

Test plan sample - for testing the basic login functionality of Hudl.com (by [Jason Avery](#))

1. **Introduction:** This test plan outlines the testing strategy for verifying the log in functionality of [Hudl.com](#). This plan includes the objectives, scope, test environment, test data, test scenarios and test cases. The aim of this test plan is to validate functionality, usability, efficiency, performance and security of logging into [Hudl.com](#).
2. **Objectives:** The objectives of this test plan are to ensure that users can log in to the website successfully using valid credentials and to verify that the system handles invalid login attempts correctly.
 - a. Verify that the log in page is accessible and user-friendly.
 - b. Verify that the log in functionality works correctly for valid credentials.
 - c. Verify that the system handles invalid login attempts correctly.
 - d. Verify the password security and encryption of the password field.
 - e. Verify that the error messages displayed in case of invalid login attempts are meaningful and accurate.
 - f. Verify the log out functionality works correctly.
 - g. Ensure that the website retains the user's session even after refreshing the page.
3. **Scope:** The scope of this test plan includes:
 - a. Verifying the functionality of the log in page.
 - b. Validating the input fields:
 - i. Email:
 1. Field and character limitations defined and set.
 - ii. Password:
 1. Field and character limitations and set.
 - c. The password security and encryption of the password field:
 - i. Password not visible.
 - ii. Password not copy-able.
 - d. Accessibility and usability of the log in page.
 - e. Session retention of the website:
 - i. After refreshing the page.
 - ii. After navigating to other pages within Hudl.com.
 - iii. After navigating to pages external to Hudl.com.
 - iv. After logging out:
 1. What if anything is retained.
 - v. Time out:
 1. Auto time out duration.
 2. Session terminated completely after .
 - f. Valid credentials:
 - i. Log in functionality for valid credentials.
 - g. Invalid credentials:
 - i. Handling of invalid login attempts by the system.
 - h. Error messages displayed in case of invalid login attempts:
 - i. Accurate
 - ii. User readable
 - iii. Actionable
 - iv. Timeliness
 - v. Aesthetics

- vi. Non-hackable error messages - Ensure error messages do not give unnecessary “clues” as to why log in attempts failed.
- i. Log out functionality.
- j. Verifying the error messages displayed in case of invalid login attempts.
 - i. Locked out after specified incorrect attempts.
- k. Remember me:
 - i. Remembers user information:
 - 1. For how long
 - 2. After session end
 - 3. After clearing browser cache
 - 4. Email and password both?
- l. Coach/Roles - Ensure that only authorized users are able to access sensitive information and perform specific actions - Out of scope:
 - i. Correct access levels:
 - 1. View different types of information
 - 2. Perform different types of actions:
 - a. Creating and editing content
 - b. Managing users
 - c. Viewing analytics
 - m. Log In with an Organization - Out of scope.
- 4. **Test Environment:** The test environment should include the necessary hardware and software components, such as a computer with internet access and a web browser.
- 5. **Test Cases** (see detailed Test Cases below): The following scenarios should be performed to verify the log in functionality of Hudl.com:
 - a. Verify that users can log in to the website using valid credentials.
 - b. Verify that the system handles invalid login attempts correctly.
 - c. Verify that the password field is secure and encrypted.
 - d. Verify that the error messages displayed in case of invalid login attempts are accurate and meaningful.
 - e. Use Selenium to automate the appropriate test cases.
- 6. **Test Data:** The test data used in this test plan should include valid and invalid username and password combinations.
- 7. **Test Procedures:** The following test procedures should be followed to verify the log in functionality of Hudl.com:
 - a. Access the log in page of the website.
 - b. Enter valid username and password credentials and click the login button.
 - c. Verify that the user is successfully logged in to the website.
 - d. Enter invalid username and password credentials and click the login button.
 - e. Verify that the error message displayed is accurate and meaningful.
- 8. **Test Results:** The results of the testing should be documented and any defects or issues should be reported and tracked.
- 9. **Conclusion:** The conclusion of this test plan should summarize the results of the testing and provide recommendations for any necessary changes or improvements to the login functionality of Hudl.com.

Test case samples - for testing the basic functionality of [Hudl.com](https://hudl.com) Log In and Log Out:

- ***Log In functionality:***
 - Test case 1: Verify that users can log in to the website using valid credentials.
 - Input: Enter a valid username and password.
 - Expected Output: User should be logged in successfully.
 - Test case 2: Verify that the system handles invalid login attempts correctly.
 - Input: Enter different invalid username and password combinations.
 - Expected Output: Error message should be displayed indicating the invalid credentials.
 - Expected Output: Ensure error messages do not give unnecessary “clues” as to why log in attempts failed.
 - Test case 3: Verify the user can log in using the “Log In” link at the bottom of all of the pages on Hudl.com
 - Expected Output 1: The “Log In” link is present at the bottom of each page
 - Expected Output 2: The “Log In” link follows the same functionality of the “Log In” button on hudl.com.
 - Test case 4: Verify that the password field is secure and encrypted.
 - Input: Check the password field while entering the password.
 - Expected Output: The password should be encrypted and not visible in plain text.
- ***Log Out functionality:***
 - Test case 1: Verify that users can log out of the website successfully.
 - Input: Click the log out button.
 - Expected Output: User should be logged out successfully and redirected to the log in page.
 - Test case 2: Verify that the log out functionality works from any page within the website.
 - Input: Log in to the website and navigate to different pages.
 - Expected Output: User should be able to log out successfully from any page within the website.
- ***UI Test Scenarios:***
 - Verify the login screen contains Email, Password, Log In button, Remember me check box, Need help?, Log In with an Organization.
 - Verify that all the fields have valid placeholders.
 - Verify whether all the text boxes have a minimum and maximum length.
 - Verify that the field becomes active (brighter white) when the text field is selected.
 - Verify the font style and size of the labels, as well as the text on each object, are clearly visible.
 - Correct per requirements.
 - Verify the user interface (UI) is responsive, so it adapts to different screen resolutions, devices, mobile and OS's.
 - Verify the login page and all the fields in the login page are displaying without any break in different browsers as well as mobile.
- ***Functional Test Scenarios:***
 - Verify the cursor is focused in the “Email” text box on the page load (login page).
 - Verify that tab functionality is working properly.
 - Verify the Enter/Tab key works as a substitute for the Log In button.
 - Verify the User is able to Login with Valid Credentials.

- Verify the User is not able to Login with invalid credentials.
- Verify that the User is not able to Login with expired credentials.
- Verify that the User is not able to log in with a blank Email or Password.
- Verify the credentials, mainly password stores in a database in an encrypted format.
- Verify clicking on the browser back button, after successful login, does not log out the user.
- Verify appropriate validation messages are displayed when User leaves an Email or Password blank.
- Verify validation messages are displayed in case of exceeding the character limit of the Email and Password fields.
- Verify validation messages are displayed in case of entering special characters in the Email and password fields.
- Verify the “Remember me” checkbox is unselected by default.
- Verify the timeout of the login session (Session Timeout).
- Verify the logout link is redirected to the login/home page.
- Verify the User is redirected to the appropriate page after successful login.
- Verify the User is redirected to the Login Help page when clicking on the “Need help?” link.
- Verify the User is redirected to the Sign up account page when clicking on the “Sign up” link.
- Verify the User is able to login with the new password after changing the password.
- Verify the user is not able to login with the old password after changing the password.
- Verify spaces are not allowed before any password characters.
- Verify whether the user is still logged in after a series of actions such as sign in, close the browser, and reopening the application.
- Verify the ways to retrieve the password if the user forgets their password.
- *Non-functional Security Test Cases:*
 - Verify clicking the browser back button, after successful logout, does not take the User to a logged in mode.
 - Verify limit on the total number of unsuccessful login attempts (Number of invalid attempts should be based on business logic and requirements.
 - Per business logic, determine next steps.
 - Verify the password is in encrypted form (masked format) when entered in the password field.
 - Verify the password can be copy-pasted.
 - System shouldn’t allow users to copy and paste password.
 - If pasted still encrypted.
 - Verify encrypted characters in the “Password” field do not allow deciphering if copied.
 - Verify the “Need help?” checkbox is unselected by default.
 - Verify whether the login form is revealing any security information by viewing the page source.
 - Verify whether the login page is vulnerable to SQL injection.
 - Verify if Cross-site scripting (XSS) vulnerability works.
 - Verify secure pages cannot be accessed unless logged in.
- *Performance Test Cases:*
 - Verify how much time the application is taking to load the home page after entering the valid user name and password in the login page.

- Many other tests in Phase 2
- *Phase 2 - Other areas to be tested at a future date (intentionally not covered in scope of interview project):*
 - Performance/Scale
 - Security
 - Remaining items outlined in Scope and test plans.¹

¹ Notes:

- *Not all scoped items have test cases written or automation created, due to the nature of this interview project.*
- *Tests are manual until automated, not all test cases have been automated in this phase.*
 - *Ideally, all scoped items will be covered by manual and/or automated tests with reporting.*
- *The test plan and test cases mentioned above are just samples and can be further refined based on the specific requirements of [Hudl.com](https://hudl.com) upon hiring.*