

Rebecca's Unit Test Report  
Run And Track  
Running Man  
07/22/2019

**Timer**

1. Check if the timer is counting the seconds correctly
  - a. Run the RunAndTrack app
  - b. Click on the 'Run' button on the home page of the app
  - c. Click the 'Start' button of the app simultaneously with a timer found on google
  - d. Compare the time between the two.
    - i. Do they run at the same pace?
    - ii. Does the timer of our app crash?
2. Check if timer pause when the 'Pause' button is pressed
  - a. Click the 'Start' button in the Running Mode page
  - b. After running an amount of time. Press 'Pause'
    - i. Redo this step but pause at random times
3. Check if timer ends when the 'End' button is pressed
  - a. Click the 'Start' button in the Running Mode page
  - b. After running an amount of time. Press 'End'
    - i. Redo this step but end at random times. Go to Step 3c after each end.
    - ii. Does it redirect you to the Running Record page?
  - c. Go back to the main page and check if the timer was reset.

**Calories**

1. Replace the variable, distance, with a fixed number in the code. See Step 4c to know which line.
2. Then install the APK. Run the app.
3. Enter your weight in the Profile page since the calculation is dependent on it.
4. The formula used to calculate calories:
  - a.  $\text{hours} = \text{time} / 3600.0;$
  - b.  $\text{minutes} = \text{time} / 60.0;$
  - c.  $\text{meters} = \text{distance} * 1000.0;$
  - d.  $\text{speed} = \text{minutes} / (\text{meters} / 400.0);$
  - e.  $\text{Running calories (kcal)} = \text{weight (kg)} \times \text{exercise time (hours)} \times 30 \div \text{speed (minutes/400 meters)}$
5. Press the 'Start' button in Running Mode page. After a certain amount of time, pause the timer and note down the time. Then press the 'End' button.
6. Compare the calories shown in the app with the result I calculated manually with the given formula.

7. Redo Step 3 to 7 a few more time with a different weight.
8. Then remove the fixture for distance.

### **Pass running data from the Running Mode to the Running Record page**

1. Press the 'Start' button in the Running Mode page.
2. After running a while, press the 'Pause' button.
3. Note down the running data for this run. Then press the 'End' button.
4. Check if the data you note down is the same as the data in the Running Record page.
5. Repeat a couple of time.

### **Map Implementation**

1. Download the Run and Track app to an Android phone.
  - a. The test for this function is performed with a GPS JoyStick app that can be found in Google Play Services.
  - b. GPS JoyStick app can overwrite my realtime location and has a "JoyStick" option which makes it easy to change my mock location instantly.
2. When you enter the Running Mode page, press the 'My Location' button at the top right corner of the map.
  - a. Verify the current location in the Run and Track app.
  - b. Create a new mock location in the GPS JoyStick app.
  - c. Then press the 'My Location' button again.
  - d. Check if the current location gets updated when you move the JoyStick without pressing the 'Start' button.
  - e. Repeat the steps in Step 2a to 2e a few more time.
3. Press the 'Start' button. Check the following in the Run and Track app:
  - a. Is there a marker on the current location?
  - b. Does the marker placement get updated when the (mock) location changes?
    - i. Have to move the JoyStick to change mock location.
4. Press the 'Pause' button.
  - a. Change the (mock) location with the JoyStick from the GPSJoystick app.
  - b. Check if the marker stops being updated in the Run and Track app.
  - c. Check if the marker gets updated to where you move the mock location when the 'Start' button is being pressed on.
5. Press the 'End' button after redoing Step 4 at random moments for a run.
6. Go back to the main page and check if the map is at their default state when you re-enter the Running Mode page.