

**Design Document**  
**Final Project CS 135**  
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**Data:**

load\_image(char \*filename)  
display\_image(char \*filename)  
edit\_image(char \*filename)  
crop\_image()  
dim\_image()  
brighten\_image()  
rotate\_image()  
save\_image(char \*filename)

**Execution:**

User is asked four questions. Load a new file? Display the current image? Edit the current image? Exit the program? If the user selects to load a new file it will prompt them to enter the file name to load. This will load the file then ask them if they would like to edit the image/file or save it. If the user selects to display the current image the image will display. If they choose to edit the current image. This will prompt another menu asking if they would like to either crop, dim or brighten the image. If they choose to edit the current image After completing any of the functions it will ask them to save the image, then asking for a file name to save it under.

**Functions:**

Main()

Data: Choice on what to do to the image.

Functionality: Load the file, allowing editing to the file. Within the case the user has a choice on what they would like to do; load, display, edit or exit.

LoadImage()

Input Parameters: char, filename

Returned Output: image loaded

Functionality: To successfully load the image from the file that the user selects.

DisplayImage()

Input Parameters: char, filename

Returned Output: image displayed

Functionality: To physically display the image or tell the user that the image was unsuccessfully loaded.

EditImage()

Input Parameters: char, filename

Returned Output: Crop, dim, brighten, return to menu

Functionality: Menu for editing the current image. It prompts the user for editing options until the user decides to return to the main menu.

CropImage()

Input Parameters: none

Returned Output: left coords, upper coords, right coords, lower coords, image cropped

Functionality: This function allows the user to crop the current image. It prompts the user to enter the left, upper, right, and lower coordinates of the cropping rectangle.

DimImage()

Input Parameters: none

Returned Output: image dimmed

Functionality: Dims the image, applying the pixel technique provided.

BrightenImage()

Input Parameters: none

Returned Output: image brightened

Functionality: Brightens the image, applying the pixel technique provided.

SaveImage()

Input Parameters: char, filename

Returned Output: image saved

Functionality: This function saves the edited image to a file specified by the user. Prints a message indicating that the image has been saved successfully.