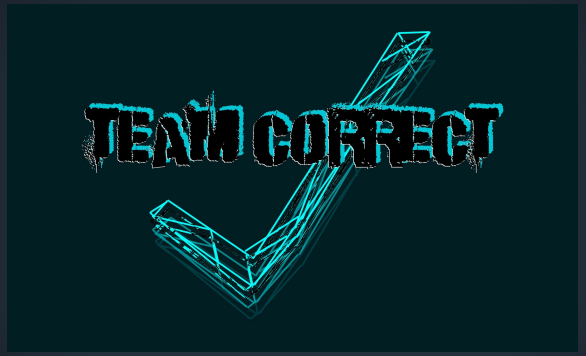


Team Correct

Project: Glucosio

Team Members: Alex Thropp, Hannah Posch, Daniel Baczmaga, Daniel Lee

Glucosio Project

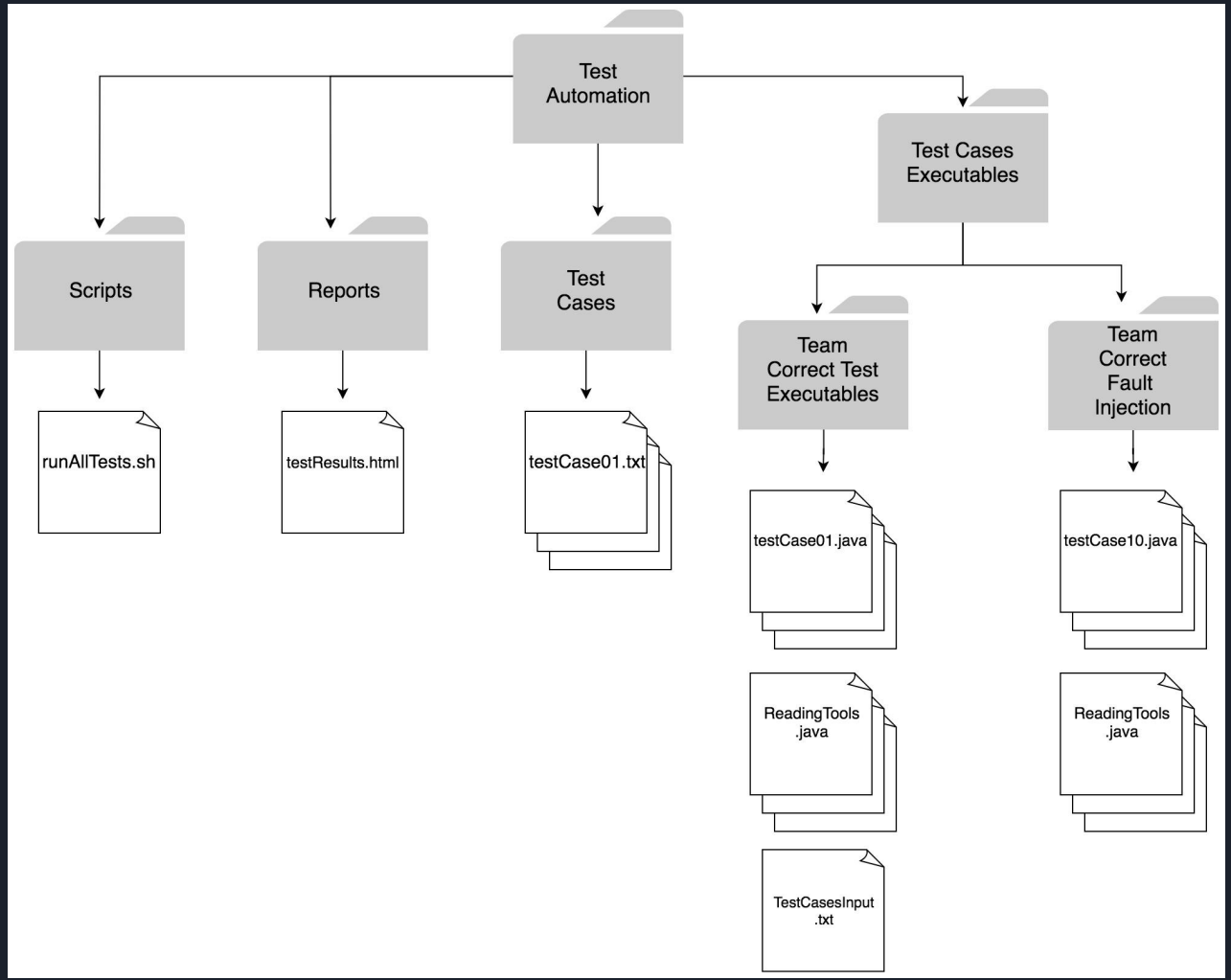
- Glucosio app allow users to record and manage their diabetes data
- Glucosio provides users with feedback and tips based on their data
- The app allows users to share their diabetes data anonymously with researchers
- The app remains user centered with a design that meets the needs of diabetic users

Lessons Learned

- BASH skills
- Automating Java compilation and execution, with dependent files
- Creating an input file that java could parse with flags to allow multiple test case use
- Communication
- Team delegation
- Management of a large open-source project

```
55 #Loop to run all of testCaseExecutables
56 cd testCasesExecutables
57
58 testAutomationPath=$PWD
59
60 cd org/glucosio/android/TeamCorrectTestExecutables
61 javac -classpath $testAutomationPath/joda-time-2.10.1.jar *.java
62
63
64 for file in *.class; do
65     if grep -q TestCase "$file"; then
66
67     report="$report <br /> <strong> ${file%.*} </strong><br />"
68
69
70     report="$report $(java -classpath $testAutomationPath:$testAutomationPath/joda-time-2.10.1.jar
           org.glucosio.android.TeamCorrectTestExecutables.${file%.*})"
71
```

Testing Framework



Passing Tests

1) setMetric - Reminder
2) glucoseToA1C Conversion - Glucose Converter
3) setReading - Ketone
4) setReading - Weight
5) minReading - Pressure
6) LDLReading - Cholesterol
7) Diabetes type - User
8) tipDescription - Action Tip
9) glucoseData - Glucose
10) hourToSpinnerType - ReadingTools
11) IsInRange - InputFilterMinMax
12) colorFromReading - GlucoseRanges
13) generateRandomNumber - GlucosioNotificationManager

Passing Tests

14) maxReading - Pressure
15) setID - Pressure
16) reading - HB1AC Reading
17) reading - Glucose
18) setMonth - A1cEstimate
19) glucoseToMmolL - GlucosioConverter
20) parseReading - ReadingTools
21) reading/setCreated - DoubleGraphObject
22) reading/setCreated - InGraphObject
23) dateFormat - SplitDateTime
24) minimum/maximumFractionDigits - NumberFormatUtils
25) setPreferredUnitA1c - User

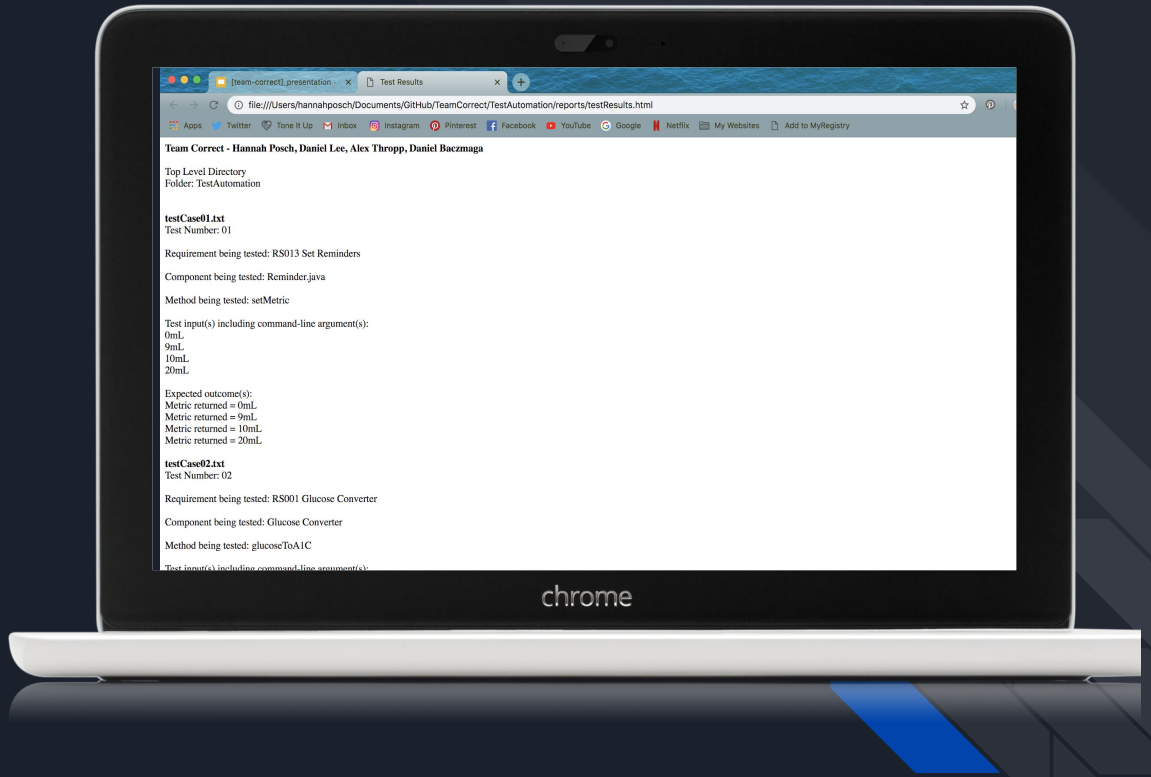
Fault Injection

1) Test Case 06 Fault Injection:
    a) File/Method: CholesterolReading.setLDLReading
    b) Fault: LDL Reading was changed to HDL Reading
        i) LDL Reading is not correctly set with input of 6.4
    c) Output: LDL reading set to 0.0
2) Test Case 10 Fault Injection:
    a) File/Method: ReadingTools.hourToSpinnerType
    b) Fault: changed hour>20 to hour<20
    c) Fault: changed hour>17 to hour<17
    d) Fault: changed hour>13 to hour<13
    e) Fault: changed hour>7 to hour<7
    f) Fault: changed hour>4 to hour<4
        i) Logic is now incorrect for the expression
    g) Output:
        i) Hour: 24, SpinnerType: 8, Time of day: night
        ii) Hour: 8, SpinnerType: 5, Time of day: after dinner
        iii) Hour: 4, SpinnerType: 5, Time of day: after dinner
        iv) Hour: 19, SpinnerType: 5, Time of day: after dinner

Fault Injection

3) Test Case 11 Fault Injection:
   a) File/Method: InputFilterMinMax.isInRange
   b) Fault: Changed operation signs in expression
      i) (Original: b > a ? c >= a && c <= b : c >= b && c <= a)
      ii) (Current: b < a ? c <= a && c >= b : c <= b && c >= a)
      iii) Logic is now incorrect.
   c) Output: Range Tester [12.0,1.5,8.2] = true
4) Test Case 14 Fault Injection:
   d) File/Method: PressureReading.setMaxReading
   e) Fault: Changed min to max and vice versa
      i) Incorrect value returned for set max
   f) Output: Max Reading returned = 0.0 Max Reading returned = 0.0
5) Test Case 20 Fault Injection:
   g) File/Method: ReadingTools.parseReading
   h) Fault: Set all returns to null.
      i) All values return as null.
   i) Output: str to number 6 = null

Demo


[team-correct]_presentation
Test Results
file:///Users/hannahposch/Documents/GitHub/TeamCorrect/TestAutomation/reports/testResults.html
Apps
Twitter
Tone It Up
Inbox
Instagram
Pinterest
Facebook
YouTube
Google
Netflix
My Websites
Add to MyRegistry
Team Correct - Hannah Posch, Daniel Lee, Alex Thropp, Daniel Baczmaga
Top Level Directory
Folder: TestAutomation
testCase01.txt
Test Number: 01
Requirement being tested: RS013 Set Reminders
Component being tested: Reminder.java
Method being tested: setMetric
Test input(s) including command-line argument(s):
0mL
9mL
10mL
20mL
Expected outcome(s):
Metric returned = 0mL
Metric returned = 9mL
Metric returned = 10mL
Metric returned = 20mL
testCase02.txt
Test Number: 02
Requirement being tested: RS001 Glucose Converter
Component being tested: Glucose Converter
Method being tested: glucoseToA1C
chrome

Questions