CSC 120: Image Editor

Object Interaction

1 Introduction

The purpose of this lab is to introduce and learn the concept of object interaction. An object consists of data and methods grouped together to form an entity. It also has a sort of ”object interface” which consists of methods that define how the object will interact with other objects.

For this lab, you will be developing two classes: a Camera and an Image class. The camera capabilities on the Android phone will be utilized. You will be required to code each of these objects in a way that they can interact with each other to accomplish the task of capturing a picture and editing that picture.

The Camera class should be able to take a picture with the camera, and then send it to the Image class to be maniplulated by the user.

*I will include more detailed information for each class after I am able to program each class successfully and know what each should be capable of.

*Different methods used from an API will be included here for the students to research before beginning. After the program is finished I will fill this in.

*A picture of the GUI of the app will also be included.

2 Objective

In this lab, you will develop a camera/image editor app. A picture will be taken with a simple method call, and then the image will be manipulated with different effects, such as greyscale. There will be two different classes: Camera and Image. Using different objects of these classes, the concept of object interaction will be learned.

3 Activity

3.1 Research

*classes and methods from APIs will be added here to research

3.2 Explore

Open the ImageEditor.java file. Explore the file. Read the comments. Note the parts of the code that you will be required to fill in. They will be labeled.

3.3 Import

In order to use the classes and methods from APIs, you have to import the required libraries. Import the *names will be given* libraries.

4 Conclusion

In this lab, you have learned the concept of object interaction. This was done through designing two separate classes: a Camera and Image class, and having them interact with each other to capture and edit an image. In the future, you should be able to design different objects and have them work together to solve complex problems.

5 Deliverables

The deliverables for this project are as follows:

ImageEditor.pkg - with your version of ImageEditor.java