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Data

Current image – 2D Array of chars (User provide size)

UserInput - int

ImageStatus - Bool

saveImagePrompt- string

filename - string

brightnessValue – int

brightnessValue0 = ‘ ‘

brightnessValue1 = ‘.’

brightnessValue2 = ‘o’

brightnessValue3 = ‘O’

brightnessValue4 = ‘0’

character - char

maxBrighnessMessage = “Image is at the max brightness”

minBrighnessMessage = “image is at the lowest brightness”

Program Loading

The field and image is set in file, the user gets prompted with options to display image, load image, edit image, and quit. If user chooses edit image, they will get display another set of options to configure the image, such options are dim, brighten, crop, and rotate. After the user done, they will be brought back to the main menu and they are able to selected another option. If quit, the program is finished.

Functions

Main()

Data: Arrays for image display and user options. Image stats and image configuration.

Functionally: Load the image from a file. Create arrays based on image size. Display image. In a loop display menu option and run user selection. Validation for user input. File output. Clear array. User prompt.

DisplayMenu()

Input: none

Output: return user input

Functionality: Take in the user option (display current image, edit image, load image), and provide option to exit program

DisplayCurrentImage()

Input Parameter: steam file name.

Return Output: none

Functionality: Display the current file to the terminal

EditImage()

Input Parameter: current image, (Pass by Reference)

Return Output: User input

Functionality: Take in the user input, display image, write to file

CropImage()

Input Parameter: 2D image array.

Return Output: none

Functionality: new size 2Darray

Dimimage()

Input Parameter: 2D image array.

Return Output: none

Functionality: loop and update the contents inside the 2Darray

Brighteimage()

Input Parameter: 2D image array

Return Output: none

Functionality: loop and update the contents inside the 2Darray

Rotate()

Input Parameter: 2D Image array

Return Output: None

Functionality: loop and update array