Experiment Project Documentation

Introduction

This document consolidates the technical details related to the experiment documentation.

Project

Domain Name: Computer Science & Engineering
Lab Name: Image Processing
Experiment Name: Point Operations
The Point Operation program performed is a JavaScript version of the experiment written originally in PHP. It is used to demonstrate how the image quality can be changed by changing each of its pixel values according to the user input and the function used.

Purpose of the project

The purpose of the project is to convert the Point Operations experiment simulation from PHP to JavaScript.

Project Developer Details

Sl No	Name	Year of Study	Role	Email	Github handle
1.	Sruthy	2019	Developer	sruthysoma@gmail.com	sruthysoma

Technologies

1. HTML
2. CSS
3. JavaScript

Development Environment:
OS: Windows

Documents and it's roles:
1. Procedure: This document captures the instructions to run the simulations
2. Test Cases: This document captures the functional test cases of the experiment simulation
3. Code Documentation: This document captures the details of the code

Process followed to convert the experiment
1. Understand the assigned Java simulation
2. Understand the concept of the experiment
3. Re-implement the same in JavaScript

Value Added by our Project
1. Beneficial for students willing to learn coding websites
2. Helps in enhancement of image which is used in many fields now
3. Teaches the basics of image processing that forms the foundation for many high level technologies used in today's world related to image

Risks and Challenges
The main challenge was to access the pixel data of the images.It cannot be used in normal browsers due to security reasons.Making it a server helps in obtaining the pixel data of images. Each pixel has four major attributes to it namely the red,green,blue and alpha.Each of these values range between 0 and 255. To alter the pixel value,one must change each of the r,g and b values.However,this doesn't affect the size of the pixel.The range must be kept in mind and the inputs should be fed accordingly.