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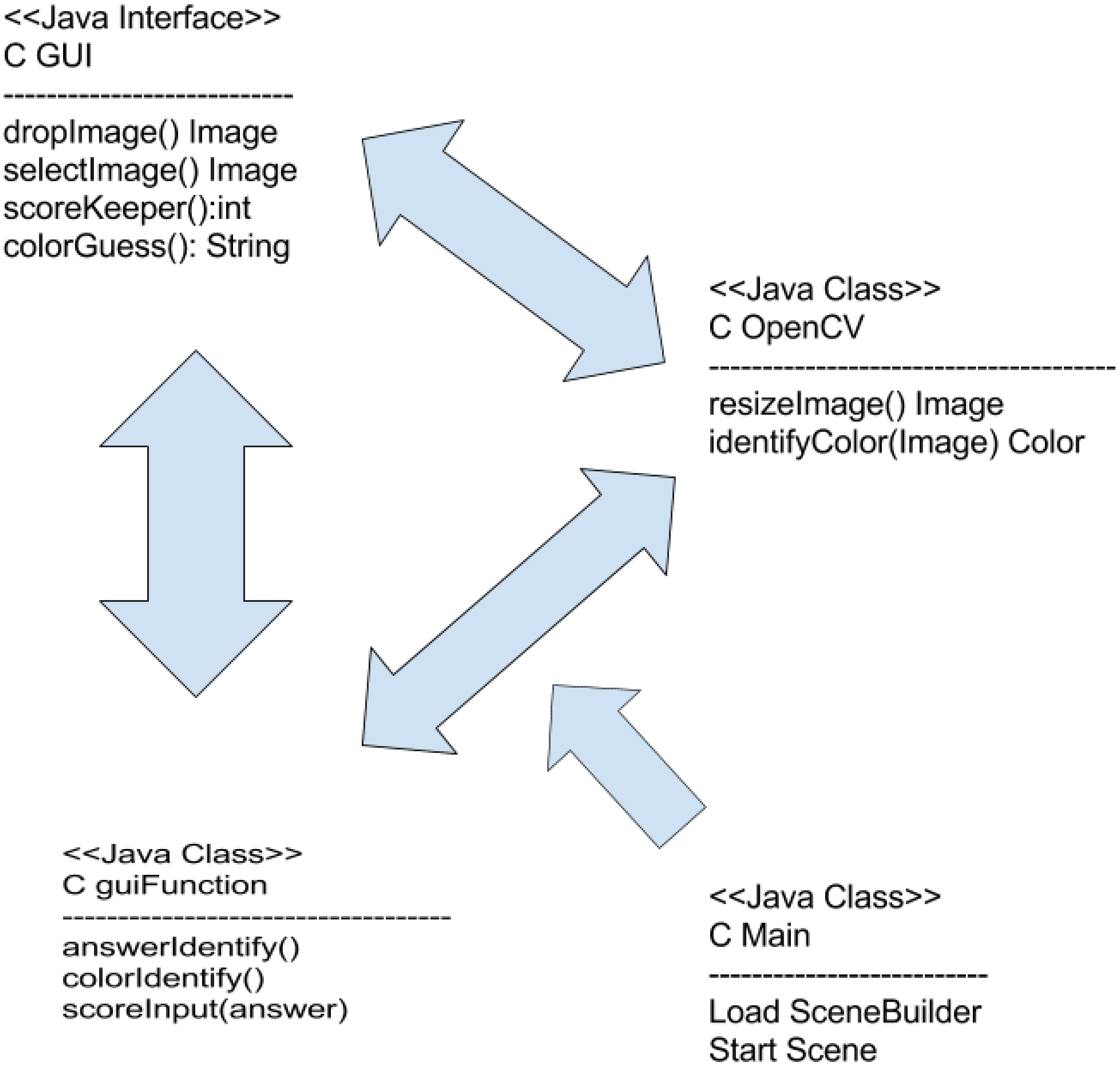
Java Project Milestone
4/6/2017
Software Development 1

UML Diagram



<<Java Interface>>
C GUI

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dropImage() Image
selectImage() Image
scoreKeeper():int
colorGuess(): String

<<Java Class>>
C OpenCV

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resizeImage() Image
identifyColor(Image) Color

<<Java Class>>
C guiFunction

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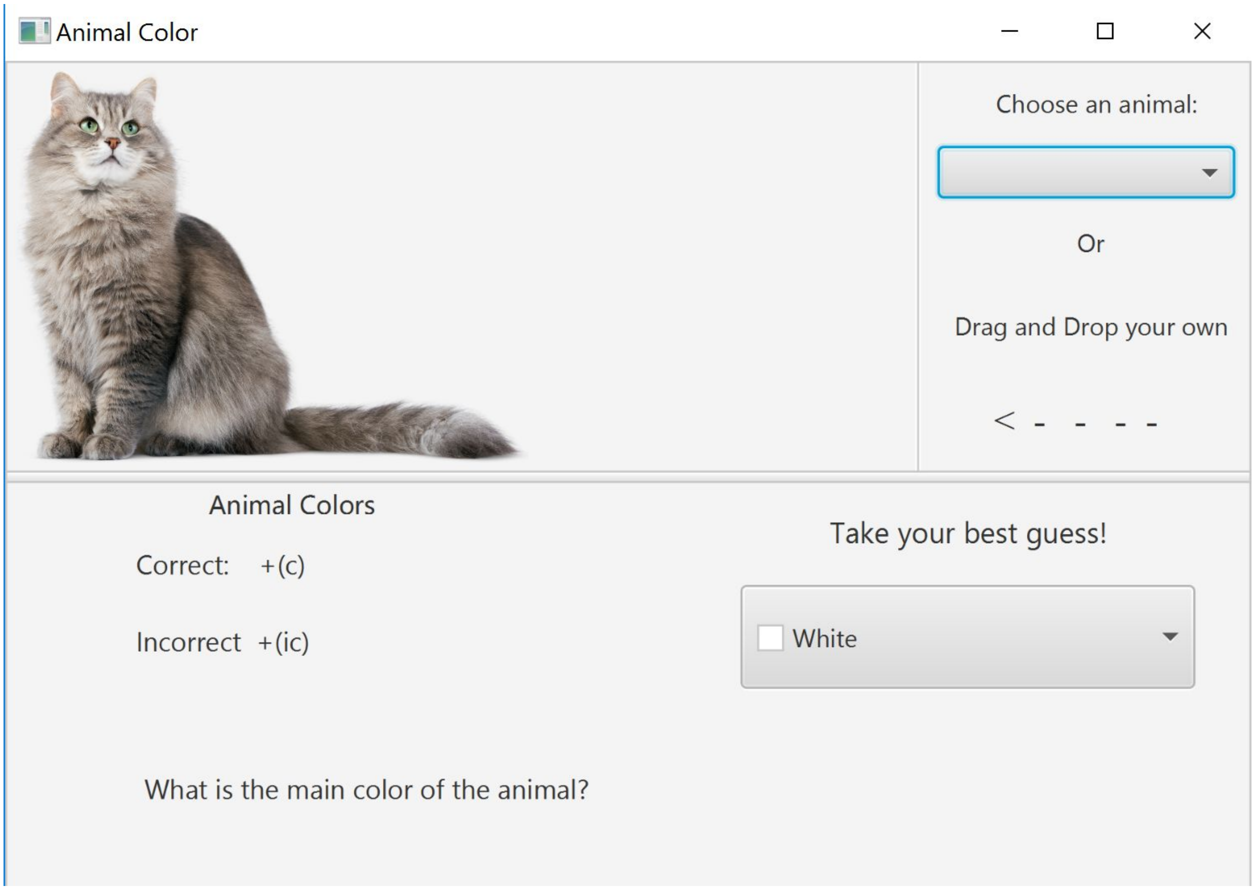
answerIdentify()
colorIdentify()
scoreInput(answer)

<<Java Class>>
C Main

Load SceneBuilder
Start Scene

The objective of the Color Project is to create a java program that is capable of identifying the color of an image and then utilizing the information to create a simple guessing game. Ideally, the preset images and uploaded images of the color project will be animals and so users can then guess the main color of the animal in the image. The motivation behind this project comes from the desire to help color blind children who need assistance developing the skills to identify colors to keep up with other children. The physical requirements for this project will only be a computer with some form of an interactive equipment (mousepad, touchscreen or mouse). Next, I will get into the functionality behind the code.

The GUI that children will be looking at will be a basic screen that will be very easy to navigate (as pictured below).



Take your best guess!

What is the main color of the animal?

Inside the interface the children will be able to guess the main color of the anime, as well as choose an animal from the drop down menu or drag and drop their own images. Once a guess has been inputted the code will then add a number to either the correct or incorrect section. The code will run as long the window is not closed.

As the user interacts with the interface and selects an image it will trigger events that will be connected to the OpenCV class that will resize the image and identify what the main color of the animal is. The OpenCV resizeImage() function will immediately resize the image and return it to the GUI so the experience is uninterrupted. On the other hand, the color identified will be stored in the guiFunction class and then be compared to the user input once the decision has been made. Once the answer has been compared the scoreInput() function will either add +1 to the correct or incorrect section accordingly.

In terms of the future of this project, I intend to add some thematic colors to the GUI by adding a css. Not only that, I would potentially like to add a score keeping system where there will be a limit of 5 answers and then the user will be able to track progression as they attempt to get 5 out of 5. Lastly, I would like to have others test my program and seek any advice for other functionalities to be implemented.