Flask UI for uploading images.
Focus on 6 Blood Cell Types	RBC, Platelet, Neutrophil, Lymphocyte, Monocyte, Eosinophil.
Auto-Predict with Confidence	Return class + confidence %.
Exportable Reports	Enable saving results as PDF/CSV.
Mobile Version	Use TensorFlow Lite to build an app for rural health workers.
Grad-CAM Heatmaps	Visualize prediction focus areas for transparency.
API Endpoint	Allow hospitals to send images via REST API.
Feedback System	Let users correct wrong predictions to improve the model.
Real-Time Classification	Direct input from digital microscope cameras.

3. User-Centered Features

- Support for high-resolution microscope images
- Simple upload and click-based UI

- Support for edge deployment (low power devices)

- Multi-language or local-language interface (for rural use)

Creative Add-ons (Future Scope)

- AI-generated lab reports

- QR code-based results download

- Voice-based diagnosis description

- Integration with Electronic Health Records (EHR)

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

Step-2: Brainstorm, Idea Listing and Grouping

2

Brainstorm

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

🕐 10 minutes

Amar

Yuktesh

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 notes 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 and break it up into smaller sub-groups.

🕐 20 minutes

Person 4