DAYANANDA SAGAR UNIVERSITY

A WEB PROGRAMMING MINI PROJECT SYNOPSIS

ON

"PIXLR: PHOTO LAB"

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE & ENGINEERING

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TABLE OF CONTENTS

1. INTRODUCTION

- Web programming involves developing high-quality websites to be published to the World Wide Web, also known as the Internet. A website can be as simple as a static plain text page to a complex Web App, Business site, e-commerce or social media site.

- Photo editing is the art of enhancing an image to make it look more like what you saw with your eyes.

- While digital cameras are great tools, capable of capturing a myriad of images, they're also notorious for producing muted colours, low contrast, and off-balanced lighting. Photo editing helps correct these issues to bring out the true beauty of your photo the way you remember it.

- Use photo editing to bring out the vividness of colours, adjust exposure and get the lighting just right, remove unwanted objects, add photo effects to create a vintage look, and more.

2. PROBLEM DEFINITION

- PIXLR: PHOTO LAB is an image editor that allows the user to easily edit images through a web application.

- The users will be able to apply basic transformations like resize, crop, rotate in clockwise and in an anti-clockwise direction and can add various filters to any image.

- The text option allows the user to add text over an image in various fonts and sizes.

- The brush tool allows the user to draw over the image and the shapes option allows the user to add basic shapes over the image like a triangle, circle etc.

- We can upload the images via a link or directly upload from our local computer.

- After applying various transformations, we can download the image to our local computer

3. OPERATIONAL DEFINITION

- The most prominent steps that would be used in developing this project:
- Take input image to be edited using a link or from local storage
- Display toolbar of available transformations to apply on the pic
- Transform the image based on the tool selected and changes made
- Provide an option to download the image after the user is done editing

4. SCOPE OF THE PROJECT

- This project will touch upon various topics including:
    - Web development
    - HTML
    - CSS
    - JavaScript

5. EXISTING SYSTEM

- There are numerous photo editing applications available each has its distinctive features.
- They provide various tools to transform, edit your pictures such as draw tool, filters, stickers, color fix, etc.

6. CURRENT ISSUES / PROBLEMS IN EXISTING SYSTEMS

- In the available image editing tools, a user can only undo one most recently made change, the user can not view all the changes he has made and can't undo more than 2 changes to revert to the desired stage.
- User cannot apply multiple filters at once, if he wishes to apply two or more filters he has to apply one filter save the image, reopen it and then add the second filter, which becomes tedious.
- Whenever we apply text or draw on the image it gets added onto the image and if we want to compare the images with different drawings, texts it is not possible since we have to remove the old drawing, text using the eraser tool to add a new one.

7. PROPOSED SOLUTION

- Our system will tackle this issue by,
  - o Creating a history tab which will display a list of changes made by the user and upon clicking on a particular entry in the list it reverts him to that stage.
  - o Our system allows for multiple filters to be applied at once.
  - o Whenever the user adds text, drawings layers are created automatically and it is applied on the layers and not on the main image itself.

8. Hardware and Software Requirements

- **Software:**
  - Visual Studio Code
- **Hardware:**
  - A computer system with minimum 4GB of RAM

9. POSSIBLE OUTCOMES

- An online image editor.

10. REFERENCES:

- https://www.w3schools.com/js/DEFAULT.asp
- https://www.w3schools.com/html/
- https://en.wikipedia.org/wiki/Image_editing