**ISM 4432 and 6145 – SOFTWARE TESTING**

**SPRING SEMESTER 2022**

# TESTING ASSIGNMENT 4 – Due: April 16, 2022

*Automated Software Testing*

## **1. Selenium IDE Assignment**

**Instructions**:

1. Pick some part of the <http://demo.guru99.com/test/newtours/> web site as your SUT (System under test) (e.g. Sign-on page, Register page, home page, flight booking)
2. Create at least 4 separate test-case files that comprise at least 6 commands.
3. Create a test suite which calls each of your test-case files.
4. Prepare the final set of deliverables for submission into Canvas.

**Deliverables**: Test plan, Test scripts with a brief description of what each script does. Attach Screen shots if appropriate. Also, if there are any preconditions (files created configurations etc.) please mention those.

**Note:** Your tests do not have to all pass in order for you to get the best grade possible! In fact, a test **should** fail if the SUT has a bug in the test's area.

Your tests can be "all capture" or "all hand-coded" or some mixture of the two. It is the *quality* of code that matters, not how you produced it. That said, it may prove difficult to produce a quality set of tests using "all capture."

**Grading criteria**:

* Well-documented code, i.e., **comments!** Explain both what you are testing and what the code does.
* *Robust* test cases, i.e., those that can survive minor text changes by the page's owners.
* *Completeness* of test cases, i.e., cases which cover everything that needs to be verified or asserted for a feature.

1. **Automation guidelines**

2.1 Read through the *Selenium’s Hands-on Tutorials:* available in *Canvas.*

2.2Write down the tests you would like to perform on the SUT as simple one-line sentences. You may use any functional testing paradigm to develop your test cases. Remember to be devious in your selection of test cases. (You may later use them to create your test scripts and even add more detail. It is advisable to keep your scripts well documented and maintainable.)

2.3 Use different methods to identify web elements as given in tutorial (Eg. DOM, CSS, Xpath)

1. **Deliverables**

3.1 You are expected to deliver at least 4 test cases for your SUT. Report each test case using Functional Test Case Reporting Forms attached to this assignment.

3.2 Submit test scripts for the above test cases. You can submit the HTML files. Include comments in your scripts to make it easier to understand and separate one test case from the other.

3.3 Complete Defect Reporting Forms if running a test case results in a failure. Report the defect using the report form attached.

1. **Assignment time line**

The following time line is recommended so that you may complete your assignment comfortably and efficiently.

* 1. Reading phase:

Go through the Selenium documentation; begin thinking about possible test cases for a given system.

* 1. Working phase:

Learn the basic operations of Selenium IDE, create test scripts for the selected system, and complete the assignment.

* 1. Submit the assignment end of the day on April 16, 2022. Please submit your deliverables as a single compressed folder to Canvas.

The course Teaching Assistant – Amulya Alwala ([aalwala@usf.edu](mailto:aalwala@usf.edu) ) – is available to answer your queries regarding this assignment.

Test Case Report

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| --- | --- | --- | --- |
| **GENERAL INFORMATION** | | | |
| **Test Stage:** | Unit Functionality Integration System Interface  Performance Regression Acceptance Pilot  **Functionality and unit test code** | | |
| **Test Date:** |  | **System Date, if applicable:** |  |
| **Tester:** |  | **Test Case Number:** |  |
| **Test Case Description:** |  | | |
| **Results:** | Pass Fail | **Incident Number, if applicable:** |  |
| **INTRODUCTION** | | | |
| **Requirement(s) to be tested:** |  | | |
| **Roles and Responsibilities:** |  | | |
| **Set Up Procedures:** |  | | |
| **Stop Procedures:** |  | | |
| **ENVIRONMENTAL NEEDS** | | | |
| **Hardware:** |  | | |
| **Software:** |  | | |
| **Procedural Requirements:** |  | | |
| **TEST** | | | |
| **Test Items and Features:** |  | | |
| **Input Specifications:** |  | | |
| **Procedural Steps:** |  | | |
| **Expected Results of Case:** |  | | |
| **ACTUAL RESULTS** | | | |
| **Output Specifications:** |  | | |

DEFECT REPORTING FORM

**DEFECT ID:**

**TITLE: COMPONENT:**

**REPORTED BY: SUBCOMPONENT:**

**REPORTED ON: VERSION:**

**PLATFORM: RESOLUTION PRIORITY:**

**OPERATING SYSTEM: RESOLUTION SEVERITY:**

**RELATED TEST CASE IDS: CONSISTENCY:**

**DEFECT SUMMARY:**

**STEPS TO REPRODUCE:**

**COMMENTS:**

**ATTACHMENTS:**

1.

2.

**For evaluators use only**

**DEFECT STATUS: \_\_\_\_\_\_\_\_\_APPROVED \_\_\_\_\_\_\_\_\_ REJECTED**

**REASON:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Test Case Report

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| --- | --- | --- | --- |
| **GENERAL INFORMATION** | | | |
| **Test Stage:** | Unit Functionality Integration System Interface  Performance Regression Acceptance Pilot  **Functionality and unit test code** | | |
| **Test Date:** |  | **System Date, if applicable:** |  |
| **Tester:** | Mandie Livingston | **Test Case Number:** | MSL4\_001 |
| **Test Case Description:** | Correctly fail sign on | | |
| **Results:** | Pass Fail | **Incident Number, if applicable:** |  |
| **INTRODUCTION** | | | |
| **Requirement(s) to be tested:** | Sign on of the Mercury Tours web site | | |
| **Roles and Responsibilities:** | To test if a user is properly notified when the incorrect credentials are used | | |
| **Set Up Procedures:** | Open web browser to <https://demo.guru99.com/test/newtours> and make sure it is online | | |
| **Stop Procedures:** | n/a | | |
| **ENVIRONMENTAL NEEDS** | | | |
| **Hardware:** | macOS Big Sur 11.6.5 | | |
| **Software:** | Chrome browser Version 100.0.4896.127 (Official Build) (x86\_64)  Selenium IDE Version 3.17.2 | | |
| **Procedural Requirements:** | Selenium IDE launched | | |
| **TEST** | | | |
| **Test Items and Features:** | Verify the presence of an error message on a failed sign on attempt | | |
| **Input Specifications:** | Username: username\_11  Password: password\_11 | | |
| **Procedural Steps:** | Launch Chrome and navigate to <https://demo.guru99.com/test/newtours>  Click on the SIGNON link in the navigation bar  Once the page <https://demo.guru99.com/test/newtours/login.php> has loaded  Enter the username and password as defined in the Input Specification  Click SUBMIT | | |
| **Expected Results of Case:** | An error message lets the user know that their sign on attempt has failed | | |
| **ACTUAL RESULTS** | | | |
| **Output Specifications:** | The error message “Enter your userName and password correct” is presented to the user on the screen after clearing the username and password fields | | |

Graphical user interface, text, application

Description automatically generated

Test Case Report

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| --- | --- | --- | --- |
| **GENERAL INFORMATION** | | | |
| **Test Stage:** | Unit Functionality Integration System Interface  Performance Regression Acceptance Pilot  **Functionality and unit test code** | | |
| **Test Date:** |  | **System Date, if applicable:** |  |
| **Tester:** | Mandie Livingston | **Test Case Number:** | MSL4\_002 |
| **Test Case Description:** | Successfully register an account | | |
| **Results:** | Pass Fail | **Incident Number, if applicable:** |  |
| **INTRODUCTION** | | | |
| **Requirement(s) to be tested:** | Account registration | | |
| **Roles and Responsibilities:** | To test registering an account | | |
| **Set Up Procedures:** | Open web browser to <https://demo.guru99.com/test/newtours> and make sure it is online | | |
| **Stop Procedures:** | n/a | | |
| **ENVIRONMENTAL NEEDS** | | | |
| **Hardware:** | macOS Big Sur 11.6.5 | | |
| **Software:** | Chrome browser Version 100.0.4896.127 (Official Build) (x86\_64)  Selenium IDE Version 3.17.2 | | |
| **Procedural Requirements:** | Selenium IDE launched | | |
| **TEST** | | | |
| **Test Items and Features:** | To verify a user can register an account successfully | | |
| **Input Specifications:** | First name: test\_first\_name\_1  Last name: test\_last\_name\_1  Username: username\_1  Password: password\_1 | | |
| **Procedural Steps:** | Launch Chrome and navigate to <https://demo.guru99.com/test/newtours>  Click on the SIGNON link in the navigation bar  Once the page <https://demo.guru99.com/test/newtours/register.php> has loaded  Populate the form as defined in the Input Specification  Click SUBMIT | | |
| **Expected Results of Case:** | A successful registration message | | |
| **ACTUAL RESULTS** | | | |
| **Output Specifications:** | **Dear test\_first\_name\_1 test\_last\_name\_1,**  Thank you for registering. You may now [sign-in](https://demo.guru99.com/test/newtours/login.php)using the user name and password you've just entered.  **Note: Your user name is username\_1.** | | |

Graphical user interface, text, application, email

Description automatically generated

Test Case Report

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| **GENERAL INFORMATION** | | | |
| **Test Stage:** | Unit Functionality Integration System Interface  Performance Regression Acceptance Pilot  **Functionality and unit test code** | | |
| **Test Date:** |  | **System Date, if applicable:** |  |
| **Tester:** | Mandie Livingston | **Test Case Number:** | MSL4\_003 |
| **Test Case Description:** | Sign on successfully | | |
| **Results:** | Pass Fail | **Incident Number, if applicable:** |  |
| **INTRODUCTION** | | | |
| **Requirement(s) to be tested:** | Sign on of the Mercury Tours web site | | |
| **Roles and Responsibilities:** | To test if a user can sign on with known good credentials | | |
| **Set Up Procedures:** | Open web browser to <https://demo.guru99.com/test/newtours> and make sure it is online | | |
| **Stop Procedures:** | n/a | | |
| **ENVIRONMENTAL NEEDS** | | | |
| **Hardware:** | macOS Big Sur 11.6.5 | | |
| **Software:** | Chrome browser Version 100.0.4896.127 (Official Build) (x86\_64)  Selenium IDE Version 3.17.2 | | |
| **Procedural Requirements:** | Selenium IDE launched | | |
| **TEST** | | | |
| **Test Items and Features:** | Verify a user can sign on successfully | | |
| **Input Specifications:** | Username: username\_1  Password: password\_1 | | |
| **Procedural Steps:** | Launch Chrome and navigate to <https://demo.guru99.com/test/newtours>  Click on the SIGNON link in the navigation bar  Once the page <https://demo.guru99.com/test/newtours/login.php> has loaded  Enter the username and password as defined in the Input Specification  Click SUBMIT | | |
| **Expected Results of Case:** | The user signs on successfully | | |
| **ACTUAL RESULTS** | | | |
| **Output Specifications:** | Login Successfully  Thank you for Loggin. | | |

Graphical user interface, text, application

Description automatically generated

Test Case Report

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| **GENERAL INFORMATION** | | | |
| **Test Stage:** | Unit Functionality Integration System Interface  Performance Regression Acceptance Pilot  **Functionality and unit test code** | | |
| **Test Date:** |  | **System Date, if applicable:** |  |
| **Tester:** | Mandie Livingston | **Test Case Number:** | MSL4\_004 |
| **Test Case Description:** | Min boundary testing the registration form fields. | | |
| **Results:** | Pass Fail  Though the test passed it shouldn’t have and I am calling this a fail. | **Incident Number, if applicable:** |  |
| **INTRODUCTION** | | | |
| **Requirement(s) to be tested:** | Registration form of the Mercury Tours web site | | |
| **Roles and Responsibilities:** | To test if a user can successfully register an account without entering any data | | |
| **Set Up Procedures:** | Open web browser to <https://demo.guru99.com/test/newtours> and make sure it is online | | |
| **Stop Procedures:** | n/a | | |
| **ENVIRONMENTAL NEEDS** | | | |
| **Hardware:** | macOS Big Sur 11.6.5 | | |
| **Software:** | Chrome browser Version 100.0.4896.127 (Official Build) (x86\_64)  Selenium IDE Version 3.17.2 | | |
| **Procedural Requirements:** | Selenium IDE launched | | |
| **TEST** | | | |
| **Test Items and Features:** | Verify the user can register a new account successfully | | |
| **Input Specifications:** | No input | | |
| **Procedural Steps:** | Launch Chrome and navigate to <https://demo.guru99.com/test/newtours>  Click on the REGISTER link in the navigation bar  Once the page <https://demo.guru99.com/test/newtours/register.php> has loaded  Click SUBMIT | | |
| **Expected Results of Case:** | I would expect this test to fail as nothing is being submitted for the username and password, but it successfully registers an account with no first name, last name, or username. | | |
| **ACTUAL RESULTS** | | | |
| **Output Specifications:** | Dear ,  Thank you for registering. You may now sign-in using the user name and password you've just entered.  Note: Your user name is . | | |

Graphical user interface, text, application

Description automatically generated

Test Case Report

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| --- | --- | --- | --- |
| **GENERAL INFORMATION** | | | |
| **Test Stage:** | Unit Functionality Integration System Interface  Performance Regression Acceptance Pilot  **Functionality and unit test code** | | |
| **Test Date:** |  | **System Date, if applicable:** |  |
| **Tester:** | Mandie Livingston | **Test Case Number:** | MSL4\_005 |
| **Test Case Description:** | Max boundary testing the registration form fields. | | |
| **Results:** | Pass Fail | **Incident Number, if applicable:** |  |
| **INTRODUCTION** | | | |
| **Requirement(s) to be tested:** | Registration form of the Mercury Tours web site | | |
| **Roles and Responsibilities:** | To test if a user can successfully register an account with the maximum length fields as defined by the input control settings | | |
| **Set Up Procedures:** | Open web browser to https://demo.guru99.com/test/newtours/register.php | | |
| **Stop Procedures:** | n/a | | |
| **ENVIRONMENTAL NEEDS** | | | |
| **Hardware:** | macOS Big Sur 11.6.5 | | |
| **Software:** | Chrome browser Version 100.0.4896.127 (Official Build) (x86\_64)  Selenium IDE Version 3.17.2 | | |
| **Procedural Requirements:** | Selenium IDE launched | | |
| **TEST** | | | |
| **Test Items and Features:** | Verify the user can register a new account successfully | | |
| **Input Specifications:** | First Name: FIRSTxxx10xxxxxxxx20xxxxxxxx30xxxxxxxx40xxxxxxxx50xxxxxxxx60  Last Name: LASTxxxx10xxxxxxxx20xxxxxxxx30xxxxxxxx40xxxxxxxx50xxxxxxxx60  Username: USERNAME10xxxxxxxx20xxxxxxxx30xxxxxxxx40xxxxxxxx50xxxxxxxx60  Password: a | | |
| **Procedural Steps:** | Launch Chrome and navigate to <https://demo.guru99.com/test/newtours>  Click on the REGISTER link in the navigation bar  Once the page <https://demo.guru99.com/test/newtours/register.php> has loaded  Populate the form with the provided input specifications leaving blank the fields not specifically mentioned  Click SUBMIT | | |
| **Expected Results of Case:** | The First Name, Last Name, and Usernames are displayed on the <https://demo.guru99.com/test/newtours/register_sucess.php> page as they were entered in the registration form | | |
| **ACTUAL RESULTS** | | | |
| **Output Specifications:** | Dear FIRSTxxx10xxxxxxxx20xxxxxxxx30xxxxxxxx40xxxxxxxx50 LASTxxxx10xxxxxxxx20xxxxxxxx30xxxxxxxx40xxxxxxxx50,  Thank you for registering. You may now sign-in using the user name and password you've just entered.  Note: Your user name is USERNAME10xxxxxxxx20xxxxxxxx30xxxxxxxx40xxxxxxxx50. | | |

Text

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A picture containing calendar

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DEFECT REPORTING FORM

**DEFECT ID: MSL4D\_001**

**TITLE: Able to register account without data COMPONENT: Registration**

**REPORTED BY: Mandie Livingston SUBCOMPONENT:**

**REPORTED ON: VERSION:**

**PLATFORM: macOS RESOLUTION PRIORITY:**

**OPERATING SYSTEM: Big Sur 11.6.5 RESOLUTION SEVERITY:**

**RELATED TEST CASE IDS: MSL4\_004 CONSISTENCY:**

**DEFECT SUMMARY:**

**Users can successfully register accounts without supplying a username and password**

**STEPS TO REPRODUCE:**

**Navigate to page** [**https://demo.guru99.com/test/newtours/register.php**](https://demo.guru99.com/test/newtours/register.php)

**Do not fill in the form**

**Click the Submit button**

**COMMENTS:**

**Accounts should not be able to be created without providing a username and password**

**ATTACHMENTS:**

1. Graphical user interface, website

Description automatically generated

2.

**For evaluators use only**

**DEFECT STATUS: \_\_\_\_\_\_\_\_\_APPROVED \_\_\_\_\_\_\_\_\_ REJECTED**

**REASON:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DEFECT REPORTING FORM

**DEFECT ID: MSL4D\_002**

**TITLE: Fields accept more characters than they save COMPONENT: Registration**

**REPORTED BY: Mandie Livingston SUBCOMPONENT:**

**REPORTED ON: VERSION:**

**PLATFORM: macOS RESOLUTION PRIORITY:**

**OPERATING SYSTEM: Big Sur 11.6.5 RESOLUTION SEVERITY:**

**RELATED TEST CASE IDS: MSL4\_005 CONSISTENCY:**

**DEFECT SUMMARY:**

**Three fields on the registration form (First name, Last name, and Username) accept 60 characters but only save 50.**

**STEPS TO REPRODUCE:**

**Navigate to** [**https://demo.guru99.com/test/newtours/register.php**](https://demo.guru99.com/test/newtours/register.php)

**Populate the following fields with the following data:**

**First Name: FIRSTxxx10xxxxxxxx20xxxxxxxx30xxxxxxxx40xxxxxxxx50xxxxxxxx60**

**Last Name: LASTxxxx10xxxxxxxx20xxxxxxxx30xxxxxxxx40xxxxxxxx50xxxxxxxx60**

**Username: USERNAME10xxxxxxxx20xxxxxxxx30xxxxxxxx40xxxxxxxx50xxxxxxxx60**

**Click submit**

**Notice on the** [**https://demo.guru99.com/test/newtours/register\_sucess.php**](https://demo.guru99.com/test/newtours/register_sucess.php) **page that the First Name, Last Name, and Username values displayed to the user are only 50 characters long.**

**COMMENTS:**

**Because the only fields that can be verified on the register\_success.php page are First Name, Last Name, and Username I decided that I would only be able to reliably test and verify those fields.**

**ATTACHMENTS:**

1. Graphical user interface, text, application, email

Description automatically generated

2.

**For evaluators use only**

**DEFECT STATUS: \_\_\_\_\_\_\_\_\_APPROVED \_\_\_\_\_\_\_\_\_ REJECTED**

**REASON:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**DEFECT ID:**

**TITLE: COMPONENT:**

**REPORTED BY: SUBCOMPONENT:**

**REPORTED ON: VERSION:**

**PLATFORM: RESOLUTION PRIORITY:**

**OPERATING SYSTEM: RESOLUTION SEVERITY:**

**RELATED TEST CASE IDS: CONSISTENCY:**

**DEFECT SUMMARY:**

**STEPS TO REPRODUCE:**

**COMMENTS:**

**ATTACHMENTS:**

1.

2.

**For evaluators use only**

**DEFECT STATUS: \_\_\_\_\_\_\_\_\_APPROVED \_\_\_\_\_\_\_\_\_ REJECTED**

**REASON:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_