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Final Project Design

Data

Imgsize - array of int

Pixels - int

Brightness - int

RenderChars - char

Erinstagram Play

User chooses to load the image in from the main menu. User decides what editing options they would like to apply to the image and the image is updated and displayed accordingly. User is prompted to save their image or continue editing, and then redirected to the main menu.

Functions

mainMenu()

Data: Ints for user choice.

Functionality: The menu displays to the user and prompts them to choose from a menu the action they'd like to do. If a user makes an invalid choice, the menu should prompt the user to enter another option. If the user chooses to exit the program, the program should end. If the user selects the "edit" option, a secondary menu will populate with options of how to edit the current image that the user can choose from. The user's choice in the primary or secondary menus should direct the program which function to employ next. Once actions are completed based on the user's choice, the menu should repeat until the user quits the program.

loadImage()

Input Parameters: File pointer, int pixels, int brightness, int array

Returned Output: none

Functionality: Load images of any "size" from a file name provided by the user.

displayImage()

Input Parameters: int pixels, int brightness, int array
Returned Output: none
Functionality: Display the number of pixels in one line and the image brightness levels in another line under it.

cropImage()
Input Parameters: int pixels, int array
Return Type: int
Functionality: Users will input the new "size" of the image, and the function will remove pixels in order to match the image to the new dimensions. The new image will be displayed to the user.

dimOrBrightenImage()
Input Parameters: int pixels, int brightness, int array
Return Type: int
Functionality: Users will input how much they'd like to dim or brighten the image, and the program will change the brightness values accordingly. The new image will be displayed to the user.

rotateImage()
Input Parameters: int pixels, int array
Return Type: int
Functionality: Users will decide if they'd like to rotate the image to the left or the right. The program will shift pixels accordingly to create a rotation effect and display the new image to the user.

saveImage()
Input Parameters: int pixels, int array, int brightness
Return Type: none
Functionality: Users will be prompted to save their image or continue editing. If they choose to continue editing, they will be redirected to the main menu. If they are ready to save their image, they will be prompted for a file name and then redirected to the main menu.