

SELENIUM – WebDriver

Duration 7 Days

Program Overview

This program focuses on how to automate web application testing using Web Driver API. In this program, participants will learn how to make use of various effective Web Driver API classes to write effective & powerful test scripts.

Prerequisite Skills

Good knowledge of Software Testing
Basic knowledge of Web Applications, HTML, CSS and JavaScript
Fair knowledge of Programming Concepts, OOPs Concepts
Good Knowledge on Automation testing

Day 1

Introduction to Visual Studio & C#

OOPs concepts.
Datatypes in C#
First C# program
First C# Project
Function Return Types
While Loop & For Loops
Practical Examples with loops
Usage of loops in Selenium
Call by reference and Value
Global Variables
Constructors
Static and Non-Static Variables
Static and Non-Static Functions
Creating Objects in C#
Usage of Inheritance in Selenium
Object Class
Example on inheritance

Day 2

Understand how to debug a program

package management
Using NuGet
Basics of software development principles and standards
Code readability
Re-usability
Coding standards
GIT Introduction
Basics of Git
using Git in Visual Studio
Pull request
Resolving merge conflicts

SELENIUM WEB DRIVER PART-1

Why WebDriver?
Downloading WebDriver DLLs and configuring in Visual Studio
Architecture of Selenium WebDriver
WebDriver Interface in Selenium 3.0
Drivers for Firefox, IE, Chrome, iPhone, Android etc
Usage of WebDriver interface
First Selenium Code
Working with Chrome and IE
WebDriver Desired Capabilities Class
Proxy settings with WebDriver/Working with Proxy Servers

SELENIUM WEBDRIVER PART-2

Inspecting elements in Mozilla, Chrome and IE
Concept of Firefox profile
What is Firefox profile
Why we need Firefox profile
HTML language tags and attributes
Various locator strategies
WebElement Interface
Identifying Web Elements using id, name, class
Finding XPaths to identify
Implicit Wait
Absolute and partial XPaths
Creating customised XPaths without Firepath
CSS Selectors
Generating own CSS Selectors
Performance of CSS Selectors as compared to XPath
What is class attribute?
Handling Dynamic objects/IDs on the page

Working with different browsers without changing code

Day 3

SELENIUM WEBDRIVER PART-3

Managing Input fields, Buttons
Managing/Identifying Links with XPath/CSS selectors
Get Attribute Function
Concept of list
Extracting more than one object from a page
Extracting all links of a page/Bulk extraction of objects
Extracting limited objects from a web page
Extracting objects from a specific area of a web page
Finding response headers/response code
Finding whether object is present on page or not
Hidden components - isDisplayed function
Clicking and checking links
When you don't have common XPath

Day 4

Method 1-Find the box
Method 2-Pattern in xpath
SELENIUM WEBDRIVER PART-4
Handling drop down list
Select Class in Selenium API
Managing radio buttons and Checkboxes
Explicit wait
Alert management
Taking Screenshots of the web pages
How to Google out errors-Self sufficiency
SELENIUM WEBDRIVER PART-5
Popup Handling
Managing different Windows
Close and Quit -Difference
Concept of WebTables
Dynamic WebTable Handling
Extracting Data From WebTable
Webtables and CSS Selectors
Building custom functions for Webtables
GetRowWithCellData function

Day 5

SELENIUM WEBDRIVER PART-6

Mouse movement with Selenium - Actions class
Randomly clicking/selecting Objects - Randomising
Dragging dropping by offset
Attaching files with Selenium / Usage of AutoIT
Changing your Facebook profile picture by attaching new picture
Handling Ajax Auto suggests
Handling Frames in Web Page
Managing JavaScript alerts
Calendar Control
JavascriptExecutor and its importance

Day 6

Framework Introduction

PAGE OBJECT MODEL WITH PAGEFACTORY DESIGN PATTERN
Introduction to POM
Concept of inheritance
Concept of encapsulation
How encapsulation and inheritance are used in Page Object Model
Building Page objects
agefactory design Pattern
Handling multiple outputs from action
Building test cases and running in batch
Building reusable functions

Parameterizing testcases
Building reports - MStest
Optionally running tests
Assignment

SPECFLOW WITH CONTEXT INJECTION

Day 7

What is Context Injection
Removing redundancy with context injection
Building test cases
Sharing driver instance among all feature files using context injection
Introducing reusable functions and reusability in framework
Understanding of the Feature file
Building configuration file
Optionally running tests
Reading data from feature files
Reading data from excel file
Generating reports
Assignment