

# Test Plan and Report

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## **– Login and Signup Tests –**

### **Scenario 1: Create Account (Pass/Fail)**

1. Go to [hydrotag.vercel.app](https://hydrotag.vercel.app)
2. Click "log out" if already logged in
3. click "Create a Hydrotag account".
4. Fill in: (Note that the system doesn't allow multiple accounts with the same email, so you will randomly generate part of the email address each time the test is run).  
Email address: testing<4 random digits>@test.com  
Username: Test<digits>  
Password: test123  
Confirm Password: test123
5. Click "Submit"
6. User should be the main app, logged in as the new user.

### **Scenario 2: Create Account, Invalid Parameters (Pass/Fail)**

1. Try do the above, except:
  - a. Use the email "[testing@test.com](mailto:testing@test.com)", which is already associated with an account
  - b. Enter a password with letters only
  - c. Enter a password with 3 characters
  - d. Enter a value in "Confirm Password" which doesn't match the password
2. In all of the cases, the account shouldn't be created, and a visible warning describing what went wrong should be displayed.

### **Scenario 3: Log in (Pass/Fail)**

1. Go to [hydrotag.vercel.app](https://hydrotag.vercel.app)
2. Click "log out" if already logged in
3. Login with email "[testing@test.com](mailto:testing@test.com)", password "test123".
4. User should be the main app, logged in as "Protagonist". Further tests may start from this point.

### **Scenario 4: Log in, Invalid Account (Pass/Fail)**

1. Go to [hydrotag.vercel.app](https://hydrotag.vercel.app)

2. Click "log out" if already logged in
  - a. Try to login with email "[testing@test.com](mailto:testing@test.com)", password "test1234".
  - b. Try to login with email "<eight random characters>[@test.com](mailto:@test.com)", password "test123"
3. User should not be logged in in either case.

### – Map Tests –

#### **Scenario 5:** Map and Centering (Pass/Fail)

1. Go to [hydrotag.vercel.app](https://hydrotag.vercel.app) and log in as "Protagonist". Give the browser permission to share the location.
2. The user should see the Google Map, centered around the current location. Moving around the map and pressing "Center Map", they should return to this location.

#### **Scenario 6:** Filtering Markers (Pass/Fail)

1. Go to [hydrotag.vercel.app](https://hydrotag.vercel.app) and log in as "Protagonist". Go to UC Santa Cruz, since that's where most existing markers are.
2. "Protagonist" should be following some, but not all, other users. If required, go to the "Add Users" tab and verify this.
3. Click the "Markers from Following" switch; some markers should disappear. Click the switch again, and they should reappear.

#### **Scenario 6:** Filtering Reviews (Pass/Fail)

1. Go to [hydrotag.vercel.app](https://hydrotag.vercel.app) and log in as "Protagonist". Go to UC Santa Cruz, since that's where most existing markers are.
2. "Protagonist" should be following some, but not all, other users. If required, go to the "Add Users" tab and verify this.
3. Click on a Marker with a review from someone Protagonist doesn't follow. Click the "Reviews from Following" switch, and the review should disappear. Click the switch again, and it should reappear.

#### **Scenario 7:** Adding Markers (Pass/Fail)

1. Go to [hydrotag.vercel.app](https://hydrotag.vercel.app) and log in as "Protagonist".
2. Click "Add Marker".
3. The button should become blue, and the mouse cursor should become a crosshair.
4. Click somewhere on the map.
5. A marker should be added and selected. The button should return to gray, and the cursor should return to its default icon. On the sidebar, it should say "Marker by Protagonist" and "No reviews".

**Scenario 8: Selecting Markers and Adding Reviews (Pass/Fail)**

1. Go to [hydrotag.vercel.app](https://hydrotag.vercel.app) and log in as "Protagonist".
2. Select a marker.
3. Type in a review in the "write a review..." box and click "Submit".
4. The review should appear at the top of the list of reviews.

**– Add Users Tests –**

**Scenario 9: Following and Unfollowing on the "Add Users" Screen (Pass/Fail)**

1. Go to [hydrotag.vercel.app](https://hydrotag.vercel.app) and log in as "Protagonist". Click the "Add Users" tab on the sidebar.
2. Click "Follow" or "Unfollow" on different users.
3. The result may be tested in various ways. The button should switch from "Follow" to "Unfollow" and back. You can verify whether "Protagonist" follows a given user by seeing if their markers appear after filtering by following, or seeing if the water intake of the user is displayed in "Profile". You can use spying, mocking, or similar technique to make sure the correct follow or unfollow requests are sent.

**Scenario 10: Reporting on the "Add Users" Screen (Pass/Fail)**

1. Go to [hydrotag.vercel.app](https://hydrotag.vercel.app) and log in as "Protagonist". Click the "Add Users" tab on the sidebar.
2. Click "Report" on a user.
3. Select a Report Type, write a description, and click Submit Report. The Report should be recorded in the database.

**Scenario 11: Seeing Users' Profiles on the "Add Users" Screen (Pass/Fail)**

1. Go to [hydrotag.vercel.app](https://hydrotag.vercel.app) and log in as "Protagonist". Click the "Add Users" tab on the sidebar.
2. Click "Profile" on a user.
3. The profile should open in a Dialog. You can verify the data in there matches the database, and that the correct badges are awarded.

**Scenario 12: Searching Users on the "Add Users" Screen (Pass/Fail)**

1. Go to [hydrotag.vercel.app](https://hydrotag.vercel.app) and log in as "Protagonist". Click the "Add Users" tab on the sidebar.
2. Type in "canada" in the search bar. Only users with the case-insensitive substring "canada" in their username should remain. Type in "america" and you should see "No results".

## – Leaderboard Tests –

### **Scenario 13:** Leaderboard Screen (Pass/Fail)

1. Go to `hydrotag.vercel.app` and log in as "Protagonist". Click the "Leaderboard" tab on the sidebar.
2. You should see many users, 'Profile' buttons, and the number of markers each user has left. The numbers should be accurate (test with database, spies, mocking, etc.), and in decreasing order. Users with zero markers shouldn't be visible. Profile buttons should work as described in Scenario 11.

## – Profile Tests –

### **Scenario 14:** Viewing the Profile Screen (Pass/Fail)

1. Go to `hydrotag.vercel.app` and log in as "Protagonist". Click the "Profile" tab on the sidebar.
2. The profile on the right hand side should be accurate as described in Scenario 11.

### **Scenario 15:** Updating the Bio on the Profile Screen (Pass/Fail)

1. Go to `hydrotag.vercel.app` and log in as "Protagonist". Click the "Profile" tab on the sidebar.
2. The "Update Your Bio" text box should display Protagonist's current bio. Change its value, and click "Update Bio". The "About Me" section on the right hand side should update.

### **Scenario 16:** Viewing the Water Intake Log on the Profile Screen (Pass/Fail)

1. Go to `hydrotag.vercel.app` and log in as "Protagonist". Click the "Profile" tab on the sidebar.
2. The user should see a log of times they and the people they follow drank water.

### **Scenario 17:** Recording Water Intake on the Profile Screen (Pass/Fail)

1. Go to `hydrotag.vercel.app` and log in as "Protagonist". Click the "Profile" tab on the sidebar.
2. Enter an amount of water in ounces using the '+' and '-' buttons, and click record. It should appear on the list below.

### **Scenario 18:** Seeing Followers and Following on the Profile Screen (Pass/Fail)

1. Go to `hydrotag.vercel.app` and log in as "Protagonist". Click the "Profile" tab on the sidebar.

2. Click the 'Following' button. The user should see a list (passing all the Add Users tests) of people Protagonist follows. Click the 'Followers' button. The user should see a list (passing all the Add Users tests) of people who follow Protagonist.

### **– Unit Tests –**

We do have unit tests, in the '\_\_tests\_\_' directory, that you can run with 'npm run test'. They also run automatically on every commit using Github Actions. However, they're very short, and only check that the Map component starts loading, and the index page renders the heading.

**All the tests described above passed in the released system version.**