

Title: InPace

Vision: To change the way people exercise by providing both familiar and new statistics in a clear, concise format during and after exercise.

Who: Madison Rockwell, Sean Tranchetti, Hans Heidmann, Calvin Hicks

Automated Tests:

For our automated tests, we decided to use a simple Unit Testing framework, initially designed by a friend ours that was used to grade CSCI 1300 homeworks back in 2013. The reasons for choosing it were its ease of use and the nice, colorful output it produces that makes it very easy to tell what tests passed and what went wrong.

In order to use the framework, we created a separate file, included the necessary code we wanted to test, and wrote all of our tests using the functions the framework provides to do the testing. Once this is done, we simply compile this file and execute it. The screenshot below shows the output of some of these tests operating on our Database class file which creates and maintains SQLite databases.

```
Suite: Database Test
|
|   Test: New Table Creation
|   |   - create table query
|   |   - select from new table
|   |   - results array should be empty for empty table select query
|   |   - columns array should be empty for empty table select query
|   Passed.
|
|   Test: Insert/Select 1 row
|   |   - create table query
|   |   - insert into new table query
|   |   - select from table w/1 row
|   |   - results array should have 1 row
|   |   - results content
|   |   - columns array should have 2 entries
|   |   - column 1 name
|   |   - column 2 name
|   Passed.
|
Passed.
user@cu-cs-vm:~/Desktop/CS-3308-Project$
```

User Acceptance Tests:

Project Name: InPace						
Test Case ID: UT_1				Test Designed by: Calvin Hicks		
Test Priority (Low/Medium/High): Low				Test Designed date: 03/30/2015		
Module Name: Settings Page				Test Executed by: <Name>		
Test Title: Changing Units of recorded Routes from km to miles.				Test Execution date: <Date>		
Description: Test the Settings page						
Pre-condition: The user has downloaded app and has at least one route recorded						
Dependencies:						
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1.	Open the app		App should open and display the welcome page			
2.	Tap on the settings button		The app should display the settings page			
3.	Tap on Units slider to switch units from km to Miles.		The switch should move from the km side to the miles side.			
Post-conditions: The routes have been switched from being displayed and categorized in km to being displayed and categorized in miles.						

Project Name: InPace						
Test Case ID: UT_2				Test Designed by: Madison Rockwell and Hans Heidmann		
Test Priority (Low/Medium/High): High				Test Designed date: 03/30/2015		
Module Name: Wristband				Test Executed by: <Name>		
Test Title: Recording a Route				Test Execution date: <Date>		
Description: Using the wristband to log a route						
Pre-condition: User has a charged wristband and has downloaded the app						
Dependencies: Wristband						
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1.	Press button on wristband to begin logging GPS data		RGB LED blinks green (Go!) to indicate that data recording has begun			
2.	Start running or walking		The microSD card will record GPS data including the Lat, Lon, Alt, Time, etc			
3.	Press button on wristband again to stop logging GPS data		RGB LED blinks red (Stop!) to indicate that data logging has ended			
Post-conditions: The microSD card, which is connected to the Arduino and GPS module, has correctly saved a log of the GPS data from the users finished run or walk.						

Project Name: InPace						
Test Case ID: UT_3				Test Designed by: Hans Heidmann		
Test Priority (Low/Medium/High): High				Test Designed date: 03/30/2015		
Module Name: Wristband				Test Executed by: <Name>		
Test Title: Sending a route to app via bluetooth				Test Execution date: <Date>		
Description: Press button on wristband to transfer GPS data to mobile application						
Pre-condition: User has GPS data logged and has downloaded the mobile application, and has bluetooth turned on in their phone settings.						
Dependencies: Wristband and Mobile App						
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1.	Press bluetooth button on the wristband		Blue LED on wristband will turn on and wristband will be in sync mode			
2.	Sync wristband with phone in phone settings		Wristband and phone should be paired with bluetooth			
3.	Open App		App should open and display the Welcome page			
4.	Tap "Add Route" button		App should display the Add Route page			
5.	Tap "Sync Route" button in app		App should display the newly added Route data			
Post-conditions: GPS data was successfully transferred from microSD to mobile app via Bluetooth. The new route/s have been added to the routes in "My Routes".						

Project Name: InPace						
Test Case ID: UT_4				Test Designed by: Sean Tranchetti		
Test Priority (Low/Medium/High): High				Test Designed date: 03/30/2015		
Module Name: My Routes Page				Test Executed by: <Name>		
Test Title: Viewing Routes By Distance				Test Execution date: <Date>		
Description: Test the My Routes Page and content						
Pre-condition: User needs to have logged and synced at least one run/walk						
Dependencies:						
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1.	Open app		App should open and display the Welcome page			
2.	Tap the "My Routes" button		The "My Routes" page will now be displayed. All the distances run should be displayed as a button			
3.	Tap the button of the distance you would like to view.		The app will display a page with a list of runs of that distance, ordered by time or date.			
Post-conditions: The user can view a list of their previous runs categorized by distance.						

Project Name: InPace						
Test Case ID: UT_5				Test Designed by: Madison Rockwell		
Test Priority (Low/Medium/High): Medium				Test Designed date: 03/30/2015		
Module Name: Favorite Route				Test Executed by: <Name>		
Test Title: Changing Your Favorite Route				Test Execution date: <Date>		
Description: Using the app to set the user's favorite route						
Pre-condition: User must have ran/walked at least one route and transferred the data to mobile app						
Dependencies:						
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1.	Open App		App should open and display the Welcome page			
2.	Tap the "Set Favorite" button		App should display a page with a list of all runs, listed in order of Distance			
3.	Scroll through and tap the run you want as your favorite.		App should display a pop up window asking if you want to set this run as your favorite (Yes/No)			
4.	Tap "Yes"		App should change your favorite run to this selected run.			
Post-conditions: The welcome page will now display the selected run as your favorite route.						