

Design Document
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Erinstagram

Data

Image - array of ints for different brightness values
File pointer for image
User choice - int for menu selection
Image dimensions - int for rows and columns in the image
User input for file name
New image - array of ints
File pointer for new image
File name for saving new image

Functions

main()

Data: none

Functionality: initialize variables, display the menu, call functions based on user input, loop until user chooses to exit.

loadImage()

Input parameters: image array, pointers to rows and columns

Returned output: none

Functionality: prompt user to enter file name, open file and read image data, update the row and column values with the dimensions of the image.

displayImage()

Input parameters: image array, rows and columns

Returned output: none

Functionality: display the image

editImage()

Input parameters: image array, rows and columns

Returned output: none

Functionality: display the menu, run corresponding functionality based on the user choice, update the image array

cropImage

Input parameters: image array, pointers to rows and columns

Returned output: none

Functionality: prompt user to specify coordinates, crop image, update row and column values

dimImage

Input parameters: image array, rows and columns

Returned output: none

Functionality: decrease the brightness of each pixel

brightenImage

Input parameters: image array, rows and columns

Returned output: none

Functionality: increase the brightness of each pixel

rotateImage

Input parameters: image array, pointers to rows and columns

Returned output: none

Functionality: rotate the image by 90 degrees, update the row and column values