Test Plan Document

# **Project Name: Final Project**

# Features/Requirements

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| Requirement ID | Requirement Description | Feature/Notes |
| RQ-1 | Create a website and login form that prompts for a username and password. Bookmarks are displayed on a separate page if the correct username and password are entered. | If the credentials are valid, but no bookmarks are found to be associated with the user’s account, a message is displayed stating so. |
| RQ-2 | The username and password entered by the user are properly verified and authenticated. The appropriate pages also verify that the user is logged in successfully before displaying any potential information. | Feedback is given in case of an error and said feedback messages are enough to be useful to legitimate users but not direct enough to give potential attackers an edge if trying to gain illicit access to an account. (i.e. not directly stating the password specifically is incorrect). |
| RQ-3 | Utilize JavaScript form validation for better user experience | Realtime error handling |
| RQ-4 | Bookmarks can be added on bookmarks page by filling out form with validation. Bookmarks are updated and new ones will be displayed. | A pop-up modal will be utilized for the add bookmarks form and errors will be handled on the bookmarks page after form submission. |
| RQ-5 | Bookmarks should be searchable for quicker access. A search input with autocomplete will reveal matching bookmarks | Two different search inputs will be utilized to sort users’ saved bookmarks and popular bookmarks |
| RQ-6 | Bookmarks can be deleted by clicking “X” on bookmarks card. |  |
| RQ-7 | Bookmark visits will be tracked. Popular bookmarks will be displayed on “Popular” tab once they are viewed 10 times. | Users can opt out of using view counts to track popular tabs by selecting “no” on add bookmark form. |

# Test Cases

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| Test Case ID | Req. ID | Test Case Description | Expected Result |
| TC-1 | *RQ-1* | Click on the “Login” page in the header/navbar or in the middle of the page. | The page redirects to a login form page where a username and password can be entered. |
| TC-2 | RQ-1 | Click on the “Login” page, enter a valid username and password that has associated bookmarks into both fields, and click the “Login” button. | The user is redirected to the bookmarks page, where the bookmarks associated with their account/User ID# are displayed. |
| TC-3 | RQ-2 | Click on the “Login” page, enter only a username but no password, and then click the “Login” button. | The user is redirected back to the login form, with a message stating “You must enter a password”. |
| TC-4 | RQ-2 | Click on the “Login” page, enter only a password but no username, and then click the “Login” button. | The user is redirected back to the login form, with a message stating “You must enter a valid username”. |
| TC-5 | RQ-2 | Click on the “Login” page and enter nothing into either field and then click the “Login” button. | The user is redirected back to the login form, with two messages stating “You must enter a valid username” and “You must enter a password”. |
| TC-6 | RQ-2 | Click on the “Login” page and enter a correct username but an incorrect password, and then click the “Login” button. | The user is redirected back to the login form, with a message stating “User was not found or password incorrect”. This protects users and makes it harder for attackers to gain illicit access. |
| TC-7 | RQ-2 | Click on the “Login” page and enter an incorrect username but a correct password, and then click the “Login” button. | The user is redirected back to the login form, with a message stating “User was not found or password incorrect”. This protects users and makes it harder for attackers to gain illicit access. |
| TC-8 | RQ-2 | Click on the “Login” page and enter both an incorrect username and incorrect password, and then click the “Login” button. | The user is redirected back to the login form, with a message stating “User was not found or password incorrect”. This protects users and makes it harder for attackers to gain illicit access. |
| TC-9 | RQ-2 | Click on the “Bookmarks” page in the navbar after successfully logging in. | The user is redirected to the bookmarks page associated with their username/user ID. This is due to the user already being authenticated and said status is stored within their session. |
| TC-10 | RQ-2 | Instead of clicking on the links in the navbar, go directly to ~/bookmarks.php by typing it into the URL bar manually while not previously logged in. | The user is redirected to the login form page so that they can login using their credentials. This also protects against potential attackers. |
| TC-11 | RQ-2 | Instead of clicking on the links in the navbar, go directly to ~/bookmarks.php by typing it into the URL bar manually after logging in successfully. | The user is redirected to the bookmarks page associated with their username/user ID. This is due to the user already being authenticated and said status is stored within their session. |
| TC-12 | RQ-2 | Instead of clicking on the links in the navbar, go directly to ~/action-login.php before logging in successfully. | The user is redirected to the login form page and is prompted to enter a username and password. This also protects against potential attackers. |
| TC-13 | RQ-2 | Instead of clicking on the links in the navbar, go directly to ~/action-login.php after logging in successfully. | The user is redirected to the bookmarks page associated with their username/user ID. This is due to the user already being authenticated and said status is stored within their session. |
| TC-14 | RQ-1 | After logging in successfully, go back to the home page and note the status of the login/logout button in the nav bar. | The button will say “Log Out” instead of “Log In” as it did previously. This is due to the user’s successful login/authentication being stored within the session. |
| TC-15 | RQ-2 | After logging in successfully, go back to the home page and click on the “Log Out” button. | The button will say “Log In” as it did previously before logging in. This is due to the button clearing the session data and unsetting the session variable responsible for tracking the status of being logged in when clicked. |
| TC-16 | RQ-2 | After logging in successfully, go back to the home page and click on the “Log Out” button. Afterwards, try navigating to the “Bookmarks” page again. | The user is redirected to the login form page so that they can login using their credentials. This is due to the button clearing the session data and unsetting the session variable responsible for tracking the status of being logged in when clicked. “Bookmarks” link should be hidden. |
| TC-17 | RQ-2 | Go directly to ~/logout.php by typing it into the URL bar manually while not previously logged in. | The user is taken back to the home page. In behavioral practice, this acts just like clicking the “Home” button in the nav bar since the user isn’t already logged in. |
| TC-18 | RQ-2 | Go directly to ~/logout.php by typing it into the URL bar manually after successfully logging in. | The user is taken back to the home page, and the form button will say “Log In” as it did before logging in. This is due to the session data being cleared and the session variable responsible for tracking the status of being logged in getting unset when the code within logout.php is run. |
| TC-19 | RQ-3 | Submit the login form with empty username and password fields. | Errors appear above inputs for both invalid username and password fields. Form submission is prevented. |
| TC-20 | RQ-3 | Submit the login form with empty password and username with less than 3 characters. | Errors appear above inputs for invalid username and password fields due to too short of a username and lack of password. Form submission is prevented. |
| TC-21 | RQ-3 | Submit the login form with password with at least one character and username with less than 3 characters | Error appears above inputs for invalid username field. Form submission is prevented. |
| TC-22 | RQ-3 | Submit the form with username that does not match regex (alphanumeric) | Error for the invalid username will appear. Form submission will be prevented. |
| TC-23 | RQ-3 | Submit the login form with username including non-alphanumeric characters | Error appears above inputs for invalid username field. Form submission is prevented. |
| TC-24 | RQ-3 | Submit the login form with username with 3 or more alphanumeric characters and nonempty password | No errors appear. Form submits. |
| TC-25 | RQ-4 | Submit add bookmark form with empty link and name inputs. | Error displayed on bookmarks page for invalid URL and label |
| TC-26 | RQ-4 | Submit add bookmark form with empty link and filled in name inputs. | Error displayed on bookmarks page for invalid URL and label |
| TC-27 | RQ-4 | Submit add bookmark form with filled in link and empty name input | Error displayed on bookmarks page for invalid URL and label |
| TC-28 | RQ-4 | Submit the add bookmark form with incorrect URL format (required https://www.) | Error displayed on bookmarks page for invalid URL and label |
| TC-29 | RQ-4 | Directly access action-addbookmark.php from bookmarks page while logged into site | Redirect to Bookmarks page with error stating invalid URL and label for bookmark. |
| TC-30 | RQ-4 | Directly access action-addbookmark.php from home page while logged into site | Redirect to Bookmarks page with error stating invalid URL and label for bookmark |
| TC-31 | RQ-4 | Directly access action-addbookmark.php from login page while logged into site | Redirect to Bookmarks page with error stating invalid URL and label for bookmark |
| TC-32 | RQ-4 | Directly access action-addbookmark.php while not logged into the site | Redirect to login page with error stating “You must be logged in to perform this action” |
| TC-33 | RQ-4 | Submit add bookmark form with correct URL format | No errors displayed and new bookmark is added to the page |
| TC-34 | RQ-4 | Enter valid inputs for add bookmark form and check yes for the popular tab | Bookmark will be displayed under popular tab once reaching required count of views. |
| TC-35 | RQ-4 | Enter valid inputs for add bookmark form and check no for popular tab | Bookmark will not be displayed under popular tabs once reaching required count of views. |
| TC-36 | RQ-5 | Click search button with empty search input for “My Bookmarks” | Default bookmarks will be displayed in order they were added. No changes in displayed bookmarks. |
| TC-37 | RQ-5 | Enter characters that do not match existing bookmark for “My Bookmarks” search input | If no bookmarks match the search query, all bookmarks will be hidden. |
| TC-38 | RQ-5 | Enter one character for “My Bookmarks” search input that matches existing bookmarks | All bookmarks with entered character will be displayed. |
| TC-39 | RQ-5 | Enter exact match for one of existing bookmarks for “My Bookmarks” search input | Only the bookmark with exact match will be shown. All other bookmarks will be hidden. |
| TC-40 | RQ-5 | Enter all lower-case characters for existing bookmark in “My Bookmarks” search input | Case sensitivity does not affect search results. All bookmarks with matching letters will be displayed. |
| TC-41 | RQ-5 | Enter all uppercase characters for existing bookmark in “My Bookmarks” search input | Case sensitivity does not affect search results. All bookmarks with matching letters will be displayed. |
| TC-42 | RQ-5 | Click search button with empty search input for “Popular” | Default popular bookmarks will be displayed in descending order by view count. No changes in displayed bookmarks. |
| TC-43 | RQ-5 | Enter characters that do not match existing bookmark for “Popular” search input | All popular bookmarks will be hidden. |
| TC-44 | RQ-5 | Enter one character for “Popular” search input that matches existing bookmarks | All popular bookmarks with matching character will be displayed in descending order by view count. |
| TC-45 | RQ-5 | Enter exact match for one of existing bookmarks for “Popular” search input | Popular bookmark with exact match will be displayed in descending order by view count. |
| TC-46 | RQ-5 | Enter all lower case characters for existing bookmark in “Popular” search input | Case sensitivity does not effect into search results. All bookmarks with matching letters will be displayed. |
| TC-47 | RQ-5 | Enter all uppercase characters for existing bookmark in “Popular” search input | Case sensitivity does not effect into search results. All bookmarks with matching letters will be displayed. |
| TC-48 | RQ-6 | Directly access action-deletebookmark.php while not logged in | Redirect to login form and display error stating user will need to log in first |
| TC-49 | RQ-6 | Directly access action-deletebookmark.php from bookmark page while logged in | Display error that user must click “X” on bookmark to delete. |
| TC-50 | RQ-6 | Directly access action-deletebookmark.php from login page while logged in | Redirect to bookmark page and display error that user must click “X” on bookmark to delete. |
| TC-51 | RQ-6 | Directly access action-deletebookmark.php from home page while logged in | Redirect to the bookmark page and display error that the user must click “X” on a bookmark to delete. |
| TC-52 | RQ-6 | Click “X” on existing bookmark | Bookmark will be deleted from saved bookmarks and will no longer show on bookmarks page. |
| TC-53 | RQ-7 | View a bookmark that is public until popular requirement is met | Bookmark will also show under the Popular tab once the required views have been met. |
| TC-54 | RQ-7 | View a bookmark that is not public until popular requirement is met | Bookmark will not show on the popular tab once the required views have been met. |
| TC-55 | RQ-7 | Navigate directly to action-addvisit.php while not logged in. | Redirect to login page and display error that user must be logged in to perform this action. |
| TC-56 | RQ-7 | Navigate directly to action-addvisit.php while logged in. | Redirect to Bookmarks page with error indicating user must click on a bookmark to add a visit. |
| TC-57 | RQ-7 | Click on bookmark | View count increases by one |
| TC-58 | RQ-7 | Click on a public bookmark 10 times | View count increases to 10 and bookmark is shown under popular tab |
| TC-59 | RQ-7 | Click on a private bookmark 10 times | View count increases to 10 but bookmark is not displayed under popular tab. |

# Test Execution

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| Test Case ID | Test Date/Time | Result |
| TC-1 | Apr. 12, 2023  3:48PM | **Pass.** |
| TC-2 | Apr. 12, 2023  3:48PM | **Pass.** |
| TC-3 | Apr. 12, 2023  3:39PM | **Pass.** |
| TC-4 | Apr. 12, 2023  3:49PM | **Pass.** |
| TC-5 | Apr. 12, 2023  3:49PM | **Pass.** |
| TC-6 | Apr. 12, 2023  3:50PM | **Pass.** |
| TC-7 | Apr. 12, 2023  4:00PM | **Pass.** |
| TC-8 | Apr. 12, 2023  4:02PM | **Pass.** |
| TC-9 | Apr. 12, 2023  4:08PM | **Pass.** |
| TC-10 | Apr. 12, 2023  4:30PM | **Pass.** |
| TC-11 | Apr. 12, 2023  4:31PM | **Pass.** |
| TC-12 | Apr. 12, 2023  4:33PM | **Pass.** |
| TC-13 | Apr. 12, 2023  4:34PM | **Pass.** |
| TC-14 | Apr. 12, 2023  4:37PM | **Pass.** |
| TC-15 | Apr. 12, 2023  4:50PM | **Pass.** |
| TC-16 | Apr. 12, 2023  4:55PM | **Pass.** |
| TC-17 | Apr. 12, 2023  4:56PM | **Pass.** |
| TC-18 | Apr. 12, 2023  4:57PM | **Pass.** |
| TC-19 | May 9, 2023 9:00PM | **Pass.** |
| TC-20 | May 9, 2023 9:01PM | **Pass.** |
| TC-21 | May 9, 2023 9:01PM | **Pass.** |
| TC-22 | May 9, 2023 9:02PM | **Pass.** |
| TC-23 | May 9, 2023 9:05PM | **Pass.** |
| TC-24 | May 9, 2023 9:07PM | **Pass.** |
| TC-25 | May 9, 2023 9:10PM | **Pass.** |
| TC-26 | May 9, 2023 9:15PM | **Pass.** |
| TC-27 | May 9, 2023 9:16PM | **Pass.** |
| TC-28 | May 9, 2023 9:20PM | **Pass.** |
| TC-29 | May 9, 2023 9:21PM | **Pass.** |
| TC-30 | May 9, 2023 9:22PM | **Pass.** |
| TC-31 | May 9, 2023 9:23PM | **Pass.** |
| TC-32 | May 9, 2023 9:25PM | **Pass.** |
| TC-33 | May 9, 2023 9:28PM | **Pass.** |
| TC-34 | May 9, 2023 9:30PM | **Pass.** |
| TC-35 | May 9, 2023 10:00PM | **Pass.** |
| TC-36 | May 9, 2023 10:02PM | **Pass.** |
| TC-37 | May 9, 2023 10:04PM | **Pass.** |
| TC-38 | May 9, 2023 10:05PM | **Pass.** |
| TC-39 | May 9, 2023 10:10PM | **Pass.** |
| TC-40 | May 9, 2023 10:12PM | **Pass.** |
| TC-41 | May 9, 2023 10:16PM | **Pass.** |
| TC-42 | May 9, 2023 10:18PM | **Pass.** |
| TC-43 | May 9, 2023 10:20PM | **Pass.** |
| TC-44 | May 9, 2023 10:22PM | **Pass.** |
| TC-45 | May 9, 2023 10:23PM | **Pass.** |
| TC-46 | May 9, 2023 10:25PM | **Pass.** |
| TC-47 | May 9, 2023 10:28PM | **Pass.** |
| TC-48 | May 9, 2023 10:29PM | **Pass.** |
| TC-49 | May 9, 2023 10:40PM | **Pass.** |
| TC-50 | May 9, 2023 10:41PM | **Pass.** |
| TC-51 | May 9, 2023 10:45PM | **Pass.** |
| TC-52 | May 9, 2023 10:56PM | **Pass.** |
| TC-53 | May 9, 2023 11:05PM | **Pass.** |
| TC-54 | May 9, 2023 11:10PM | **Pass.** |
| TC-55 | May 9, 2023 11:12PM | **Pass.** |
| TC-56 | May 9, 2023 11:14PM | **Pass.** |
| TC-57 | May 9, 2023 11:15PM | **Pass.** |
| TC-58 | May 9, 2023 11:16PM | **Pass.** |
| TC-59 | May 9, 2023 11:20PM | **Pass.** |