

QA- 114: Automation using Selenium (L1)

Introduction This introductory course is designed to familiarize testing professionals with the basics of testing web applications using Selenium. Testers can build, enhance, and maintain scripts using both the Selenium IDE and the Selenium 2 WebDriver.

Target Audience The target audience is quality group with in Nagarro, for learning basics of Selenium IDE and Selenium 2 WebDriver.

Duration **Full** **Partial (For fast track completion)**

(Including Assignments) **49 Hours** **NA**

Pre-requisite Basics of Java and working knowledge on eclipse IDE. For candidates not having any experience of Java or Eclipse IDE, links for learning these topics are also included as optional topics in course pathway.

Course Material

- Videos: <http://www.qtpselenium.com/>
- Online tutorials: <http://www.qtpselenium.com/>

Pathway

**** Mandatory**

Topic	Description	Hours	Book	Media
Selenium IDE**	Overview of Selenium IDE and working with features of IDE	05		Watch "Training Video -10"and Self Practice
Selenium WebDriver-	Introduction, configuration	01		Watch "Training Video -11"and Self Practice



1**	and basics of Web driver		
Selenium WebDriver- 2**	Working with web element identifiers	02	Watch “Training Video -12”and Self Practice
Selenium WebDriver- 3**	Working with web page controls, objects and links	02	Watch “Training Video -13”and Self Practice
Selenium WebDriver- 4**	Managing waits and handling windows and pop-ups	02	Watch “Training Video -14”and Self Practice
Selenium 2.0 Features – 1**	Working with Action class, handling AJAX, Webtable, Frames and javascript alerts	03	Watch “Training Video -15”and Self Practice
Selenium 2.0 Examples/Scenarios**	Real world scenarios and examples	06	Watch “Training Video -17”and Self Practice
Working with Chrome driver**	Configuration and issue resolution with Chrome driver	.5	Watch “Training Video -37”and Self Practice
Working with IE driver**	Configuration and issue resolution with IE driver	.5	Watch “Training Video -38”and Self Practice
Java Introduction	Basics of Java and Eclipse	01	Watch “Training Video -1”and Self Practice
Loops, Arrays and Functions	Java working with condition statements and loops	01.30	Watch “Training Video -2”and Self Practice

Assignments



Exercise 1 Automation of test scenarios with Selenium IDE**(04 Hrs) Prerequisites**

1. Download and install latest released version [2.5.0](#) of Selenium IDE.
2. Install Firebug
3. Register in www.pepperfry.com

Test Scenario

1. Launch Firefox and open Selenium IDE.
2. Type the value for our Base URL www.pepperfry.com
3. Turn on the recording in Selenium IDE (if it is not on by default).
4. Now in Firefox, navigate to www.pepperfry.com.
5. Parameterize your login credentials with customized user-extension and XML.
6. Try to login with invalid credentials.
7. Verify the invalid login.
8. Capture the screenshot for invalid login and save it in **C:\SeleniumIDE** directory.
9. Now login with valid credentials.
10. Assert the successful login.
11. Select Appliances >> Air Conditioners category.
12. Enter the price range (10000 - 40000) and click search. Enter the price range using variables (Echo, StoreEval and StoredVars).
13. Sort the list of items by price (Lowest Price First).
14. Add the two cheapest items in wish list (Handling JavaScript Alerts).
15. Move to wish list and assert the selected items.
16. Delete one of the items from wish list (Handling JavaScript Alerts).
17. Add the remaining item to cart.
18. Assert cart for price of selected item.
19. Empty cart and Logout

After finishing your recording:

1. Stop recording



2. Save the test case as HTML.
3. Run the test case
4. Review the test case and fix any errors
5. Save the reviewed test case

Concepts to be used

1. Inserting commands in between script (See the list of commonly used commands below).
2. XPATHS (use firebug to get XPATHS) and other locators.
3. Wait Commands
4. Verification and Assertions
5. User-extension.js in Selenium IDE
6. Echo, StoreEval and StoredVars Demystified
7. Extracting all values of dropdown.
8. Parameterize your IDE test cases with customized use extension and XML.
9. Handling JavaScript Alerts
10. Capturing screenshots from Selenium IDE

Exercise 2 Automation of test scenarios with Selenium WebDriver.

(20 Hrs) Case Description

<http://www.pepperfry.com/> is an online shopping site. We need to develop automation script using selenium to test a couple of functionalities.

Test Scenario 1:

Marks: 30

- Register in www.pepperfry.com.
- Now the user logs in with the newly created login credential.
- After login the user selects category Furniture category>Sofa Sets from the Menu Items.
- The user further narrows down his search by: Sort by Newest and Brand “Mudra”



- The User then navigates to 2nd page and gets the list of all the items listed in the page.
- The user then selects “Saffron Elite Sofa Set”.
- In the product detail page, select quantity as 1 and adds to cart.
- The user clicks on “My Cart” link.
- Verify element added.
- In the Order Summary page, the user clicks on “Continue Shopping”.
- Search for another product using search box for a particular department. Select any category from auto populated list in the search box for a particular department.
- Verify search result.
- Select another product and add to cart
- Again the user clicks on “Proceed to secure checkout” button and on order page, verify the total no. of items.

Exercise a

Create automation script using selenium web driver and Java as scripting language to test the above end to end flow.

Concept to be used:

- Use of pop-up handling concept for the sign –up pop window.
- Sign up.
- Print messages
- Screenshot of the home page after login
- Use xpath and other different locators
- Verify that page navigation is working.
- Create custom X path
- Use action class to scroll down the list of items in a page.
- To select any product, list out all the items in that page and then select from the list.
- Use implicit and explicit wait



Test scenario2:

Marks:20

- In the Home page, click on Action Menu item.
- From the products listed, right click on any product and open it in a new tab.
- Then click on Bids No hyperlink.
- Verify the No. of bids from the list in pop-up using dynamic elements handling.

Exercise b

Create automation script using selenium web driver and Java as scripting language (JAVA class file) to test the above flow.

Concept to be used:

- Dynamic data handling.
- Handle new tab and verify data in the new tab.

Exercise c

Running scripts on Chrome and IE in addition to Firefox.

- All scripts are running on Firefox, Chrome and IE
- Selecting any browser type should be configurable.
- List down challenges faced in executing script on multiple browsers

Evaluation Criteria

- Script Completeness and Correctness
- Script should be in running condition
- All required selenium concepts has been used while developing the scripts.
- Presentation Skills

