# Unlock the Vault Test Plan

### **Peer Test Review:**

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## **Testing Instructions for Expert Users:**

- → Setup:
  - **♦** Frontend:
    - cd dev/frontend
    - npm i
    - npm start
    - Interact with the frontend via <a href="http://localhost:3000/">http://localhost:3000/</a>
  - Backend:
    - Part 1
      - 1. In CLI, run brew install redis
      - 2. Run redis-server (keep this running)
    - Part 2
      - In another tab of the CLI, navigate to UnlockTheVault/dev/backend
      - 2. Run pip3 install -r requirements.txt
      - 3. Run python3 app.py
- → Requirements for hardware/software/password key:
  - Hardware: computer/laptop, keyboard, mouse/trackpad
  - ◆ Software: command line interface (in order to use git, npm, and docker commands)

## **Automation (Complexity) of Testing Instructions:**

- → Time and effort to set up the test plan for execution:
  - ◆ Download/setup time for all requirements/testing tools: ~ 25 min
  - ◆ Testing time for test cases: ~ 1 hr
  - ◆ Testing time for backend: TBD
    - Can only get an estimate once features are complete

### Amount of Time to Finish the Tests:

Can see estimates in the "Time and effort..." subsection

# **Test Cases:**

| Feature  | Description  | Test Case(s)  | Expect<br>ed<br>Time<br>(max) | Expected Result  | Actual<br>Test<br>Result |
|--|--|---|-------------------------------|--|--------------------------|
| page work local and a consistency of the construction of the const | A scrolling view where users can login, sign up for an account, or play a game without an account. They can also get a good idea of what the product is/why it would benefit them to try it out. | User scrolls from top of the page to the bottom.              | < 1 min                       | User should be able to scroll from the top to bottom of the landing page, able to access active buttons for logging in, signing up, or playing a game. | Pass/Fail                |
|  |  | User clicks on the login button.                              | < 1 min                       | User is redirected to the Login page.  | Pass/Fail                |
|  |  | User clicks on the 'Play' button.                             | < 1 min                       | User redirected to a play screen.  | Pass/Fail                |
|  |  | User clicks on the sign up button.                            | < 1 min                       | User redirected to sign up page.   | Pass/Fail                |
| Account<br>creation  | Users are asked to enter email address, password, and first and last name in order to create an account.   | User leaves at least one of the form fields blank.            | < 1 min                       | The form doesn't submit. Users are prompted to fill out the field(s) they left incomplete.   | Pass/Fail                |
|  |  | User tries to create an account with a pre-existing username. | 1 min                         | The form doesn't submit. User is alerted that the entered username has already been used.  | Pass/Fail                |
|  |  | User tries to   | 1 min                         | The form doesn't   | Pass/Fail                |

|                     |   | create an account with a pre-existing email.  |         | submit. User is alerted that the entered email has already been used.   |           |
|---------------------|---|---|---------|---|-----------|
|                     |   | User tries to create an account with a password that doesn't meet password requirements | 1 min   | The form doesn't submit. User is prompted to enter a different password.                                      | Pass/Fail |
|                     |   | User tries to create an account when both password fields don't match.                  | 1 min   | The form doesn't submit. User is notified that the password fields don't match.                               | Pass/Fail |
|                     |   | User tries to create an account with a valid username, email, and password.             | 1 min   | The form is submitted successfully. User is redirected to the login page, to sign in using their new account. | Pass/Fail |
| Password<br>hashing | When an account is being created, users' passwords will be hashed before it's stored in the database for security purposes. | n/a   | < 1 min | n/a   | Pass/Fail |
| Login               | Users can log in to a preexisting account after providing the correct username and password.                                | User enters incorrect credentials.  | 1 min   | User is alerted that they entered an incorrect username.  | Pass/Fail |
|                     |   | User enters the correct username and  | 1 min   | User is redirected to the User Dashboard.   | Pass/Fail |

|                    |   | password.   |             |   |           |
|--------------------|---|---|-------------|---|-----------|
| Logout             | Users can log out of their account using the 'Log Out' button in the navbar.  | User clicks the 'Log Out' button in the navbar.   | < 1 min     | User is redirected to<br>the landing page.<br>Their session ends,<br>and they cannot<br>access the User<br>Dashboard without<br>logging in again. | Pass/Fail |
| Game               | A random, 6 digit key is generated that users have to attempt to guess.   | User guesses<br>digits between 0<br>and 10 inclusive<br>for each of the<br>spots, then<br>submitting their<br>answer. | ~ 15<br>min | Incorrect digits will<br>be highlighted in<br>red, while correct<br>are highlighted in<br>green.  | Pass/Fail |
| Get hints          | While playing a puzzle, users can click the 'Get Hint' option if they are stuck. They have a maximum of 3 hints per game. Hints are the relation between the digit at a spot and that of the digit to its left and right. (e.g. Spot 2 is less than Spot 3, and Spot 2 is the same as Spot 1) | User clicks on<br>the 'Get Hint'<br>option and has<br>used < 3 hints<br>already.                                      | < 1 min     | User gets hints for all incorrect digits as described in the second column.   | Pass/Fail |
|                    |   | User clicks on<br>the 'Get Hint'<br>option and has<br>already used 3<br>hints.  | < 1<br>min. | Users get a<br>notification saying<br>they've run out of<br>hints, and can either<br>keep submitting<br>guesses, or request<br>a Solve.           | Pass/Fail |
| Game<br>Solve      | After they've exhausted 3 hints, the button to request a Solve will become active.  | User clicks on<br>the 'Solve'<br>button.  | < 1 min     | Solution is evaluated given the user's correct guesses and hints provided.  | Pass/Fail |
| Game end<br>screen | Users will see the solution, and be prompted to sign  | User clicks on<br>the 'Sign in'<br>option.  | < 1 min     | User is redirected to<br>the Sign In Page   | Pass/Fail |

|                     | up/sign in and save<br>their game history (if<br>they haven't done so<br>already). | User clicks on<br>the 'Sign Up'<br>option.           | < 1 min | User is redirected to the Sign Up Page.    | Pass/Fail |
|---------------------|--|--|---------|--|-----------|
| User<br>dashboard   | Users can view game history and leaderboard.                                       | User clicks User<br>Dashboard on<br>navbar           | 1 min   | User can see a table for the game history. | Pass/Fail |
| Account<br>settings | Users can access the Account Settings Page through the navbar.                     | User clicks the<br>Settings button<br>in the navbar. | 1 min   | Users redirected to the Settings Page.     | Pass/Fail |