# Design Document
## Austin Seaver
## Final Project Design

## Data

Image - 2D array
File pointer image
Brighten - boolean
Dim - boolean
Crop - boolean
Edit - boolean
Row - int
Colum - int
Final image

## Functionality

A menu will load with the following options load the image, display the current image, edit the current image, exit the current image, and exit the program. If they choose to edit they will be met with another menu where they will be able to choose from crop, dim, brighten, and rotate. If they choose to load a new image it will be pulled from a file. If they choose to display the current image it will read from the file and print the image, and if they choose to exit the program will terminate.

## Function

main()
**DATA:** Arrays for image size. Variables for choice of user, brightness, character, rotate, dim, crop
**Functionality:** Load image from file. Display image, edit image, load a new image, display brightness chart, display menus, save image to file, return to first menu.

loadImage()
**Input Parameter:** File pointer, 2D array, rows, columns
**Return Output:** none

**Functionality:** load values from file into 2D array

displayImage()

**Input Parameter:** File pointer

**Return Output:** image

**Functionality:** displays the image from a file

editImage()

**Input Parameter:** File pointer, brightness, character, rotate, dim, crop

**Return Output:** New image

**Functionality:** allows the user to choose how they want to edit the image

cropImage()

**Input Parameter:** Image, crop, size

**Return Output:** image

**Functionality:** allow the user to crop the image

dimImage()

**Input Parameter:** Image, dim

**Return Output:** image

**Functionality:** allow the user to dim the image

brightenImage()

**Input Parameter:** Image, brighten

**Return Output:** image

**Functionality:** allow the user to brighten the image

rotateImage90()

**Input Parameter:** Image, rotate

**Return Output:** rotated image

**Functionality:** Allow the image to be roasted 90 degrees in 1 direction