Design Document
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Erinstagram

Due dates for functions - Sunday

Data

Image - 2d array
Save image - file IO
User choices - int, scanf
Text prompts - printf
Display image - Selection and iteration
New cropped image - pointer

Purpose

Users can choose to load a new image, edit or display the current image, or exit the program. If they choose to edit, a new menu is displayed with the options of crop, dim, or brighten. Then the user can choose if they want to save the edited image or go back to the original image. The user can also load a new image from a file they want. If they choose to save their image, they go back to the original prompt menu.

Functions

Main() - Both
Data: Switch statement and scanf for user initial menu choice, printf statements for when the user value is exit or not allowed and for the options. Variable for user input.
Functionality: Prompts user with the options of load a new image, display the current image, edit it, or exit. Prints these and the user choice is taken in using a scanner. The user choice variable then goes to a switch statement which makes function calls based on the choice.

editMenu() - Isabel
Data: Function calls for the edit options, switch statement for the user choice on how to edit the image. Variable for the user choice
Functionality: Prompts the user for their choice of how to edit their image, and whatever they pick that function is called, unless its an invalid choice or the user chooses to exit the program.

loadImage() - Matthew
Data: 2d array to save image data to, and a variable for the file that they choose to enter.
Functionality: Prompts the user to enter the name of the file that they want to load, then open the file in read mode and store the image pixels in a 2d array, and display a message about the image being loaded and close the file.

displayImage() - Matthew
Data: go through the 2d array containing image data with a for loop, use selection through an if statement to print the characters.
Functionality: The 2d array is looked through and prints the characters depending on their character that's represented on the table, and prints a message telling the user it was successful.

crop() - Matthew
Data: 2d array, variable for user input for start and end coordinates for cropping
Functionality: Prompt the user for their start and end points for the amount of the image that they want to crop, then use for loops to copy over the cropped section to a new 2d array pointer and return the new array

dim() - Isabel
Data: 2d array for the image, new 2d array for the dimmed image
Functionality: Iterate through the 2d array and Dim each pixel of the image by 1 and return the new array

brighten() - Isabel
Data: 2d array for the image, new 2d array for the brightened image
Functionality: Iterate through the 2d array and brighten each pixel of the image by 1 and return the new array