Design Document
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Photo Editor

Data

Image width and length- 2D Array of integers
Starting Menu- Switch Statement with numbers
File Pointers row, column
Editing Menu- Switch Statement with numbers
Save imagine- 2D Array
Save edit imagine - 2D alter Array

Functionally

This is an image processing application that allows users to manipulate grayscale images represented by numerical brightness values. Users will be presented with a menu where they can choose to perform various actions, including loading, saving, rotating, or cropping the image.

Functions

Main()
Functionality: Loads the file and displays various questions to the user, prompting them to choose whether to load, display, or edit the image using a menu. It uses a switch statement to decide on the option selected by the user.

loadnewimage()
Functionality: If selected, ask the user for the file name. Once the user inputs the filename, it ensures that the file opens successfully and then closes it.

displayimage()
Functionality: If selected, loops through the image array and prints out the corresponding character based on the brightness levels.

editimage()
Functionality: If selected, displays a menu to the user with options such as crop, dim, brighten, rotate, or save the image. Once the user picks an option, it performs the corresponding action.

cropimage()
Functionality: If selected, ask the user for the cropping dimensions. It then checks if the crop dimensions are within bounds, creates a temporary array to store the cropped image, copies the cropped area to the temporary array, and updates the image dimensions to the cropped size.

dimimage()
Functionality*:* If selected, defines the dimming value based on the provided table and adjusts it as desired. It applies the dimming to each pixel in the image array using a loop and notifies the user once the image has been dimmed.

brightenimage()
Functionality: If selected, defines the brightness value based on the provided table and adjusts it as desired. It applies the brightness to each pixel in the image array using a loop and notifies the user once the image has been brightened.

rotateimage()
Functionality*:* If selected, rotate the image using a loop to access each element and move it to the opposite side in the array.

saveimage()
Functionality: Prompts the user for a filename to save the edited image. Once the filename is provided, it opens the file, saves the image data from the array into the file using a loop, closes the file, and notifies the user that the image has been saved.