Design Document
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Image Processor

Data
Image - 2D array of brightness values
Image size - Pixel Width and Height - array
Image name - String
Edited Image - 2D array of brightness values

"Game Play"

The user will use the menu to load an image / array, and it will be displayed, the user will use the menu to choose to either crop, dim, brighten, or rotate the image. This will preform the action and save that action, and return to the menu until they exit.

Functions
main()
Data:
Functionality: Introduce the program, and load up the menu function.

loadImage()

Input Parameters: File name string
Returned Output: None
Functionality: Read the "contents" of an image file and load it into the Image 2D array.

displayImage()

Input Parameters: Image 2D array
Returned Output: None
Functionality: Render the Image array to the screen using the values of each brightness value.

editMenu()

Input Parameters: None
Returned Output: None
Functionality: Display the edit menu, show the user different functions.

cropImage()

Input Parameters: Image 2D array, coordinates for the crop area
Returned Output: None
Functionality: Modify the Image array to crop image, add to edit history

dimImage()
Input Parameters: Image 2D array
Returned Output: None
Functionality: Decrease all brightness values by one, update the Edited Image array, and add to edit history.

brightenImage()
Input Parameters: Image 2D array
Returned Output: None
Functionality: Increase all brightness values by one, update the Edited Image array, and add to edit history.
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rotateImage()
Input Parameters: Image 2D array
Returned Output: None
Functionality: Rotate the image 90 degrees, update the Edited Image array, and add to edit history.