CSCI 3308 – Project Testing - Part 6
Due 04/02/15

Title: ICUEM

Vision: An application for people to actually be able to navigate the Engineering Center without too much hassle/confusion.

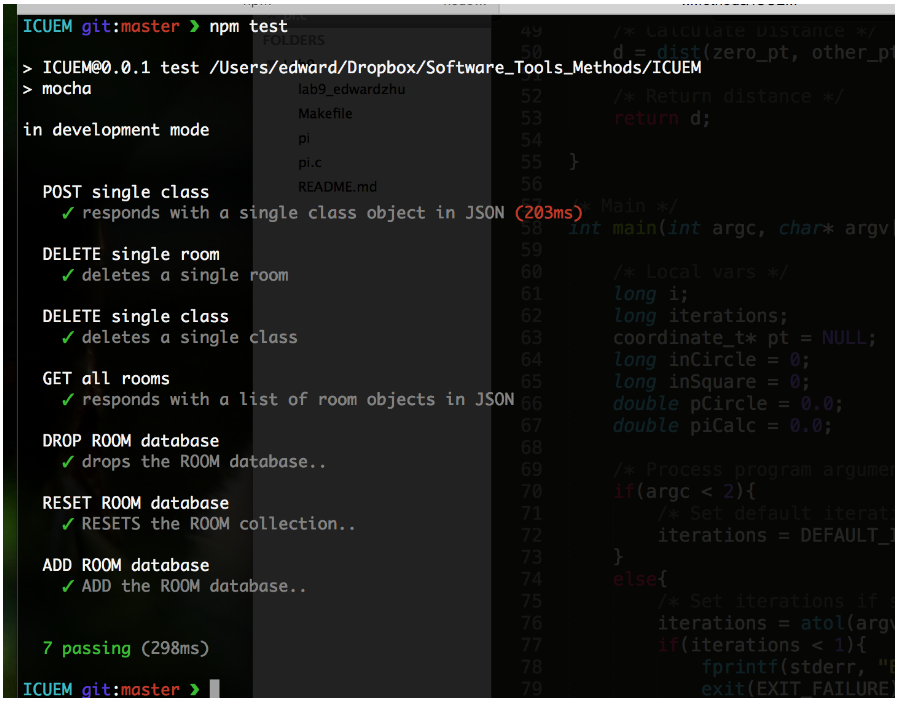
Who: Steven Tang, Edward Zhu, Andrew Arnopoulos, Brian Gaydon

VCS Link: https://github.com/zhued/ICUEM

Automated Unit Tests:
DATABASE
We tested out API calls to MongoLabs with an abundance of node modules. Specific test cases can be found here: https://github.com/zhued/ICUEM/blob/master/test/test.js. It essentially tests for GET and POST calls to our database.
To run the tests:

- Run ‘npm install’ - which will install all the node modules needed from within the package.json file
- Run ’npm start’ - to start the API server up
- Run ‘npm test’ - this will start the testing through mocha (node module)

Below is a screenshot of the output (all passing) of the tests.



```
ICUEM git:master ❯ npm test

> ICUEM@0.0.1 test /Users/edward/Dropbox/Software_Tools_Methods/ICUEM
> mocha

in development mode

  POST single class
    ✓ responds with a single class object in JSON (203ms)

  DELETE single room
    ✓ deletes a single room

  DELETE single class
    ✓ deletes a single class

  GET all rooms
    ✓ responds with a list of room objects in JSON

  DROP ROOM database
    ✓ drops the ROOM database..

  RESET ROOM database
    ✓ RESETS the ROOM collection..

  ADD ROOM database
    ✓ ADD the ROOM database..


  7 passing (298ms)

ICUEM git:master ❯
```

ANDROID

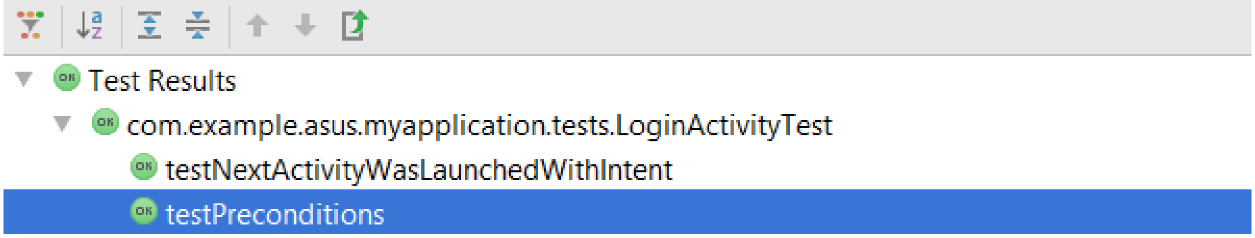
You can find the source code to the automated tests here: https://github.com/zhued/ICUEM/tree/master/android/MyApplication/app/src/androidTest/java/com/example/asus/myapplication/tests

The steps essentially emulate button presses and keyboard inputs to certain features within the app to check if the correct outputs are generated.

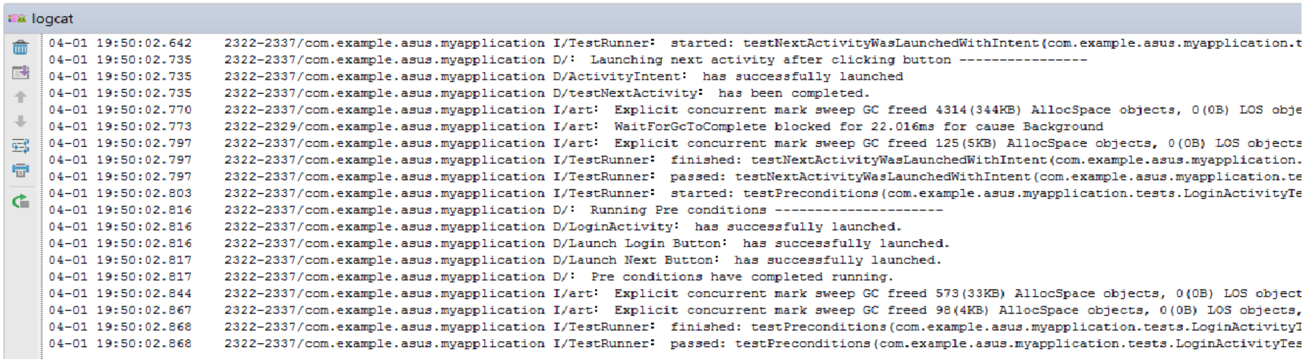
To run the tests through Android Studio:

1. Import project
2. Run -> Edit configurations
3. Add new configuration (if not there already) "Android Tests"
4. Make sure these fields are populated:
   Name: LoginActivityTest
   Module: app
   Test: class
   Class: com.example.asus.myapplication.tests.LoginActivityTest
   Before launch: Grade-aware Make
5. Set Log Level to Debug
6. Run and hope for results

Screenshots of the Passing Output:



- OK Test Results
  - OK com.example.asus.myapplication.tests.LoginActivityTest
    - OK testNextActivityWasLaunchedWithIntent
    - OK testPreconditions



```
04-01 19:50:02.642    2322-2337/com.example.asus.myapplication I/TestRunner:  started: testNextActivityWasLaunchedWithIntent(com.example.asus.myapplication.t
04-01 19:50:02.735    2322-2337/com.example.asus.myapplication D/:  Launching next activity after clicking button ----------------
04-01 19:50:02.735    2322-2337/com.example.asus.myapplication D/ActivityIntent:  has successfully launched
04-01 19:50:02.735    2322-2337/com.example.asus.myapplication D/testNextActivity:  has been completed.
04-01 19:50:02.770    2322-2337/com.example.asus.myapplication I/art:  Explicit concurrent mark sweep GC freed 4314(344KB) AllocSpace objects, 0(0B) LOS obje
04-01 19:50:02.773    2322-2329/com.example.asus.myapplication I/art:  WaitForGcToComplete blocked for 22.016ms for cause Background
04-01 19:50:02.797    2322-2337/com.example.asus.myapplication I/art:  Explicit concurrent mark sweep GC freed 125(5KB) AllocSpace objects, 0(0B) LOS objects
04-01 19:50:02.797    2322-2337/com.example.asus.myapplication I/TestRunner:  finished: testNextActivityWasLaunchedWithIntent(com.example.asus.myapplication.
04-01 19:50:02.797    2322-2337/com.example.asus.myapplication I/TestRunner:  passed: testNextActivityWasLaunchedWithIntent(com.example.asus.myapplication.te
04-01 19:50:02.803    2322-2337/com.example.asus.myapplication I/TestRunner:  started: testPreconditions(com.example.asus.myapplication.tests.LoginActivityTe
04-01 19:50:02.816    2322-2337/com.example.asus.myapplication D/:  Running Pre conditions ---------------------
04-01 19:50:02.816    2322-2337/com.example.asus.myapplication D/LoginActivity:  has successfully launched.
04-01 19:50:02.816    2322-2337/com.example.asus.myapplication D/Launch Login Button:  has successfully launched.
04-01 19:50:02.817    2322-2337/com.example.asus.myapplication D/Launch Next Button:  has successfully launched.
04-01 19:50:02.817    2322-2337/com.example.asus.myapplication D/:  Pre conditions have completed running.
04-01 19:50:02.844    2322-2337/com.example.asus.myapplication I/art:  Explicit concurrent mark sweep GC freed 573(33KB) AllocSpace objects, 0(0B) LOS object
04-01 19:50:02.867    2322-2337/com.example.asus.myapplication I/art:  Explicit concurrent mark sweep GC freed 98(4KB) AllocSpace objects, 0(0B) LOS objects,
04-01 19:50:02.868    2322-2337/com.example.asus.myapplication I/TestRunner:  finished: testPreconditions(com.example.asus.myapplication.tests.LoginActivityT
04-01 19:50:02.868    2322-2337/com.example.asus.myapplication I/TestRunner:  passed: testPreconditions(com.example.asus.myapplication.tests.LoginActivityTes
```

User Acceptance Test Plans:

Project Name: ICUEM	
Test Case Template	
Test Case ID: android_signup	Test Designed by: Brian Gaydon
Test Priority: med	Test Designed Date: 4/1/15
Module Name: Registration	Test Executed By: Annie Kelly
Test Title: Android Reg UI Test	Test Execution Date: 4/1/15
Description: Test intuitiveness of log-in page	

Pre-Condition: User wants to create an account	
Dependencies: Connection from registration page to DB	

Step	Test Steps	Test Data	Expected Result	Actual Result	Pass/Fail
1	Navigate to login page		Find and Press on App	Pressed on App	Pass
2	Tap ‘Register’				Pass
3	Enter username	akelly	Valid ID	Valid ID	Pass
4	Enter password	qwerty	Valid PW	Valid PW	Pass
5	Tap ‘Create Account’		Account created	Account created	Pass

Project Name: ICUEM	
Test Case Template	
Test Case ID: android_zoom	Test Designed by: Brian Gaydon
Test Priority: medium	Test Designed Date: 4/1/15
Module Name: Map	Test Executed By: Andy Kee
Test Title: Android Map Zoom Test	Test Execution Date: 4/1/15
Description: test zoom bar from within the floors of the building	

Pre-Condition: User is logged in to account	
Dependencies:	

Step	Test Steps	Test Data	Expected Result	Actual Result	Pass/Fail
1	Tap ‘map’		Taps ‘map’	Taps ‘map’	Pass
2	Zoom in		Taps +	Taps +	Pass
3	Zoom out		Taps -	Taps -	Pass

<table>
<tr><td colspan="6">Project Name: ICUEM</td></tr>
<tr><td colspan="6" align="center">Test Case Template</td></tr>
<tr><td colspan="3">Test Case ID: ios_signup</td><td colspan="3">Test Designed by: Brian Gaydon</td></tr>
<tr><td colspan="3">Test Priority: high</td><td colspan="3">Test Designed Date: 4/1/15</td></tr>
<tr><td colspan="3">Module Name: Registration</td><td colspan="3">Test Executed By: Bobby Pecheco</td></tr>
<tr><td colspan="3">Test Title: iOS Reg UI Test</td><td colspan="3">Test Execution Date: 4/1/15</td></tr>
<tr><td colspan="3">Description: test intuitiveness of registration page</td><td colspan="3"></td></tr>
<tr><td colspan="6" align="center">-----</td></tr>
<tr><td colspan="6">Pre-Condition: User wants to create an account</td></tr>
<tr><td colspan="6">Dependencies: DB Connection</td></tr>
<tr><td colspan="6" align="center">-----</td></tr>
<tr><td>Step</td><td>Test Steps</td><td>Test Data</td><td>Expected Result</td><td>Actual Result</td><td>Pass/Fail</td></tr>
<tr><td>1</td><td>Navigate to login page</td><td></td><td>Find and Press on App</td><td>Pressed on App</td><td>Pass</td></tr>
<tr><td>2</td><td>Tap ‘Register’</td><td></td><td></td><td></td><td>Pass</td></tr>
<tr><td>3</td><td>Enter username</td><td>cloburn</td><td>Valid ID</td><td>Valid ID</td><td>Pass</td></tr>
<tr><td>4</td><td>Enter password</td><td>password</td><td>Valid PW</td><td>Valid PW</td><td>Pass</td></tr>
<tr><td>5</td><td>Tap ‘Create Account’</td><td></td><td>Account created</td><td>Account created</td><td>Pass</td></tr>
</table>

<table>
<tr><td colspan="6">Project Name: ICUEM</td></tr>
<tr><td colspan="6">Test Case Template</td></tr>
<tr><td colspan="3">Test Case ID: ios_zoom</td><td colspan="3">Test Designed by: Brian Gaydon</td></tr>
<tr><td colspan="3">Test Priority: medium</td><td colspan="3">Test Designed Date: 4/1/15</td></tr>
<tr><td colspan="3">Module Name: Map</td><td colspan="3">Test Executed By: Nick Dondey</td></tr>
<tr><td colspan="3">Test Title: iOS Map Zoom Test</td><td colspan="3">Test Execution Date: 4/1/15</td></tr>
<tr><td colspan="3">Description: test iOS zoom on maps and also log out</td><td colspan="3"></td></tr>
<tr><td colspan="6">-----</td></tr>
<tr><td colspan="6">Pre-Condition: User is logged in to account</td></tr>
<tr><td colspan="6">Dependencies:</td></tr>
<tr><td colspan="6">-----</td></tr>
<tr><td>Step</td><td>Test Steps</td><td>Test Data</td><td>Expected Result</td><td>Actual Result</td><td>Pass/Fail</td></tr>
<tr><td>1</td><td>Tap ‘map’</td><td></td><td>Taps ‘map’</td><td>Taps ‘map’</td><td>Pass</td></tr>
<tr><td>2</td><td>Zoom in</td><td></td><td>Taps +</td><td>Taps +</td><td>Pass</td></tr>
<tr><td>3</td><td>Zoom out</td><td></td><td>Taps -</td><td>Taps -</td><td>Pass</td></tr>
<tr><td>4</td><td>Log out</td><td></td><td>Press logout icon</td><td>Struggles a little, but finds it quick</td><td>Pass</td></tr>
</table>

Test Case Template	
Test Case ID: mongo_connection_1	Test Designed by: Edward Zhu
Test Priority: high	Test Designed Date: 4/1/15
Module Name: MongoLab Setup	Test Executed By: Alex Campbell
Test Title: Verify functionality of MongoLab Connection	Test Execution Date: 4/1/15
Description: Test for POST and GET functionality from our MongoLabs database. If CU were to use our API to post data, this would be important	

Pre-Condition: User knows dev user credentials and API key, and understands our API	
Dependencies:	

Step	Test Steps	Test Data	Expected Result	Actual Result	Pass/Fail
1	Drop ROOM database		curl http://localhost:3000/room/drop	curl http://localhost:3000/room/drop	Pass
2	Add to ROOM database from file	data_room.json	curl http://localhost:3000/room/add	curl http://localhost:3000/room/add	Pass
3	Reset ROOM database	data_room.json	curl http://localhost:3000/room/reset	curl http://localhost:3000/room/reset	Pass
4	Delete Room 0002 from database		curl -X DELETE http://localhost:3000/room/delete/0002	curl -X DELETE http://localhost:3000/room/delete/0002	Pass