

Test Cases

SleepFighter

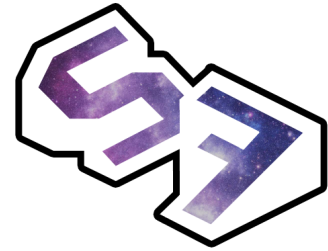


Table of Contents

1. Add alarm
2. RotoSnake Challenge
3. Emergency stop
4. Snooze
5. Vibration
6. Ringtone
7. Default Alarm
8. Remove alarm
9. Fluid Snake Challenge
10. Math Challenge (Both simple and hard)
11. Memory Challenge
12. Shake Challenge
13. Test Challenge
14. Speech
15. Location Filter

Add alarm

Test ID

T01

Test case description

Adding a new Alarm and entering custom time and name.

Precondition

User is at the alarm list (MainActivity)

Postcondition

A new alarm should be shown in the UI and persistently stored in the database.

Test steps

1. Click plus icon in Action bar (menu button + add in api < 11)
2. An alarm is added to the last of alarms.
3. Tap the alarm.
4. A detailed settings activity for the new alarm is shown
5. Click the "Time" property.
6. Standard time picker is shown to user
7. The user picks a time and presses ok
8. User is back at alarm properties
9. The new time picked can be seen in the property summary
10. User goes back

Expected result

- The time and name seen in the list matches what was entered when it was created

RotoSnake Challenge

Test ID

T02

Test case description

Performing and clearing the RotoSnake Challenge.

Precondition

The user has arrived at the RotoSnake Challenge.

Postcondition

The user is no longer at the RotoSnake Challenge.

Test steps

Variation 1.

1. Rotate the device around its “z-axis” (an axis going through it from front/screen side to back) to control the “snake”.
2. Capture a set number of “food” items (3 by default).

Variation 2.

1. Rotate the device around its “z-axis” (an axis going through it from front/screen side to back) to control the “snake”.
2. To “fail” the challenge and try again: Collide with boundary of “game board”.

Expected result

- The “snake” always moves “away” from the user/skyward, following the rotation of the device. The screen itself never reorients itself after the initial setup (the challenge is played in landscape orientation) during the challenge.
- Variation 1: The user is returned to the alarm list view (main activity) and the alarm that rang is turned off.
Variation 2: The challenge resets and the user gets a new chance to clear the challenge.

Emergency stop

Test ID

T03

Test case description

Stopping an alarm completely, not only snoozing it.

Precondition

An alarm is ringing and the alarm screen with its usual options is visible to the user.

For variation 1: Challenges are locally or globally disabled.

For variation 2: Challenges are enabled

Postcondition

No alarm is ringing, the main screen is visible and, if challenges are enabled, a number of points have been deducted from the user's total.

Test steps

Variation 1.

1. Click on list button in upper right corner of screen.
2. Select option "Emergency stop".
3. Select "Yes" in the dialog box.

Variation 2.

1. Click on list button in upper right corner of screen.
2. Select option "Emergency stop".
3. Select "Yes" in the dialog box.

Expected result

- The user is returned to the main screen.
- Variation 1: No points are deducted because challenges are locally or globally disabled.
Variation 2: A set amount of points is deducted because challenges are locally or globally disabled.

Snooze

Test ID

T04

Test case description

Using the snooze function to postpone an alarm.

Precondition

An alarm is ringing and the alarm screen with its usual options is visible to the user.

Postcondition

No alarm is ringing, the main screen is visible and, if challenges are enabled, a number of points have been deducted from the user's total. The alarm that just rang will ring again in a set period of time.

Test steps

Variation 1.

1. Click on the snooze button.

Variation 2.

1. Click on the snooze button.

Expected result

- The user is returned to the main screen.
- Variation 1: No points are deducted because challenges are locally or globally disabled.
Variation 2: A set amount of points is deducted because challenges are locally or globally disabled.
- The alarm rings again within a period of time that is adjustable by the user.

Vibration

Test ID

T05

Test case description

Use the alarm “vibration” setting

Precondition

An alarm is ringing, and the vibration setting is enabled.

Postcondition

The device doesn't vibrate

Test steps

Variation 1:

1. The vibration starts
2. The user starts the challenge

Variation 2:

1. The vibration starts
2. Challenges not enabled, so return to the alarm list when the alarm is turned of.

Expected result

- Once the challenge begins, the vibration stops. If challenges are not enabled, then the vibration stops as soon as you return to the menu.

Ringtone

Test ID

T06

Test case description

Test alarm ringtones.

Precondition

We have an alarm with a ringtone, and that alarm goes off.

Postcondition

Ringtone is no longer ringing.

Test steps

Variation 1:

1. The ringtone starts
2. The user starts the challenge and then complete it

Variation 2:

3. The ringtone starts
4. Challenges not enabled, so return to the alarm list when the alarm is turned of.

Expected result

Variation 1:

once the challenge is over, the ringtone is turned off.

Variation 2:

once the alarm has been turned off, the ringtone is turned off.

Default Alarm

Test ID

T07

Test case description

Test the default alarm.

Precondition

N/A

Postcondition

Test steps

1. Go to the default alarm in the global settings
2. Change some properties, any properties
3. Return to the alarm list
4. Create a new alarm

Expected result

4. The settings of the new alarm and the settings of the default alarm should be identical.

Remove alarm

Test ID

T08

Test case description

Removing an Alarm.

Precondition

User is at the alarm list (MainActivity)

Postcondition

The deleted alarm is removed from the database and no longer visible in the alarm list and, if it was activated before deletion, will no longer ring.

Test steps

Variation 1.

- Press and hold on the alarm to delete.
- Select "Delete alarm" option in the menu that pops up.
- Confirm in the dialog view that pops up.

Variation 2.

- Enter the detailed view of the alarm to delete.
- Press the list button in the upper right corner.

Expected result

- Selected alarm is removed from list of alarms and thus no longer visible.
- Variation 1: User stays at main menu view.
Variation 2: User is returned to main menu view.

Fluid Snake Challenge

Test ID

T09

Test case description

Performing and clearing the Fluid Snake Challenge.

Precondition

The user has arrived at the Fluid Snake Challenge.

Postcondition

The user is no longer at the Fluid Snake Challenge.

Test steps

1. Touch anywhere on the screen to move the snake
2. Collide with a wall/self to fail and restart the game
3. Make the snake collide with itself to fail and restart the game
4. Travel over all of the fruits to eat them
5. Travel through the exit in order to win

Expected result

- Step 1: The Snake Travels in the direction of which the user last touched in comparison to the Snake's position
- Step 2 & 3: Once the Snake gets too far into a wall or a segment of itself the game should restart (meaning the Snake's position should reset, the Snake should not be moving, all 3 fruits should reappear and the exit should not be visible)
- Step 4: The fruits disappear when the snake reaches them
- Step 4: The exit should appear once there are no fruits left
- Step 5: The Fluid Snake Challenge should shut down when the whole Snake has travelled through the exit

Math Challenge (Both simple and hard)

Test ID

T10

Test case description

Performing and clearing the Math Challenge.

Precondition

The user has arrived at the Math Challenge.

Postcondition

The user is no longer at the Math Challenge.

Test steps

1. Rotate the screen to change orientation to check if the math problem remains the same
2. Try any number that does not have the same absolute value as the answer to see if it fails
3. Try the answer multiplied by -1 to see if it fails
4. Try the correct answer

Expected result

- Step 1: The math problem should remain the same as before
- Step 2 & 3: You should receive a new math problem
- Step 4: The challenge should be completed and you should get sent out of the view

Memory Challenge

Test ID

T11

Test case description

Performing and clearing the Memory Challenge.

Precondition

The user has arrived at the Memory Challenge.

Postcondition

The user is no longer at the Memory Challenge

Test steps

1. Tap a square
2. Tap the same square
3. Rotate the screen
4. Tap squares until one pair of letters is found
5. Rotate the screen
6. Tap new squares until all pairs are found

Expected result

- When a square is pressed, a letter appears on it, and it stays visible and in the same location even when the screen is rotated. Nothing happens when you tap the same square multiple times.
- If a pair of letters is found, the two containing squares disappear from the screen and the location of the void left behind is constant, even if the screen is rotated.
- When all pairs have been found, the challenge ends and the user is returned to the previous view.

Shake Challenge

Test ID

T12

Test case description

Performing and clearing the Shake Challenge.

Precondition

The user arrived at the Shake Challenge.

Postcondition

The user is no longer at the Sort Challenge

Test steps

1. Rotate the screen
2. Shake some
3. Rotate screen
4. Shake until the bar has been filled

Expected result

- Rotation does not affect the state of the challenge.
- As you shake the device the bar gets filled
- Once the bar is filled the challenge is over

Test Challenge

Test ID

T13

Test case description

Tests to see if the logic that is not challenge-specific works.

Precondition

The user presses "Test" in the challenge settings and chooses a challenge, or a challenge is generated when the user presses the "Stop the madness" button when an alarm goes off.

Postcondition

When the challenge is cleared the user should be returned to either the MainActivity (if the user had entered the challenge from the "Stop the madness" button) or to the Challenge Settings (if the user entered the challenge from the "Test" button).

Test steps

1. Fail the challenge
2. Clear the challenge

Expected result

- Step 1: The challenge should restart
- Step 2: The user should get sent back to either the Challenge Settings or the MainActivity
- Step 2: If this was started from an alarm the user should receive 5 Challenge Points if this is the first time in 6 hours the user completed a challenge

Speech

Test ID

T14

Test case description

Test the speech feature. The speech feature reads out the current time and weather using the text to speech feature of android.

Precondition

We have an alarm with the speech setting on, and it is now ringing.

Postcondition

Speech has now stopped.

Test steps

Variation 1(no ringtone):

1. Speech starts as soon as the alarm goes off, and reads out the current weather and time
2. Once it has read out this, it stops.

Variation 2(with ringtone):

- 1 Speech starts as soon as the alarm goes off, and reads out the current weather and time.
2. The ringtone also starts at the same time, at a lower volume, so that the speech can be heard
3. Once the speech is over, the ringtone volume faded in, until it reaches its specified volume(as set by the user in the settings)

Expected result

If the alarm is turned off while the speech is still being read out, the speech stops anyways.
If the current device has no internet connection, only the time will be read out, not the weather.

Location Filter

Test ID

T15

Test case description

Test the Location Filter feature. The feature lets you tap polygons and EXCLUDE or INCLUDE areas where the alarm won't and only will ring respectively.

Precondition

You have very recently (~5 min ago) pressed the "my-location" button on google maps view in the app.

You have created an area A that has flag EXCLUDE that contains your current location. A is enabled.

You have created an area B that has flag EXCLUDE that doesn't contain your current location. B is disabled.

You have made an alarm set to ring 1 minute from NOW.

Postcondition

N/A, see Expected result.

Test steps

Start alarm means that alarm gets invoked. If you have debug build you can invoke alarm via debug option.

The test steps require that you don't move around (less than 50m is okay).

- #1 Start alarm.
- #2 Verify that alarm did not ring.
- #3 Disable A, Enable B.
- #4 Start alarm.
- #5 Verify that alarm did ring.
- #6 Set A to INCLUDE, Set B to Include.
- #7 Start alarm.
- #8 Verify that alarm didn't ring.
- #9 Disable B, Enable A.
- #10 Start alarm.
- #11 Verify that alarm did ring.

Expected result

#2, #5, #8, #11 were all verified.