Deliverable #2

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The Testing Process

Testing will be done with a script command which will:

- compile classes that will be used in testing
- read test case files and execute methods with specified input
- compare the method's result to the expected output
- log result in an html file

Requirements Traceability

Calculates distance between two colors

Finds the contrast of an inputted color object

Takes a color object and outputs a string of the HSL value (hue, saturation, lightness)

Takes a string input of a hexadecimal value and converts those values to a string RGB

Calculates Euclidian distance between two colors

Tested Items

ContrastChecker.java

- distanceColor()
- computeContrast()

ColorConverter.java

- rgb2Hsl()
- hex2Rgb()

DistanceCalculator.java

- calculate()

Testing Schedule

09/22/2020-10/05/2020: Design a detailed test plan and develop test cases for multiple methods and classes.

10/13/2020: Finish test cases and update current plan

10/27/2020: Finish Automated Tests

Test Recording Procedures

Each test result will be parsed into an html file and upon completion the file will be displayed on the user's browser.

Hardware and Software Requirements

Hardware: Possessing a computer that can allocate enough space in memory to clone the open-source documents

Software: Utilising Git and GitHub, Java, OS Terminal

Constraints

Meetings with Team (connectivity, work conflicts, sickness, emergencies, etc.)

Unit Tests

Example Test Case

```
Id:
Requirement:
Class:
Method:
Input:
Output:
```

Test Case 1:

```
1
Takes a color object and outputs a string of the
HSL value (hue, saturation, lightness)
ColorConverter.java
rgb2Hsl
0,0,0
“hsl(0.0, 0.0%, 0.0%)”
```

Test Case 2:

```
2
Takes a color object and outputs a string of the
HSL value (hue, saturation, lightness)
ColorConverter.java
rgb2Hsl
255,255,255
“hsl(0.0, 0.0%, 100.0%)”
```

Test Case 3:

3
Takes a color object and outputs a string of the HSL value (hue, saturation, lightness)
ColorConverter.java
rgb2Hsl
1,2,3
“hsl(210.0, 50.0%, .8%)”

Test Case 4:

4
Takes a color object and outputs a string of the HSL value (hue, saturation, lightness)
ColorConverter.java
rgb2Hsl
0,0,123
“hsl(240.0, 100.0%, 24.1%)”

Test Case 5:

5
Takes a color object and outputs a string of the HSL value (hue, saturation, lightness)
ColorConverter.java
rgb2Hsl
81,54,200
“hsl(292.2, 57.5%, 49.8%)”