



CS 1632 Software Quality Assurance

Deliverable 3: Automated Web Testing

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Summary

While creating tests for this project we ran into a few issues, specifically when exporting Selenium tests to a Junit test file. For example, when exporting the test case FUN-WELCOME, Selenium would change the character “\n” to “\\n” and we would be required to manually delete the additional backslashes. Also Selenium converts relative urls like “/” into absolute urls like “https://cs1632.appspot.com” so we were required to change any relative url assertion to an absolute url in the Java file. I expect in the workplace to use absolute urls rather than relative urls due to the way selenium converts them all to absolute urls during exports. We also ran into an issue where we didn’t know how to verify that only three images appeared on the Cathy page. To remedy this issue we asserted that the first three image elements were present on the page, and the fourth was not present. However aside from the exporting issues Selenium is very intuitive for automated web testing, it makes it very easy to select CSS elements and assert their values.

Defects:

IDENTIFIER: DEFECT1-FUN-HELLO-TRAILING

SUMMARY: The incorrect message is displayed

DESCRIPTION: When the user provides a trailing value when accessing the /hello page, then the message displays hell from the trailing value

PRECONDITIONS:

1. The Google Chrome Web Browser is installed on machine
2. Able to access to the internet

REPRODUCTION STEPS:

1. Open Google Chrome
2. Input <https://cs1632.appspot.com/hello/?> Into the URL

EXPECTED BEHAVIOR: A text box that reads "Hello CS1632, from ?!" appears

OBSERVED BEHAVIOR: A text box that reads "Hello CS1632, from Dr. Ahn!" appears

IDENTIFIER: DEFECT2-FUN-INVALID-VALUE

SUMMARY: Error page is thrown when inputting "hello"

DESCRIPTION: When the user inputs an invalid string they are informed the value is 1

PRECONDITIONS:

1. The Google Chrome Web Browser is installed on machine
2. Able to access to the internet

REPRODUCTION STEPS:

1. Open Google Chrome
2. Input "https://cs1632.appspot.com/fact" Into the URL
3. Underneath the text "Enter number to calculate factorial of:" type "hello" and press "submit"

EXPECTED BEHAVIOR: A text box which says "The factorial of hello is 1!" appears

OBSERVED BEHAVIOR: The url redirects to an error page

IDENTIFIER: DEFECT3-FUN-FIB

SUMMARY: a valid value is not recognized for the Fibonacci page

DESCRIPTION: When the user inputs a valid value (any integer from 1 to 10) the user is shown the Fibonacci of that value

PRECONDITIONS:

1. The Google Chrome Web Browser is installed on machine
2. Able to access to the internet

REPRODUCTION STEPS:

1. Open Google Chrome
2. Input "https://cs1632.appspot.com/fib" Into the URL
3. Underneath the Textbox which reads "Enter number to calculate Fibonacci of:" type "10" and press "submit"

EXPECTED BEHAVIOR: A text box which says "Fibonacci of 10 is 55!" appears

OBSERVED BEHAVIOR: A text box which says "Fibonacci of 10 is 1!" appears