LZW-DRIVEN IMAGE COMPRESSION

User Guide

System Overview

LZW-Driven Image Compression for telemedical applications is a image compression software that makes use of the LZW algorithm for compression.The advantage of lzw algorithm comapred to other techniques is that it is lossless algorithm. The user uploads the image and the system returns the user a encrypted file.The user then sends the encrypted fileto receiver who then decrypts and downloads the original image using openssl.

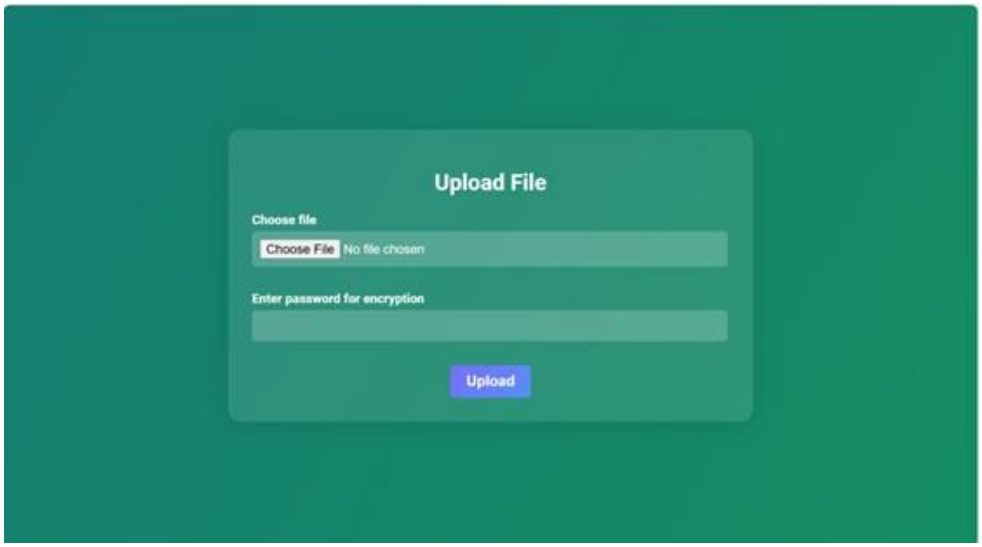
Getting Started

Accessing the System: Open your web browser and navigate to the LZW Driven Image Compression upload page.

Get Started: The user can get started just by uploading the image that he/she wants to compress.

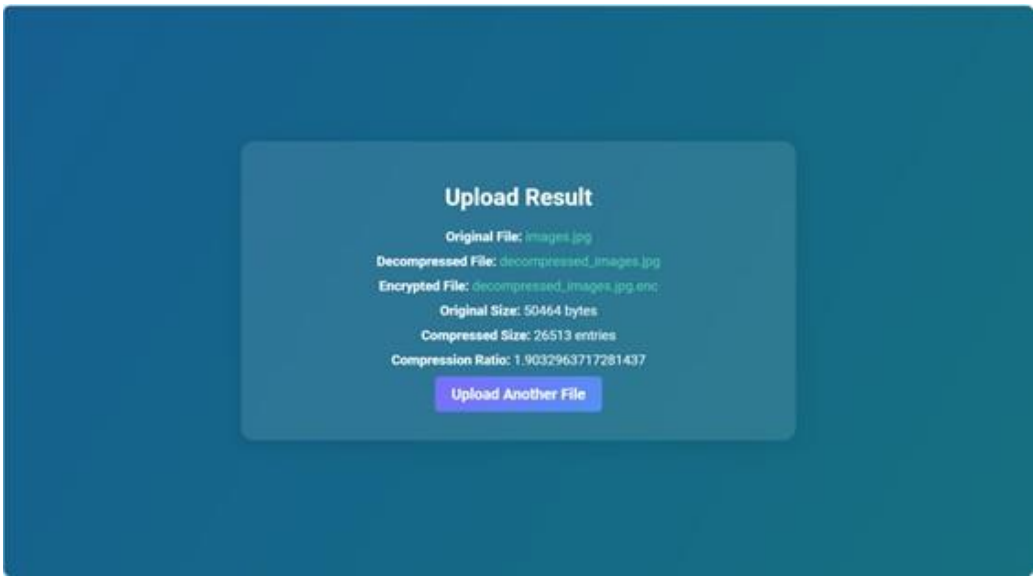
UPLOAD PAGE:

The Upload page is the primary screen users see when they start the application. It provides an interface for the user to upload the image they want to compress along with the password required for encrypting the compressed image.The software then checks if the uploaded image is grayscale or not.If the image is not grayscale the software prompts the message to the user to upload grayscale image.



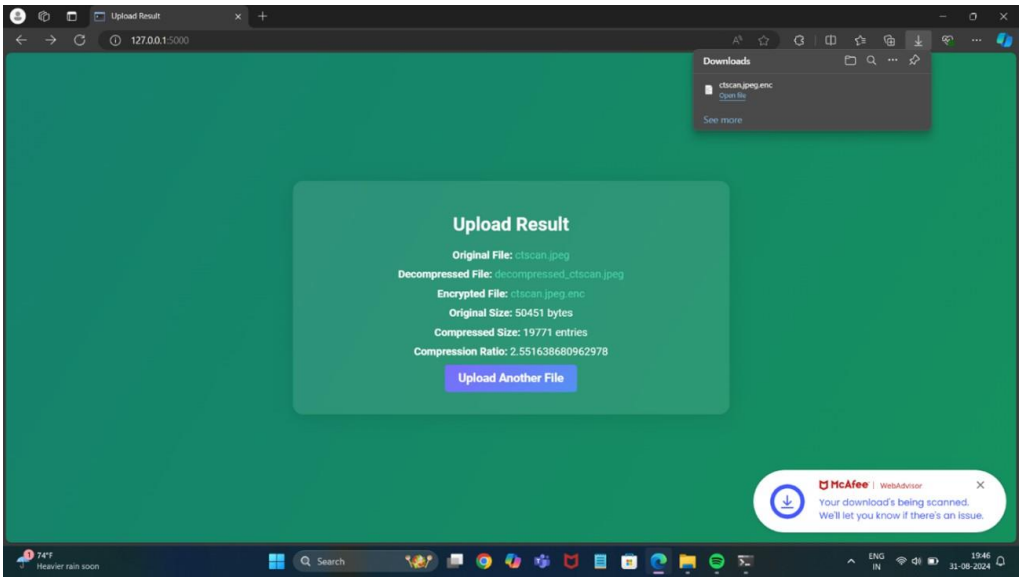
RESULT PAGE:

The result page then shows all the information regarding the compressed image which includes original file, decompressed file, encrypted file, size of original file and size of the compressed file along with the compression ratio. It also comes with a upload another file button if the user wants to compress any other image.



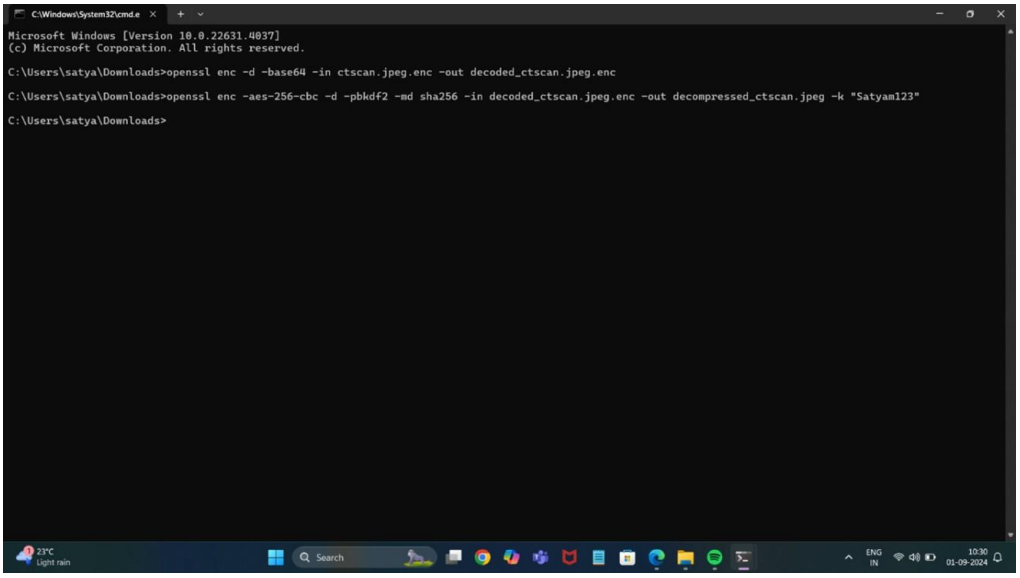
DOWNLOAD PAGE:

As seen on the top right in the image, the user is provided with the option to download the encrypted image file to his directory.



DECRYPTION COMMANDS PAGE:

The page consists of decryption commnads that are used to decrypt the file that was encrypted using openssl by providing the password given during uploading the image. The image is encrypted in base64 and decrypted using sha256. The user can provide anyname by which he wants to save the image.



FINAL IMAGE:

The page shows the final compressed and decrypted image in the receivers directory.The size of the image is less compared to the original image and the quality of the image is enhanced compared to the original image. The objective of using LZW algorithm for image compression was achieved successfully.