

Test Report

Title: Report on Testing the Functionality of the Photo Gallery Website

Introduction

The purpose of this functional testing is to thoroughly assess the performance and functionality of the Photo Gallery website, which can be accessed at <http://demo.baasic.com/angular/starterkit-photo-gallery/main>.

Testing Objectives

Search Testing Objectives

1. Verify the accuracy of keyword-based search.
2. Verify behavior when the search field is empty.
3. Verify behavior when entering spaces in the search field.
4. Test searching with special characters (other than space).
5. Verify photo upload date search.
6. Verify numeric search functionality.
7. Ensure case insensitivity in search.
8. Test partial keyword search.
9. Verify search results with multiple keywords.
10. Verify handling of excessively long keywords.
11. Exclude images without descriptions from the search results when using the keyword "description".
12. Ensure consistency of search results after opening and closing search results.
13. Verify technical details of photos in search.
14. Test photo gallery scrolling.
15. Verify for consistency in the number of photos displayed in different web browsers.
16. Verify HTTP status codes for photo URLs.
17. Verify logo expansion and menu link functionality.

Registration and Login Testing Objectives

1. Test registration with valid credentials.
2. Verify for an error message when an invalid email address is used for registration.
3. Verify the error message for a previously registered email address during registration.
4. Verify the availability of usernames during registration.
5. Test registration with usernames containing multiple words.
6. Verify registration with usernames containing alphanumeric and special characters.
7. Verify password length requirements during registration.
8. Verify password and password confirmation matching during registration.
9. Test registration with passwords containing alphanumeric and special characters.
10. Verify email confirmation link redirection.
11. Test account activation confirmation.

12. Verify login with valid credentials.
13. Verify behavior when attempting to log in before account activation.
14. Test login with both uppercase and lowercase usernames.
15. Verify login with the correct letter casing for passwords.
16. Verify behavior when entering an invalid username during login.
17. Verify login with an invalid password.
18. Test locking the account after five invalid login attempts.
19. Verify integrated login via social media platforms (Facebook, Twitter, Google, GitHub).
20. Test redirection to the password recovery page.
21. Verify password recovery with a valid email address.
22. Verify password recovery with an invalid email address.

Album Creation and Photo Upload Testing Objectives

1. Test the successful creation of an album with a mandatory cover photo.
2. Verify the display of a warning for an extremely long album name.
3. Test the successful creation of an album with a name containing special characters and numbers.
4. Verify the display of a warning for an extremely long album description.
5. Test the successful creation of an album with a description containing special characters and numbers.
6. Verify the successful uploading of photos to the selected album.
7. Verify for supported photo formats (JPEG/JPG) during upload.
8. Verify an error message for unsupported formats (GIF, PNG) during photo upload.
9. Verify successful uploading of photos with specified dimensions.
10. Verify for unique file names for uploaded photos.
11. Test the ability to upload the same photo with the same file name across different user accounts.

Working with Photos and Albums Testing Objectives

1. Verify the display of photos within the album.
2. Test access to individual photos within the album.
3. Verify navigation through photos within the album.
4. Test zoom functionality for photos.
5. Verify successful downloading of photos from the album.
6. Verify the successful change of the album cover photo.
7. Verify consistency in displaying album and photo information.

Content Deletion Testing Objectives

1. Test the successful deletion of photos from an album.
2. Verify the removal of traces of deleted photos from the profile and gallery.
3. Verify that deleted photos are not visible in search results by their names.
4. Verify the successful deletion of an album from the profile.
5. Verify the removal of all linked data and photos after deleting an album.

6. Verify that photos from deleted albums do not appear in search results by their names.

Navigation and Logout Testing Objectives

1. Verify correct navigation using the logo icon to return to the home/menu page.
2. Verify correct navigation to the "Profile" and "Create Album" pages via the menu.
3. Test successful user logout via the menu.

Description of the Tested Application:

The application under test is a web-based platform designed for managing and sharing photos and albums with features including search, registration, login, album creation, photo uploading, photo viewing and content deletion.

Executed Test Cases

Search Tests

Test Number	Test Name	Result	Description
1.1	Valid Keyword Search	Pass	Only photos matching the entered keyword are displayed.
1.2	Invalid Keyword Search	Fail	Entering invalid keyword results in displaying photos that do not contain the entered keyword, expecting a no search results notification.
1.3	Empty Search Field	Pass	The search field remains empty and no search is initiated.
1.4	Search with "Space" Character	Pass	Empty search field with "space" characters does not display photos, and appropriate notifications are shown.
1.4.1	Search with Special Characters (Other than Space)	Fail	Entering special characters in the search field displays photos that are not expected.
1.4.2	Search by Photo Date	Fail	The search result using the date format displayed in the photo details leads to the display of a page with a 404 status code.
1.5	Numeric Search	Fail	The search produces irrelevant results for entries consisting of only one or two digits.

Test Number	Test Name	Result	Description
1.6	Search Case Insensitivity	Pass	The search is case-insensitive.
1.7	Partial Keyword Search	Fail	The search produces irrelevant results for entries consisting of only one or two letters.
1.8	Multiple Keyword Search	Fail	Inconsistent search results are displayed when multiple keywords are entered; only relevant results are expected.
1.9	Excessively Long Keyword Search	Pass	Entering an excessively long keyword does not display photos, and a no search results notification is shown.
1.10	"Description" Keyword Search	Pass	The search for the keyword "description" includes only images that have a description entered, while images without a description receive an automatic notification "No description available" are not included in the search results.
2.1	Verifying Consistency of Photo Search Results	Fail	After opening and closing search results, the number of displayed results decreases from the initial 6 photos to only 3, instead of the expected 6.
2.2	Photo Technical Details Discrepancy		Test identifies variations in the technical details of photos but doesn't have strict pass/fail criteria.
3.1	Photo Gallery Scrolling	Pass	Clicking the "Display photos" button grants access to the photo gallery with smooth scrolling and clicking it again closes the gallery.
3.2	Simulating Counting Photos in the Gallery	Fail	Counting photos in Chrome and Firefox browsers shows differences in the number of photos between the browsers.
3.2.1	Validation of Photo URL HTTP Status Codes	Fail	Checking status codes for photo URLs reveals that some photos do not return the expected HTTP status code 200.

Registration and Login

Test Number	Test Name	Result	Description
4	Logo Expansion and Menu Link	Pass	Expanding the logo icon when hovering over it and successfully redirecting to the menu page upon clicking on the option "Menu."
5.1	Registration with Valid Credentials	Pass	Registration with valid data is completed successfully and a successful registration notification is displayed.
5.2	Registration with Invalid Email Address	Pass	An error message for an invalid email address is displayed, and registration is prevented until a valid email address is entered.
5.3	Registration with Registered Email Address	Pass	An error message for a previously registered email address is displayed, and registration is prevented until a unique email address is entered.
5.4	Registration Username Availability	Pass	An error message for a taken username is displayed, and registration is prevented until a unique username is entered.
5.5	Registration with Multiple Words in Username	Pass	Registration with a username containing multiple words is completed successfully, and a successful registration notification is displayed.
5.6	Registration with Alphanumeric and Special Character Combination Username	Pass	Registration with a username containing alphanumeric characters and special characters is completed successfully, and a successful registration notification is displayed.
5.7	Registration Password Length	Pass	An error message for a password shorter than the minimum required length is displayed, and registration is prevented until a password of sufficient length is entered.
5.8	Registration with Password Confirmation Mismatch	Pass	An error message for password and password confirmation mismatch is displayed, and registration is prevented until they match.

Test Number	Test Name	Result	Description
5.9	Registration with Alphanumeric and Special Character Combination in Password	Pass	Registration with a password containing alphanumeric characters and special characters is completed successfully, and a successful registration notification is displayed.
6.1	Email Confirmation Link Redirection	Pass	Clicking on the email confirmation link successfully redirects to the account activation page.
6.2	Account Activation Confirmation	Pass	Clicking on the "Activate Account" button on the confirmation page successfully redirects to the login page.
7.1	Login with Valid Credentials	Pass	The user successfully logged in using valid login credentials.
7.2	Login before Account Activation	Pass	Attempting to log in before account activation results in displaying an error notification: "Invalid email, username or password."
7.3	Login with Uppercase/Lowercase Username	Pass	The application allows login with usernames in both uppercase and lowercase letters. The user successfully logs in both cases.
7.4	Login with Uppercase/Lowercase Password	Pass	The application allows login only with the correct letter casing for the password. The user successfully logs in only if the password is entered in the correct letter casing.
7.5	Login with an Invalid Username	Pass	Entering an invalid username results in displaying an error notification: "Invalid email, username or password."
7.6	Login with an Invalid Password	Pass	Entering an invalid password results in displaying an error notification: "Invalid email, username or password."

Test Number	Test Name	Result	Description
7.6.1	Verifying Locking Account After Five Invalid Login Attempts	Fail	After five invalid login attempts, an error notification "User is locked." should be displayed, along with instructions on how to unlock the account or contact customer support. The test failed due to the missing guidance for users.
7.7	Facebook Account Link	Fail	Attempting to log in via Facebook failed and resulted in displaying an error notification: "undefined: Social login configuration not found." instead of redirecting the user to the Facebook application for authentication.
7.8	Twitter Account Link	Fail	Attempting to log in via Twitter failed and resulted in displaying an error notification: "undefined: Social login configuration not found." instead of redirecting the user to the Twitter application for authentication.
7.9	Google Account Link	Fail	Attempting to log in via Google failed and resulted in displaying an error notification: "undefined: Social login configuration not found." instead of redirecting the user to the Google application for authentication.
7.10	GitHub Account Link	Fail	Attempting to log in via GitHub failed and resulted in displaying an error notification: "undefined: Social login configuration not found." instead of redirecting the user to the GitHub application for authentication.
8.1	Redirect to Password Recovery Page	Pass	The user was successfully redirected to the Password Recovery page after clicking on the corresponding link.
8.2	Recover Password with Valid Email Address	Pass	After successful redirection (Test Case 7.1) and entering the registered email address, the user was notified to check their email to complete the password recovery process.
8.3	Recover Password with Invalid Email Address	Pass	Entering an invalid email address results in displaying the appropriate notification.

Test Number	Test Name	Result	Description
8.4	Recover Password with Unregistered Email Address	Pass	Entering a valid but unregistered email address results in displaying the appropriate notification.
8.5	Recover Password via Email	Fail	Clicking on the password recovery link leads to a 404 error page.

Album Creation and Photo Upload

Test Number	Test Name	Result	Description
9	Creating an Album with Mandatory Cover Photo	Pass	Creating an album with a mandatory cover photo is successful.
9.1	Managing Overly Long Album Name	Fail	The system does not display a warning or error when creating an album with an extremely long name.
9.1.1	Managing Alphanumeric and Special Character Combinations in Album Name	Pass	An album with a name containing special characters and numbers is successfully created.
9.2	Managing Overly Long Album Description	Fail	The system does not display a warning or error when creating an album with an extremely long description.
9.2.1	Managing Alphanumeric and Special Character Combinations in Album Description	Pass	An album with a description containing special characters and numbers is successfully created.
10	Uploading Photos to Album	Pass	Adding photos to the selected album is successful, they appear at the beginning of the gallery and can be found by name search.

Test Number	Test Name	Result	Description
10.1	Uploading Photos with Various Formats	Pass	A photo in JPG/JPEG format is successfully uploaded, while for GIF and PNG formats, it displays an error: "Allowed file types are: .jpeg / .jpg," and prevents the upload.
10.2	Uploading Photos with Various Dimensions	Pass	Photos are successfully uploaded with the specified dimensions.
11	Ensuring Unique File Names for Uploaded Photos	Pass	Until a unique photo name is entered, it displays an error: "Name taken, please choose another," and prevents the upload.
11.1	Preventing Duplicate Photo Names Across Different User Accounts	Fail	Uploading the same photo with the same name across different user accounts is allowed.
12.1	Managing Overly Long Photo Name	Fail	The appropriate error for overly long photo names is not shown and issues with search and image display are present.
12.1.1	Managing Alphanumeric and Special Character Combinations in Photo Names	Fail	Problems with uploading images with special characters in the name, as well as issues with display and data consistency.
12.2	Managing Overly Long Photo Description	Fail	A photo with an overly long description is uploaded but there are various issues present.
12.2.1	Managing Alphanumeric and Special Character Combinations in Photo Description	Pass	A photo with a description containing special characters is successfully uploaded and displayed with consistent data.

Working with Photos and Albums

Test Number	Test Name	Result	Description
13	Displaying Photos Within the Album	Pass	Displaying photos in the album and navigating through them works without issues.
14	Accessing Individual Photos Within the Album	Fail	Issues with displaying photos at odd positions in the album.
15	Navigating Through Photos Within the Album	Fail	Issues with displaying dates in different time zones and inaccurate data about the photos.
16	Zooming In and Out	Fail	Zoom functionality is not available on 4 out of 10 tested photos in the album. This is most likely due to photo attributes, even though the format and dimensions are within acceptable limits.
17.1	Downloading Photo from Album	Pass	The photo is successfully downloaded and opens without issues.
17.2	Downloading Photo from Gallery	Pass	The photo is successfully downloaded and opens without issues.
18	Changing Album Cover Photo	Pass	Changing the album cover photo is done successfully without data loss.
19	Accessing Album Contents and Verifying Data Consistency	Pass	All album and photo information is displayed correctly and consistently.

Content Deletion

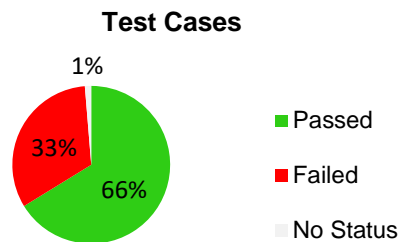
Test Number	Test Name	Result	Description
20	Displaying Albums Within the Profile	Pass	Displaying album cover photos works smoothly, and the order remains consistent.

Test Number	Test Name	Result	Description
21.1	Deleting the Even-Positioned Photo	Pass	The photo is successfully deleted from the album, and traces are removed from the profile and gallery. The photo is not shown in search results.
21.2	Deleting the Odd-Positioned Photo in a Multiple-Photo Album	Fail	After deleting a photo, the user is initially redirected to the album's page, but upon refreshing the page, the user is redirected to a 404 status page. The photo is permanently removed from the profile and gallery, and it doesn't appear in search results.
21.3	Deleting the Odd-Positioned Photo in a Single Photo Album	Pass	The photo is successfully deleted from the album, and traces are removed from the profile and gallery. The photo is not shown in search results.
21.4	Deleting the Last Odd-Positioned Photo in the Album	Pass	The photo is successfully deleted from the album, and traces are removed from the profile and gallery. The photo is not shown in search results.
22	Deleting an Album	Pass	The album is successfully deleted from the profile, along with all linked data and photos. Photos from deleted albums do not appear in search results by their names.

Navigation and Logout

Test Number	Test Name	Result	Description
23.1	Logo Icon Return to Home/Menu Page	Pass	Correct navigation to the Menu and Home pages.
23.1.1	Access Profile Page from Menu	Pass	Correct navigation to the Profile page by clicking on the "Profile" option from the menu.
23.1.2	Access Create Album Page from Menu	Pass	Correct navigation to the Create Album page by clicking on the "Create Album" option from the menu.
23.1.3	Logout Functionality	Pass	Successful logout after clicking on the "Logout" option from the menu.

Test Results



Testing Coverage

All planned test cases for functional testing were executed as per the test plan.

Conclusion

Different results were discovered during the application testing process. The application's strengths were observed in various areas, such as successful keyword searches and registration with valid data. For example, quick and efficient keyword searches were enabled for users, thus enhancing their experience.

However, significant weaknesses were identified in the application. Critical issues were noted, especially in areas such as integration with social media, consistency of search results, and handling long names and descriptions for albums and photos. For instance, integration with specific social media platforms did not function as expected, leading to a negative impact on user interaction with the application. These findings point to the need for further development and improvement of the application to enhance its reliability and user experience.

Furthermore, serious error issues and slow response times were discovered during JMeter tests under high load in the system. These problems can have serious consequences for the availability of the application and the user experience. To improve efficiency, it is necessary to thoroughly investigate the causes of these issues and optimize the system to achieve stability and reliability.

In line with these findings, it is recommended to take appropriate measures to enhance the application and optimize the system to provide a better experience for users and mitigate potential negative consequences under high load.