Unit Test Documentation

Testing Approach: Manual and using print statements.
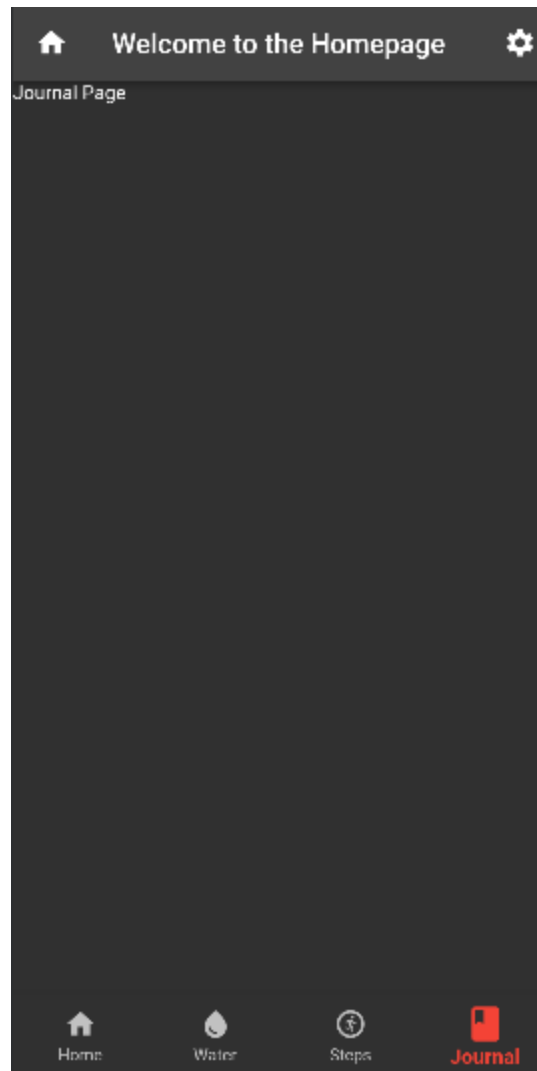
Sprint 1:

Daniel Perez (PO)
Testing instructions:
Step 1. Open up the MicroMe app.
Step 2. In the main menu, click on the 'Journal' icon in the bottom right corner.
Step 3. This function will work properly if the text "Journal Page" is displayed in the top left of the body of the page.

Kimi Holsapple (User story 1 : task 4)

Loaded the app using Android Studio and Xcode, tapped the buttons to check if they displayed the correct information. Each page to be loaded should have corresponding text "journal", "water", "steps".

Devin Gaughan

Loaded App and tapped the new placed buttons on the main page. Was checking for responsiveness. Tested this with a sideloaded version of the app.

Angela Nguyen (User Story 1: Task 2)

Created an assets folder and icons show when uploaded to the app. Icons still exist when the app is closed in an emulator for the app.

Niko Vanden Heuvel
- User Story 1 - Task 5 - The navigation bar should be permanent if you are on any of the given pages. Tapping any of the displayed icons should display sample text that maps to the icon in question. Upon tapping the icon you want and getting directed to the proper page, the icon should highlight and grow slightly in size, showing a distinct difference from the other icons. Switching between all four icons should be possible and one should remain on the same page they previously tapped, even if they exit the app. The homepage should be the default page upon opening the app for the first time or reloading the app.
- User Story 2/3/4/5 - The navigation bar should direct one to a page designated for each of the four features, with the app bar displaying a title to match the page that you navigated towards. When you navigate to each page, the body text of the phone should change in response to the navbar item being selected. The app bar title should also change to reflect what page the person is on. Instead of opening an entirely different page, only the body text of the app should change, allowing one to display multiple different pages without the need for full page routes. The one exception to this rule would be the settings page, which should open in its own page and have its own arrow in the app bar that allows you to navigate back to the central homepage.

Sprint 2:

Daniel Perez and Angela Nguyen

User Story 3 - Task 3/User Story 4 - Task 2
Implement a new page with the ability to input text and create a save button

In order to test this, open the app and navigate to the journal page using the bottom navigation bar. From there, tap on the floating action button on the bottom. This should take you to a new editing page where the title and description of a journal entry can be changed. Finally, to save

the entry, press the save button at the top left. The test is successful if the journal page now reflects the entry just created.

User Story 3 - Task 4

In order to test this, open the app and navigate to the journal page using the bottom navigation bar. From there create a new entry using the floating action button or select an entry that already exists. If selecting an entry that already exists, the test is successful if a new page is opened which shows the details of the entry. If the entry was just created, navigate back to the entries page and tap on the card of the newly created entry. The test is successful if a new page with the details of the entry are displayed.

In order to test this, open the app and navigate to the journal page using the bottom navigation bar. From there create a new entry using the floating action button or select an entry that already exists. At the top right, tap on the garbage icon to delete the entry. This test is successful if the note is no longer present in the entries page.

Kimi Holsapple (user story 1 - task 1,2,3)
Ensure the water page works when clicked on and displays proper UI content. Button to add water should appear and be interactable. Changes should be reflected on the screen. Goal button should be interactable and changes reflected on the screen. Pie chart should appear and respond to changing values, recalculating after every new addition.

Devin Gaughan (User story 2 Task 1, 2 3)
To Test Pedometer package, I had Product Owner Daniel Perez sideload the application and test the steps live. This method was used to test the other task as well.

Niko Vanden Heuvel:
- User Story 5 - Task 1 - Open the app and tap the settings icon in the top right. A new page should open with a back button in the top right that should return the user to the page that they entered the settings page from. The settings page should have a sample settings section with a single button tile and a single switch tile. The switch should have a functioning toggle
- User Story 5 - Task 2 - Open the system settings page of your phone. User should set their system-wide theme to either light or dark. The theme of the app should change to match whatever the system theme was. All portions of the app should match the theme specified.
- User Story 5 - Task 3 - User should be able to press a button that prevents notifications from being sent from the app. If the user attempts to create a scheduled notification while the cancel is active, no notification should be sent.
- User Story 5 - Task 4 - The user should be able to open the settings page and view two methods of sending notifications. Upon either pressing the button with a mushroom as its icon or toggling the visible switch to the off position, a notification should be sent shortly

after. The user should be able to see the notification with sample text if they do not have the app in the foreground.

Sprint 3:

Daniel Perez

- User Story 2, Task 2 : To ensure that the UI will adapt to either theme, change the phone to both themes and ensure that aspects (such as text colors) will properly adapt. There should also now be the capability to view a tiny blurb for each entry within the journal.

Kimi Holsapple
- User story 4, Task 1,2 : Ensure that water stats on the homepage are connected to the water page and reflect changes when opening the homepage.

Devin Gaughan
- User Story 3 Task 1: Sideload app and test the reset button for steps. Use an emulator to set and store steps.

Angela Nguyen
- User Story 1, Task 1,2 : Water addition to database testing will occur in Sprint 4 User Story 4 Task 1
- User Story 3, Task 2: Steps addition to database testing will occur in Sprint 4 User Story 4 Task 2

Niko Vanden Heuvel
- User Story 1 - Task 3 - Followed the process for creating a new water entry by navigating to the water page and tapping the floating action button. The keyboard pop-up should be a keypad, like when entering a phone number, to prevent anything but numbers from being entered. All other characters and punctuation should not be included.
- User Story 4 - Task 3 - When moving to each of the four pages displayed, using the bottom navigation bar, the app bar title at the top should change to match whatever is being displayed in the body of the page. This change to the title should persist upon an app reload and the title should be able to change upon multiple consecutive changes of the index of the bottom navigation bar.
- User Story 4 - Task 4 - When opening the app for the first time, the homepage should display a tile with a quote. The author's name should be in bold and the subtitle of the tile should be the quote body. Upon reloading the app, a new quote should appear. If no author is given for a particular quote, it should say that the author is unknown. Navigating to another page and returning to the homepage should not adjust the quote. The quote will change upon every app reload.

Sprint 4:

Daniel Perez
- US3 task 1
    - Ensure that the steps can be reset. This can be checked by going to the steps page and pressing the reset button. The test will pass if the value is 0 after switching to a different page and returning to the steps page.

Kimi Holsapple
- US4 task 1
    - Ensure the charts update correctly when inputting new values on other pages. This is done by noting the bar entry for the homepage and hovering over to see what number is shown. Example: 24 is displayed. Then move to the water page and enter a new entry. Example: we add 5 oz to the water total for that day. Move back to the homepage and make sure that the most recent bar entry was updated. Example 24 + 5 is 29 so the bar size should change and when hovering over it shows 29.
- US2 task 2
    - When loading the app and changing new values on water_page.dart ensure "oz "shows and not "ml".
- US4 task 2
    - When loading homescreen lifetime statistics for all three pages (water, steps, and journal) should display on the homepage. This is tested by scrolling to where they are displayed at the bottom of the page. Noting the counts for each entry. For example, if the total water is 7420 oz, going to the water page and adding 10 to your daily total and then moving back to the homepage should show that the lifetime total for water has been updated to 7430 oz. The same effect should be seen for both the total number of entries created and the total steps.

Devin Gaughan

- US3 Task 2
    - Checked if steps converted to percentile by having Daniel sideload and update the steps.
- US3 Task 3
    - Sideload it on an android device and then test the visualization.

Angela Nguyen
- US4 Task 1: When adding water in the chart, the table doesn't update unless you move to a separate page and give it time to update. Adding a negative number isn't possible due to the keypad that shows up. Switching pages shows the change and the homepage statistics update according to the amount added. Adding a number that's too large wouldn't be added to the database. The same occurs with changing goals.
- US4 Task 2: The steps haven't been connected to the database but the functions do exist. Since no step object is created and added to the steps table, the function that returns the total sum of steps on the homepage returns 0.

- US1 Task 2 and US5 Task 1: Adding the new drawings to assets folder and the pubspec.yaml and then tests whether the icon changes (which it does) when opening the app and for each page the icon is correct for each part.

Niko Vanden Heuvel
- User Story 1 - Task 1 - When tapping the icon in the top right of the screen, instead of the settings page skeleton that was displayed previously, a formatted "About Us" section should display, with a prominent icon and build number at the top, followed by multiple tiles that display information about the app. Each tile should navigate to its own separate page that displays a markdown file within it.
- User Story 1 - Task 3 - The list tiles that are selectable within the "About Us" section should, when tapped, display a markdown-formatted text file. Each tile should have its own text and should take up the majority of the screen. The one remaining piece from the central hub should be the app bar, with an arrow in the top right allowing for one to return to the main "About Us" Page.
- User Story 5 - Task 2 - When the user opens the app, the top AppBar should be in a color pleasing to the eye that displays a nice contrasting color between the background of the appbar and the text/icons within. The same should be true of the bottom navigation bar. The background should, in both light and dark mode, be consistent regardless of the page you are on and should display a simple color scheme with as little complexity as possible.
- User Story 5 - Task 3 - When navigating throughout the app, the primary color swatch, whether in dark mode or light mode, should be persistent throughout the app. The text, button colors, progress indicators, and any other widget should be in a consistent color, whether that be a single color or color pattern.