

Chapter 1

Report

Our chosen project is Tanaguru Contrast Finder, which is software that finds the best color contrast for people with vision impairment.

We started by cloning our HFOSS project, Tanaguru Contrast Finder, from <https://github.com/Tanaguru/Contrast-Finder.git>. The project was already set up to build using maven. On our virtual machines, we used “sudo apt install maven” in the terminal. We compiled and tested Contrast Finder by using the command “mvn clean && mvn package”. The project has the Surefire plugin to run unit tests. The outputs from those tests are below and include which test classes were run and if there were any failures, errors, or skipped tests. None of the unit tests ran failed or had errors and no tests were skipped.

Experiences

We had a lot of trouble getting our virtual machines to work at first. Our chosen distribution was Lubuntu, a lightweight flavor of Ubuntu. However, installing it on VirtualBox didn't work at first, so we switched to VMWare (at least for the time being.) It works, and we were able to get all of the dependencies and the proper version of Java (1.7) to run the project.

TESTS

Running org.opens.utils.contrastchecker.ContrastCheckerTest

getConstrastRatio

result :3.6102927852355164

Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.026 sec

Running org.opens.utils.colorconvertor.ColorConverterTest

getHue

java.awt.Color[r=128,g=128,b=127]

Hue : java.awt.Color[r=128,g=128,b=127]

Rgb2hexBlack

Rgb2hexWhite

Rgb2hexPink

Tests run: 4, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.008 sec

Results :

Tests run: 5, Failures: 0, Errors: 0, Skipped: 0

TESTS

Running org.opens.contrast.finder.api.AppTest

Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.017 sec

Running org.opens.colorfinder.AbstractColorFinderImplTest

findColorsWithValidContrastWithForegroundTested

findColorsWithInvalidContrastWithBackgroundTested

findColorsWithInvalidContrastWithForegroundTested

findColorsWithValidContrastWithBackgroundTested

Tests run: 4, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.058 sec

Results :

Tests run: 5, Failures: 0, Errors: 0, Skipped: 0

TESTS

Running org.opens.color.result.impl.AppTest

Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.02 sec

Results :

Tests run: 1, Failures: 0, Errors: 0, Skipped: 0

TESTS

Running org.opens.color.finder.hsv.ColorFinderHsvPsychoTest

FindColorsNearColor

11-09-2019 16:312957 0 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho -
SetBounderHue 15.0

11-09-2019 16:312963 6 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho -
findColors of ColorFinderHsvPsycho

11-09-2019 16:312964 7 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=165,b=0]

11-09-2019 16:313319 362 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=161,b=0]

11-09-2019 16:313444 487 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=157,b=0]

11-09-2019 16:313530 573 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=153,b=0]

11-09-2019 16:313579 622 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=149,b=0]

11-09-2019 16:313633 676 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=145,b=0]

11-09-2019 16:313671 714 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=141,b=0]

11-09-2019 16:313696 739 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=137,b=0]

11-09-2019 16:313712 755 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=133,b=0]

11-09-2019 16:313727 770 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=129,b=0]

11-09-2019 16:313742 785 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=125,b=0]

11-09-2019 16:313758 801 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=121,b=0]

11-09-2019 16:313774 817 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=117,b=0]

11-09-2019 16:313796 839 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=113,b=0]

11-09-2019 16:313812 855 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=109,b=0]
11-09-2019 16:313827 870 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=105,b=0]
11-09-2019 16:313842 885 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=165,b=0]
11-09-2019 16:313857 900 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=169,b=0]
11-09-2019 16:313872 915 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=173,b=0]
11-09-2019 16:313887 930 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=177,b=0]
11-09-2019 16:313902 945 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=181,b=0]
11-09-2019 16:313918 961 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=185,b=0]
11-09-2019 16:313933 976 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=189,b=0]
11-09-2019 16:313963 1006 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=193,b=0]
11-09-2019 16:313993 1036 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=197,b=0]
11-09-2019 16:31428 1071 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=201,b=0]
11-09-2019 16:31448 1091 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=205,b=0]
11-09-2019 16:31463 1106 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=209,b=0]
11-09-2019 16:31478 1121 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=213,b=0]
11-09-2019 16:31493 1136 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=217,b=0]
11-09-2019 16:314108 1151 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=221,b=0]
11-09-2019 16:314124 1167 INFO org.opens.color.finder.hsv.ColorFinderHsvPsycho - Change
Huejava.awt.Color[r=255,g=225,b=0]
11-09-2019 16:314140 1183 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest - 38
11-09-2019 16:314144 1187 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #CC8609
11-09-2019 16:314144 1187 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #C6891E
11-09-2019 16:314144 1187 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #C38A26

11-09-2019 16:314145 1188 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #D28300

11-09-2019 16:314145 1188 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #CC8615

11-09-2019 16:314145 1188 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #D2830C

11-09-2019 16:314145 1188 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #CC8621

11-09-2019 16:314146 1189 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #C98727

11-09-2019 16:314146 1189 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #C38A2B

11-09-2019 16:314146 1189 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #D58118

11-09-2019 16:314146 1189 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #CF8429

11-09-2019 16:314147 1190 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #C98730

11-09-2019 16:314147 1190 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #C68838

11-09-2019 16:314148 1191 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #D58124

11-09-2019 16:314148 1191 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #D87F21

11-09-2019 16:314148 1191 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #D87F24

11-09-2019 16:314148 1191 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #DB7E03

11-09-2019 16:314149 1192 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #D87F27

11-09-2019 16:314149 1192 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #D87F2A

11-09-2019 16:314149 1192 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #D28236

11-09-2019 16:314149 1192 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #DE7C06

11-09-2019 16:314150 1193 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #D87F2C

11-09-2019 16:314150 1193 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #D87F2F

11-09-2019 16:314150 1193 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest -
Color found #E47800

11-09-2019 16:314150 1193 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest - Color found #E17A09
11-09-2019 16:314151 1194 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest - Color found #DE7C12
11-09-2019 16:314151 1194 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest - Color found #E77603
11-09-2019 16:314151 1194 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest - Color found #E4780C
11-09-2019 16:314151 1194 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest - Color found #E17A15
11-09-2019 16:314152 1195 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest - Color found #EA7406
11-09-2019 16:314152 1195 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest - Color found #E7760F
11-09-2019 16:314152 1195 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest - Color found #E47818
11-09-2019 16:314153 1196 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest - Color found #DB7D2B
11-09-2019 16:314153 1196 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest - Color found #F36D00
11-09-2019 16:314153 1196 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest - Color found #F06F09
11-09-2019 16:314153 1196 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest - Color found #F66A00
11-09-2019 16:314154 1197 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest - Color found #C68912
11-09-2019 16:314154 1197 INFO org.opens.color.finder.hsv.ColorFinderHsvPsychoTest - Color found #C68906

Key

11-09-2019 16:314157 1200 INFO org.opens.color.finder.hsv.ColorFinderHsv - instantiation of ColorFinderHsv class

Tests run: 2, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 1.351 sec

Running org.opens.color.finder.hsv.ColorFinderHsvTest

FindColorsWithFgAndBg

11-09-2019 16:314173 1216 INFO org.opens.color.finder.hsv.ColorFinderHsv - instantiation of ColorFinderHsv class

11-09-2019 16:314173 1216 INFO org.opens.color.finder.hsv.ColorFinderHsv - Appel de findColors, couleurs : java.awt.Color[r=127,g=127,b=127]java.awt.Color[r=128,g=128,b=128]0
FindColorsWithFgAndBg2

11-09-2019 16:314184 1227 INFO org.opens.color.finder.hsv.ColorFinderHsv - instantiation of ColorFinderHsv class

11-09-2019 16:314184 1227 INFO org.opens.color.finder.hsv.ColorFinderHsv - Appel de findColors, couleurs : java.awt.Color[r=128,g=128,b=128]java.awt.Color[r=127,g=127,b=127]0

FindColorsBornBlack

11-09-2019 16:314196 1239 INFO org.opens.color.finder.hsv.ColorFinderHsv - instantiation of ColorFinderHsv class

11-09-2019 16:314196 1239 INFO org.opens.color.finder.hsv.ColorFinderHsv - Appel de findColors, couleurs : java.awt.Color[r=1,g=1,b=1]java.awt.Color[r=3,g=3,b=3]0

FindColorsBornBlack2

11-09-2019 16:314197 1240 INFO org.opens.color.finder.hsv.ColorFinderHsv - instantiation of ColorFinderHsv class

11-09-2019 16:314197 1240 INFO org.opens.color.finder.hsv.ColorFinderHsv - Appel de findColors, couleurs : java.awt.Color[r=3,g=3,b=3]java.awt.Color[r=1,g=1,b=1]0

FindColorsBornWhite

11-09-2019 16:314198 1241 INFO org.opens.color.finder.hsv.ColorFinderHsv - instantiation of ColorFinderHsv class

11-09-2019 16:314198 1241 INFO org.opens.color.finder.hsv.ColorFinderHsv - Appel de findColors, couleurs : java.awt.Color[r=254,g=254,b=254]java.awt.Color[r=255,g=255,b=255]0

FindColorsBornWhite2

11-09-2019 16:314205 1248 INFO org.opens.color.finder.hsv.ColorFinderHsv - instantiation of ColorFinderHsv class

11-09-2019 16:314205 1248 INFO org.opens.color.finder.hsv.ColorFinderHsv - Appel de findColors, couleurs : java.awt.Color[r=255,g=255,b=255]java.awt.Color[r=254,g=254,b=254]0

FindColorsGreenAlert

11-09-2019 16:314221 1264 INFO org.opens.color.finder.hsv.ColorFinderHsv - instantiation of ColorFinderHsv class

11-09-2019 16:314222 1265 INFO org.opens.color.finder.hsv.ColorFinderHsv - Appel de findColors, couleurs : java.awt.Color[r=70,g=136,b=71]java.awt.Color[r=223,g=240,b=216]0

FindColorsGreenAlert2

11-09-2019 16:314268 1311 INFO org.opens.color.finder.hsv.ColorFinderHsv - instantiation of ColorFinderHsv class

11-09-2019 16:314269 1312 INFO org.opens.color.finder.hsv.ColorFinderHsv - Appel de findColors, couleurs : java.awt.Color[r=223,g=240,b=216]java.awt.Color[r=70,g=136,b=71]0

FindColorsNearColor

11-09-2019 16:314288 1331 INFO org.opens.color.finder.hsv.ColorFinderHsv - instantiation of ColorFinderHsv class

11-09-2019 16:314288 1331 INFO org.opens.color.finder.hsv.ColorFinderHsv - Appel de findColors, couleurs : java.awt.Color[r=0,g=0,b=0]java.awt.Color[r=1,g=0,b=1]0

FindColorsNearColor2

11-09-2019 16:314296 1339 INFO org.opens.color.finder.hsv.ColorFinderHsv - instantiation of ColorFinderHsv class

11-09-2019 16:314297 1340 INFO org.opens.color.finder.hsv.ColorFinderHsv - Appel de findColors, couleurs : java.awt.Color[r=255,g=255,b=255]java.awt.Color[r=255,g=165,b=0]0

Key

11-09-2019 16:314318 1361 INFO org.opens.color.finder.hsv.ColorFinderHsv - instantiation of ColorFinderHsv class

Tests run: 11, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.147 sec

Running org.opens.color.finder.hsv.ColorFinderRgbTest

FindColorsNearColor

11-09-2019 16:315694 2737 INFO org.opens.color.finder.hsv.ColorFinderRgbTest - 0

Key

11-09-2019 16:315695 2738 INFO org.opens.color.finder.hsv.ColorFinderHsv - instantiation of ColorFinderHsv class

Tests run: 2, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 1.362 sec

Results :

Tests run: 15, Failures: 0, Errors: 0, Skipped: 0