

Project Planning Template

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Team ID: LTVIP2025TMID43759

Project Name: Hematovision: Blood Cell Classification Using Transfer Learning

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Project Overview

Hematovision is a web-based application designed to classify microscopic blood cell images using deep learning and transfer learning techniques. It provides an intuitive interface for users to upload images and instantly receive the type of white blood cell (e.g., neutrophil, monocyte) predicted by the model. This tool helps support early medical diagnosis and enhances the understanding of blood cell morphology.

How the Application Works

- Launch: The user runs the app.py script in Anaconda Prompt.
- Access: Navigate to <http://127.0.0.1:5000> to open the web interface.
- Upload & Predict: Users choose a blood cell image using the upload button and click Predict.
- Result: The predicted cell type is shown with the uploaded image.

Tested Example:

- Test For Class-1: Neutrophil - correctly predicted and displayed.
- Test For Class-2: Monocyte - successfully predicted.

(Additional sections follow in full document...)