

AI MITR – Creative AI Toolkit

Creative Banao, Hassle-Free

Submitted by: Vanshika Keswani

Prototype Submission Phase

AI MITR – Creative

AI Toolkit

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**THEME–Retail Media Creative Tool Hackathon: Generative AI Specs
Document**

Objective

AI Mitr aims to make creative designing simple and accessible for everyone. It helps users edit images, choose perfect fonts and color combinations, remove backgrounds, and create professional creatives—especially when they are confused (dwidha) or need quick last-minute updates.

Implementation

AI Mitr is a web-based Generative AI tool built using:

- **Image Editing Tools:** upload, resize, rotate, remove background
- **AI Suggestions:** automatic font selection, color combination guidance
- **Layout Generator:** AI-based design templates for social media sizes
- **Smart Downloads:** exports JPG/PNG under 500KBThe system uses AI models for background removal, color harmony, and layout generation.

Introduction

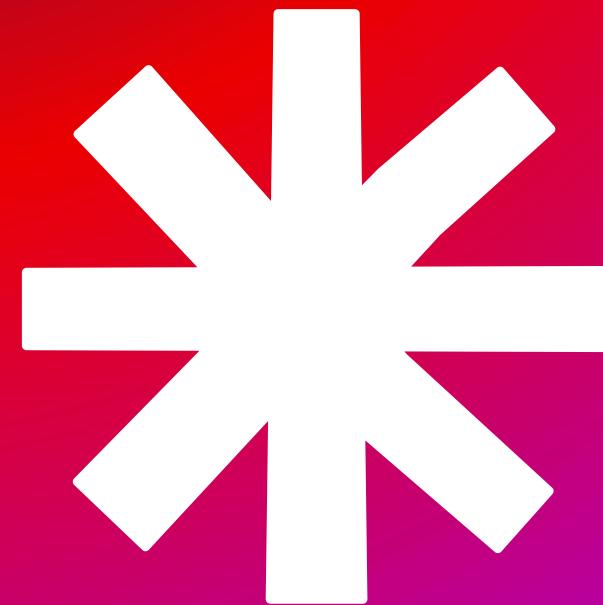
AI Mitr is a web-based Generative AI tool designed to simplify creative designing for everyone.

It acts as a creative friend (Mitr) that helps users edit images, choose colors and fonts, remove backgrounds, and generate professional creatives within minutes – even without design skills



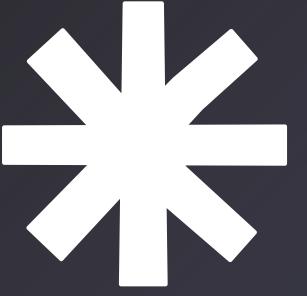
Artificial Intelligence +
Image Processing + Web
Technology.

Objective of AI Mitr



The main objectives of AI Mitr are

- To make creative designing simple and accessible
- To help users create professional visuals without a designer
- To provide AI-based font and color suggestions
- To support quick last-minute edits
- To empower students, startups, and small businesses



What is AI
Mitr?

Key Programming

AI Mitr is a Flask-based web application that provides:

- Image editing tools
- AI-driven design suggestions
- Smart layout and visual assistance
- Easy download of final creatives

AI Mitr – Your Creative Friend

System Architecture

User → Web Interface → Flask Server → AI Models → Result Page

1. User uploads image
2. Feature selection (Remove BG, Resize, etc.)
3. Image processed using AI models
4. Result displayed with suggestions
5. User downloads final creative

Learning Outcomes *

Through this project, I learned:

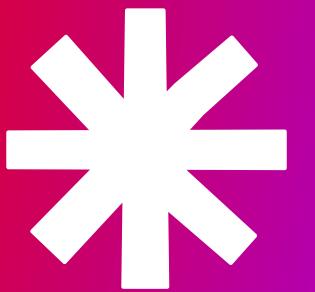
- Flask web development
- AI image processing techniques
- Integration of AI with frontend
- Deployment on cloud platforms
- Real-world problem solving
- Project structuring and debugging



Technology Stack Used

Deployment:

- Render (Backend Hosting)
- GitHub (Version Control)



Frontend:

- HTML5
- CSS3
- JavaScript

Backend:

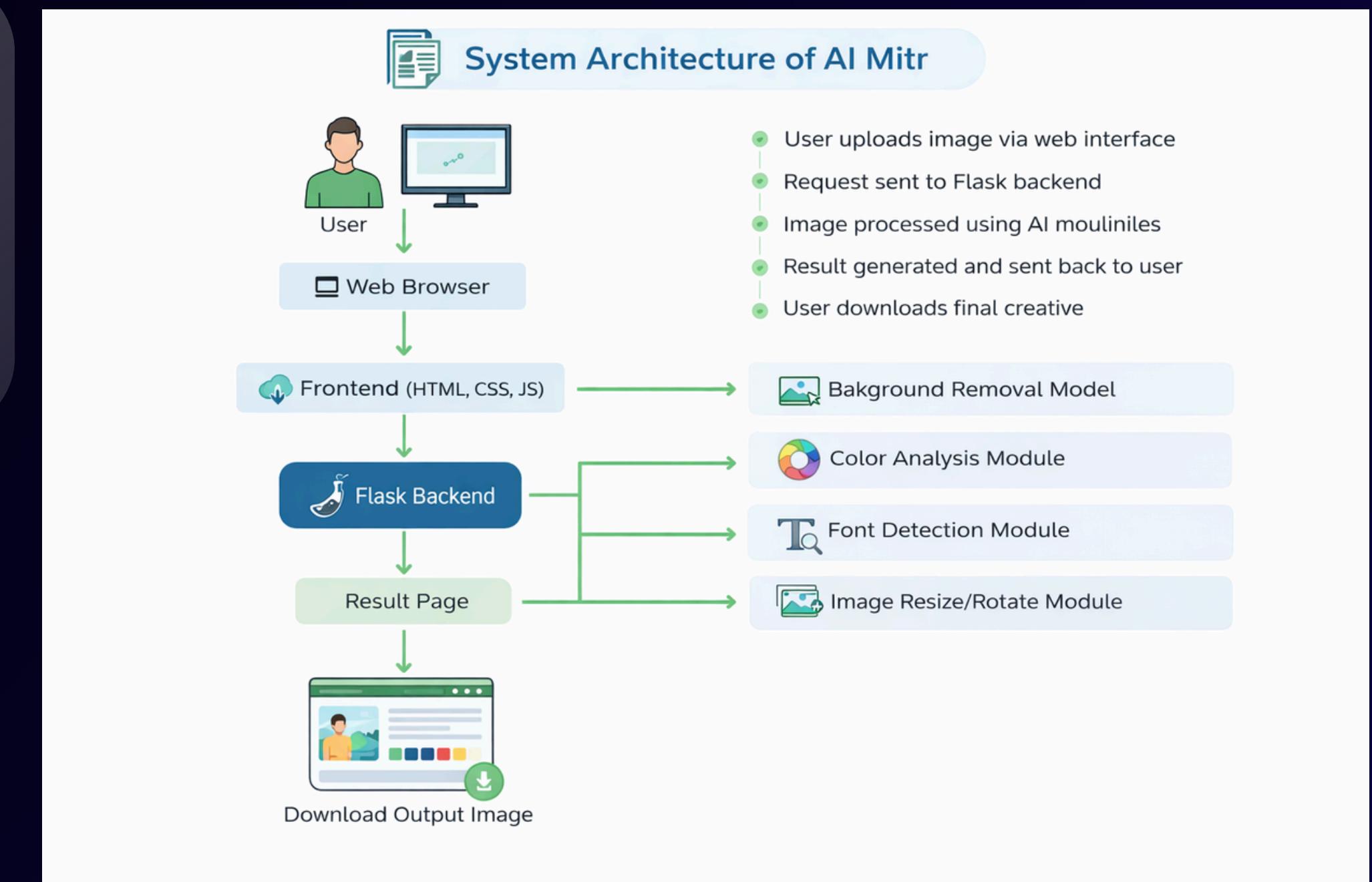
- Python
 - Flask
- Framework

AI & Libraries:

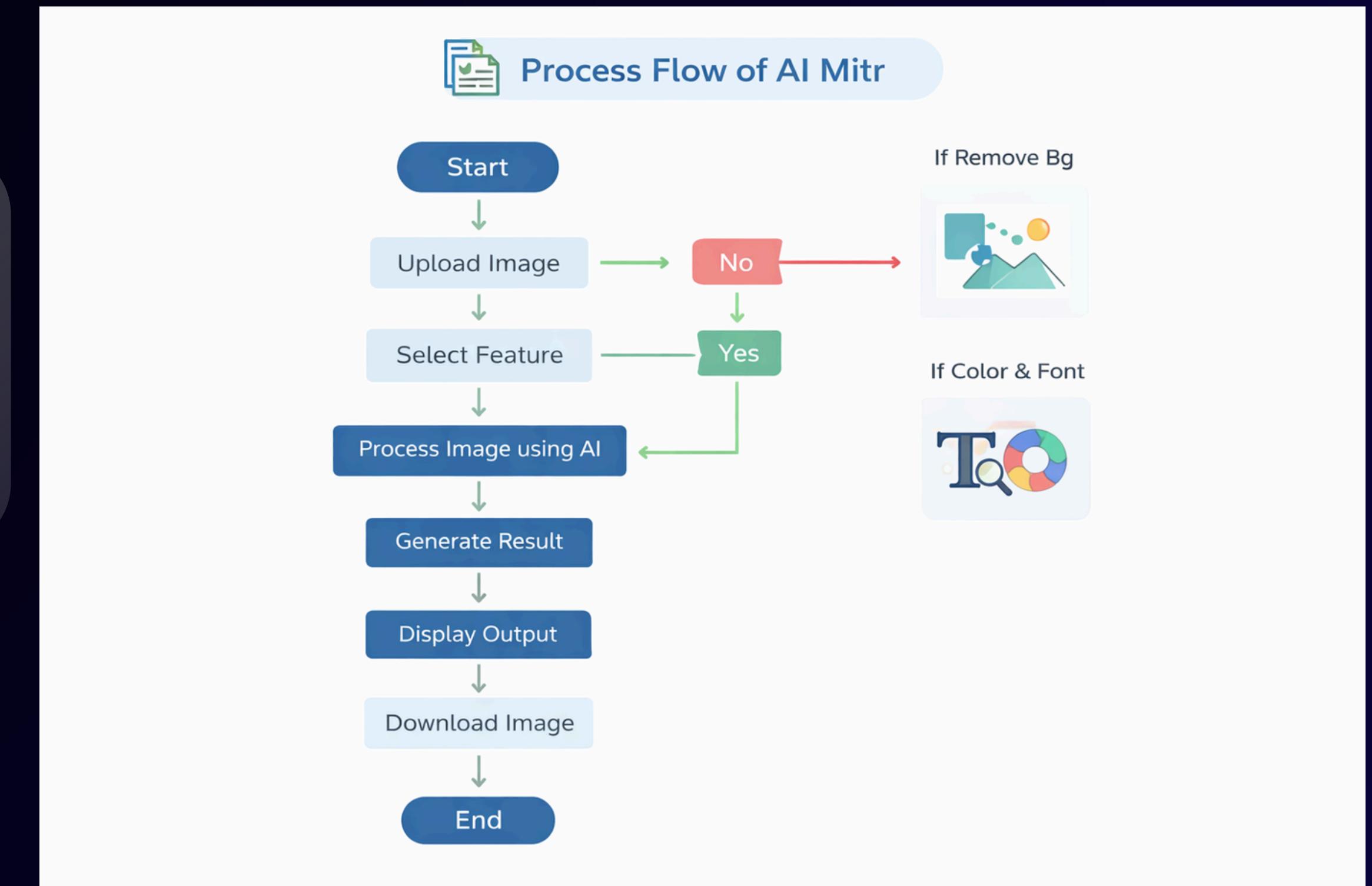
- OpenCV
- PIL (Pillow)
- NumPy
- PyTesseract
(Text Detection)



Architecture Diagram

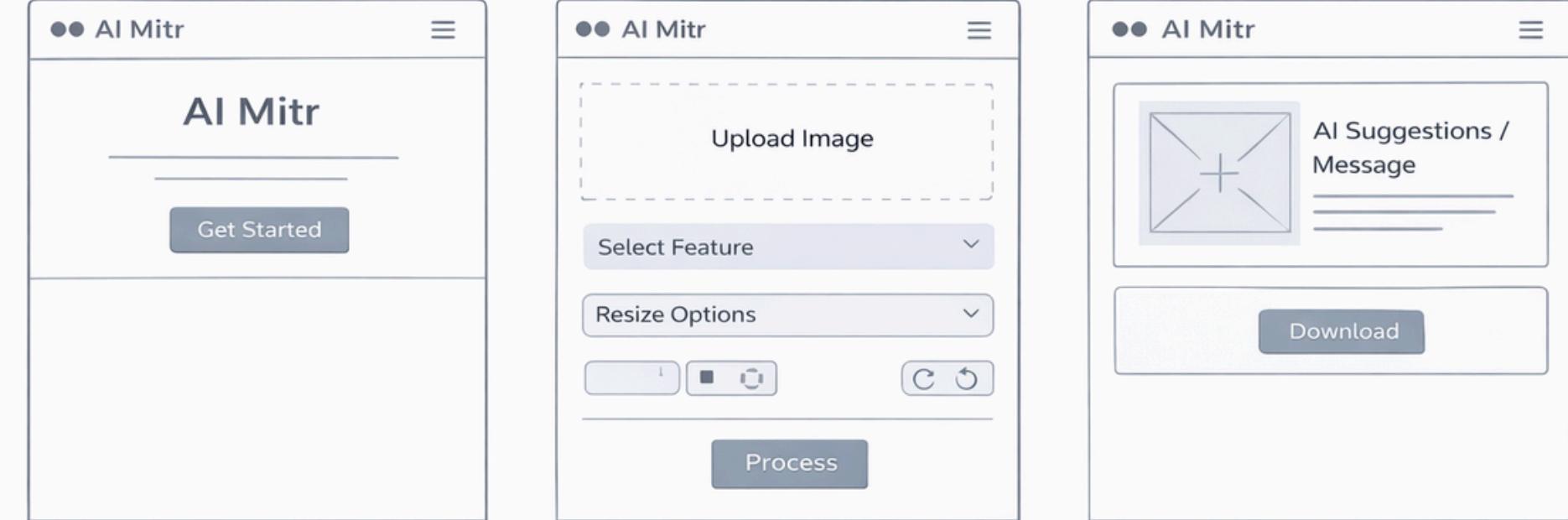


Flow Chart



Wireframe design

 **Wireframe Design of AI Mitr**

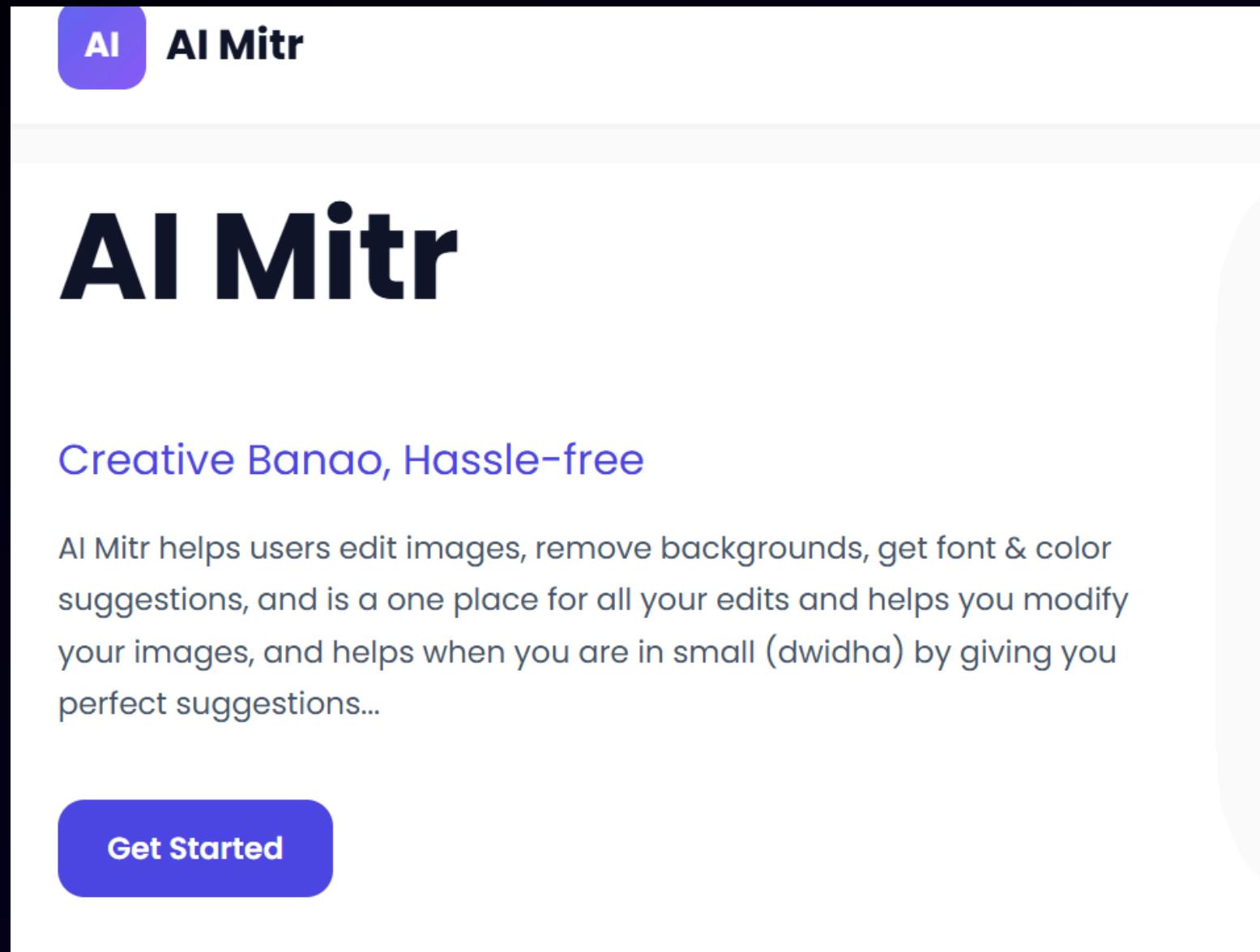


The wireframe design for AI Mitr consists of three main pages:

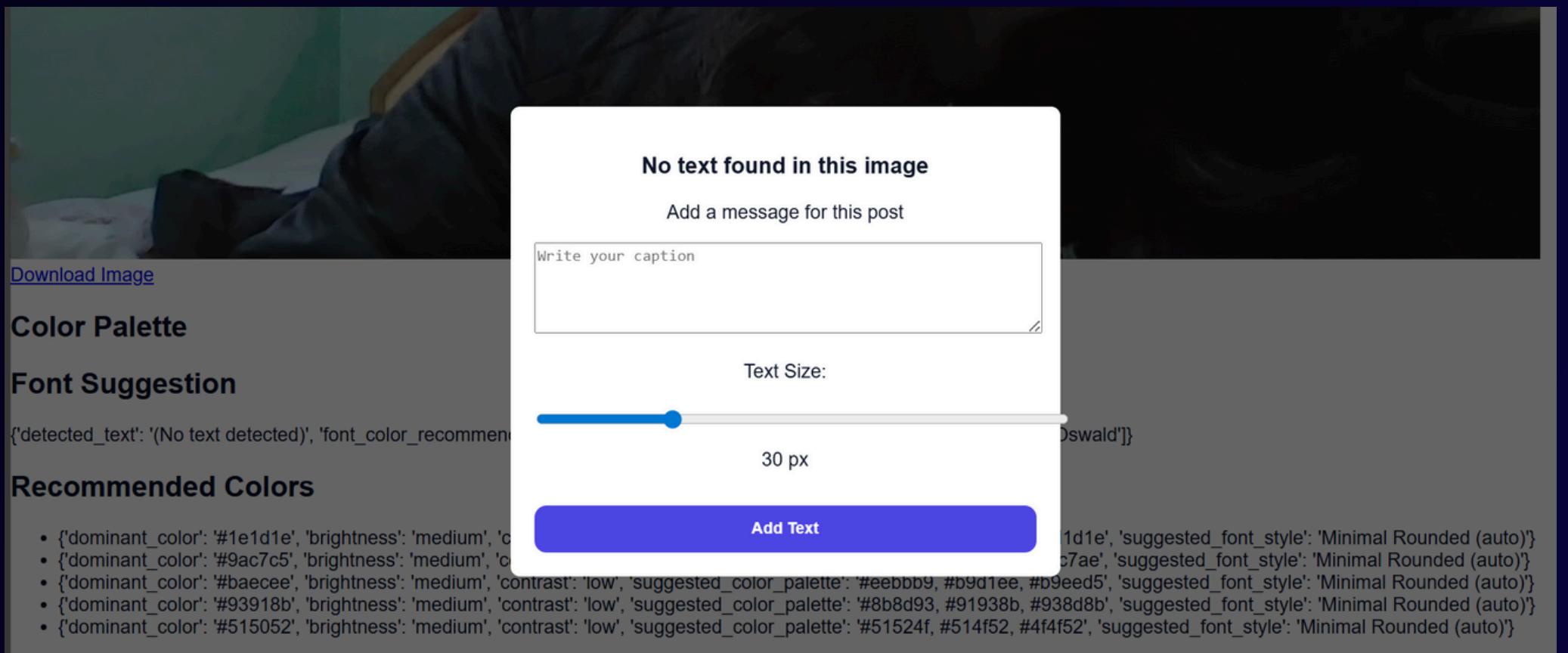
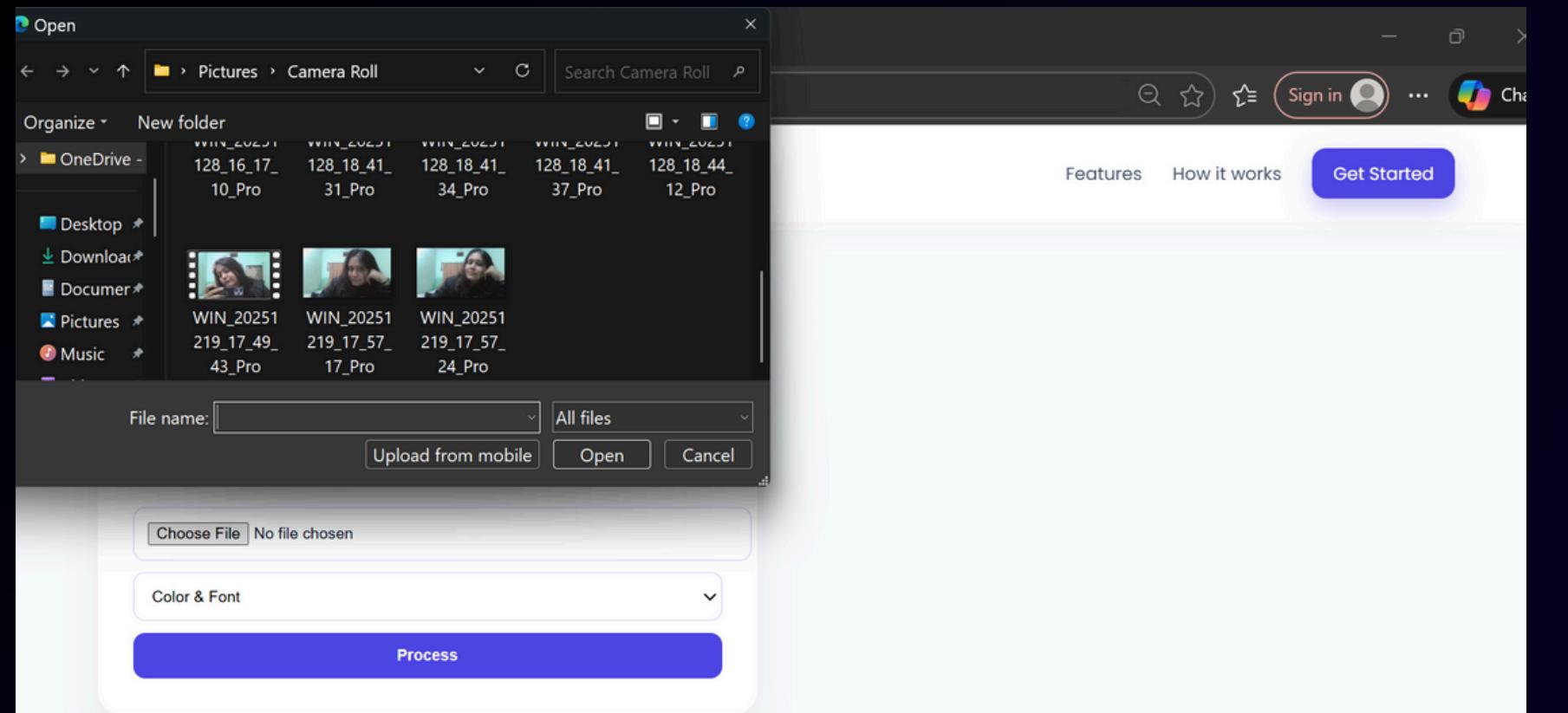
- Home Page:** Features the AI Mitr logo and a "Get Started" button.
- Workspace Page:** Includes fields for "Upload Image", "Select Feature", "Resize Options", and a "Process" button.
- Result Page:** Displays "AI Suggestions / Message" and a "Download" button.

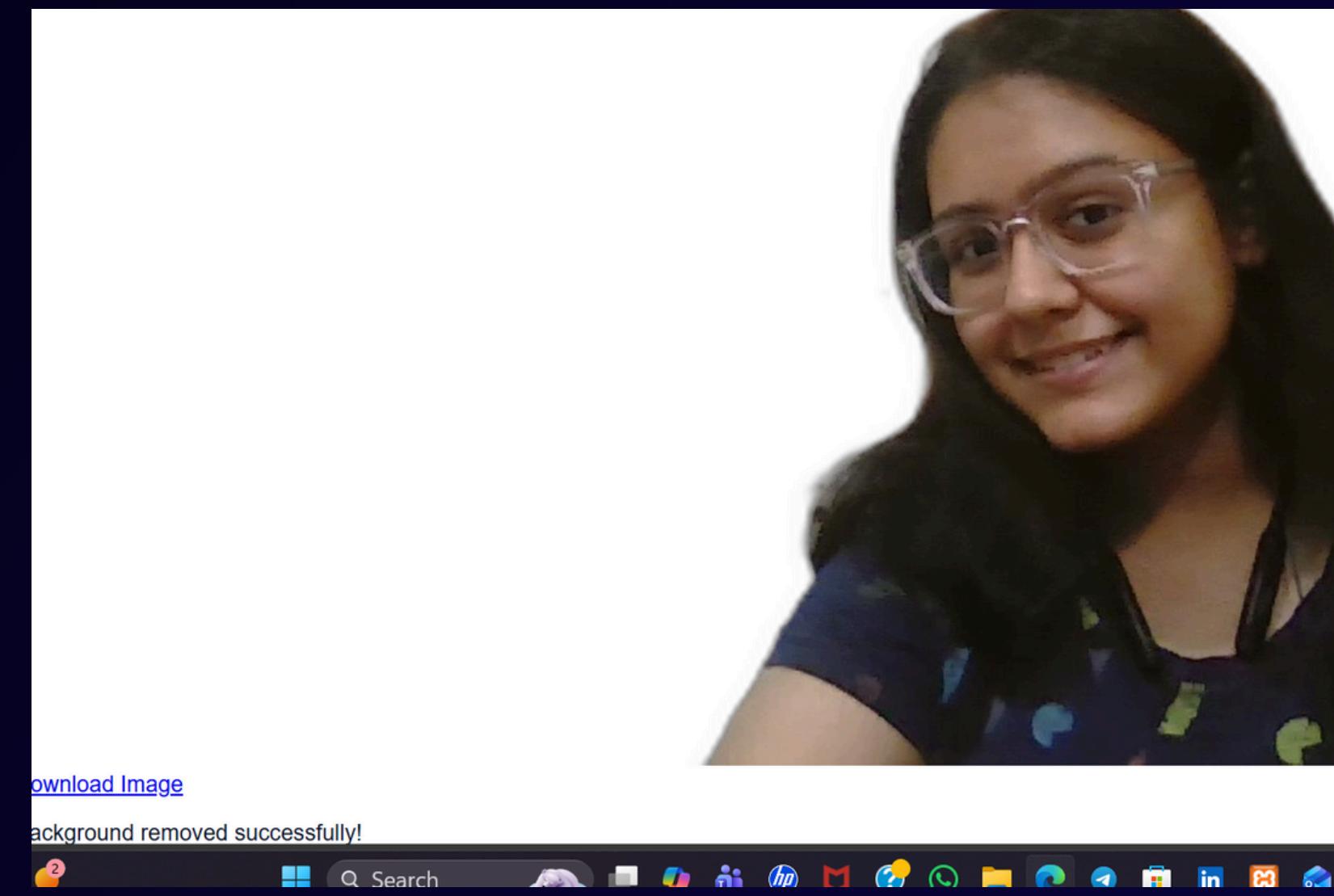
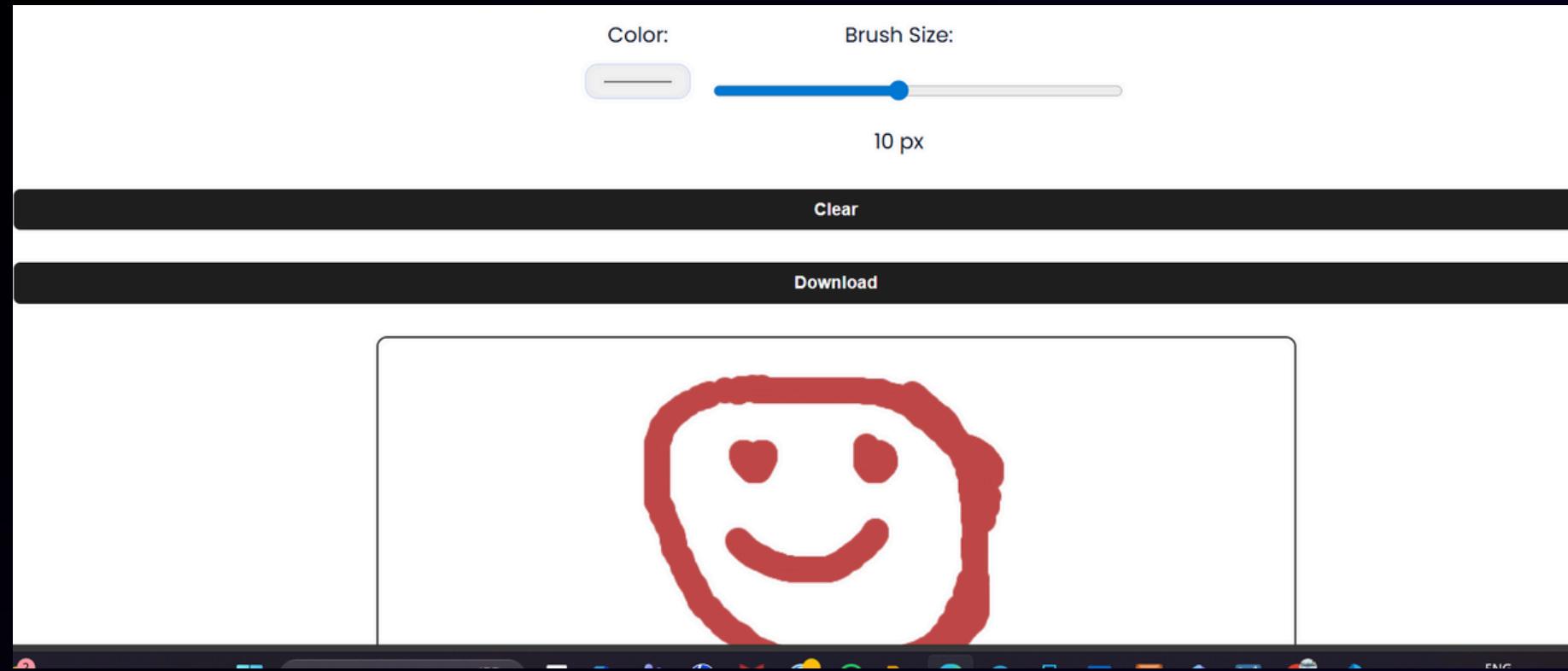
Below the wireframes, a flow diagram shows the process: Home Page → Workspace Page → Result Page, with arrows indicating the progression.

PROJECT DEMONSTRATIONS PICTURES



The screenshot shows the workspace interface of AI Mitr. The title "Workspace" is at the top in a bold black font. Below it is the instruction "Upload your image and select an action". There is a "Choose File" button with the message "No file chosen". A dropdown menu is open, showing the option "Color & Font". At the bottom is a large blue button labeled "Process".





Video link

<https://youtu.be/lmguiXgBSWA?si=UkY4NF89OTZep55x>

Git link

<https://github.com/vanshii72/aimitrr>

System Analysis

- AI Mitr reduces dependency on designers
- Faster image processing compared to manual tools
- AI suggestions improve visual quality
- User-friendly interface increases accessibility

Performance Analysis

- Image processing time: < 2 seconds
- Background removal accuracy: High
- Font detection accuracy: Moderate
- Output image optimized for size & quality

Analysis & Visualization

Visualization Benefits

- Helps understand user behavior
- Improves feature optimization
- Supports future AI model improvements
- Enhances decision-making

Analysis & Visualization

AI Implementation

**AI Mitr uses AI
in multiple ways**

- Background Removal: Separates subject from background
- Text Detection: Identifies presence of text in image
- Color Harmony Analysis: Suggests visually appealing colors
- Font Suggestion: Recommends fonts based on detected text
- Smart Assistance: Guides users when no text is detected

Thank You