

SELENIUM COURSE SYLLABUS

Selenium Introduction

- 📄 Selenium History
- 📄 Migrating to Webdriver latest Version
- 📄 Selenium 2.0 Webdriver Architecture

Installations and Configurations with Java basics

- 📄 Java Installation
- 📄 Eclipse Installation ,confiugaration
- 📄 Selenium Jars download/Configurtion
- 📄 Brush up basic java concepts

Java OOPS Basics for Selenium

- 📄 Java first program basics
- 📄 Java program principles
- 📄 Classes, objects in Java
- 📄 Strings in Java
- 📄 Coding Basics
- 📄 Inheritance Concepts
- 📄 Practical usage of Inheritance
- 📄 Interface Concepts
- 📄 Practical Usage of Interface
- 📄 Runtime Polymorphisim

Basic Concepts for first Webdriver program

- 📄 webdriver Interface explanation and Invoking Browser
- 📄 Basic Methods of Webdriver
- 📄 How to run tests in Google Chrome
- 📄 How to run tests in Internet Explorer

Locator Techniques& Tools used

- 📄 Preview Browser Addons overview to identify elements
- 📄 Preview Installing Firebug & Firepath Addons
- 📄 Locator Techniques : Xpath identification using Firepath, Name ,ID, ClassName, LinkText,- Handling links

ADVANCED WAYS-locating objects

- ❑ writing Customized xpath Using Attributes
- ❑ Writing customized xpath Using Tagnames Traversing
- ❑ Css Selectors locators

Techniques to automate Web UI

- ❑ Handle Dynamic dropdowns with Webdriver API
- ❑ Handling Static dropdowns with Select webdriver API
- ❑ Handling Checkboxes with webdriver API
- ❑ Handling Radiobuttons with Customized xpath
- ❑ Handling Radiobutton dynamically- real time examples
- ❑ Types of Alerts present and Methods to handle them
- ❑ Handling Java Alerts using Webdriver API
- ❑ Web Elements Validation
- ❑ End to End Practise Exercise

Techniques to automate ADVANCED Web UI

- ❑ Handling Ajax/Mouse Interactions
- ❑ Actions class-real time example
- ❑ Handling Multiple Windows
- ❑ Window Handle concepts-real time example
- ❑ Live Example on working with Child windows
- ❑ Handling ul li Tags in Selenium
- ❑ How to handle Frames?
- ❑ Frames Techniques-real time example

Real Time Exercises (end to end Programming)

- ❑ Test Cases- Practise Exercise
- ❑ Exercise 1.1-Limiting Webdriver scope
- ❑ Getting Count of links in the pages, sections
- ❑ Testcases-Practise Exercise-2
- ❑ Exercise 2.1-Dynamic data in Websites
- ❑ Exercise 2.2-Dynamic Links Handling
- ❑ Exercise 2.3-Validations & checkpoints

Practical problems and Methods to Handle them with Selenium

- ❑ How to handle table Grids in webpage
- ❑ Techniques used for table grid-Real time example
- ❑ How to overcome Synchronization problems

- ❏ Maximizing window and deleting cookies
- ❏ Handling HTTPS certifications
- ❏ How to troubleshoot if its not invoking in firefox
- ❏ Killing the Process and Cookies using Selenium
- ❏ How to take Screenshots in Selenium

Data driving from Excel for feeding data

- ❏ what is Apace POI API & Download Instructions
- ❏ Excel API Methods explanation
- ❏ Program for Retrieving data from excel
- ❏ Program for Updating data back to excel

Framework Part -1 - TestNG

- ❏ Why TestNG and Its Advantages
- ❏ TestNG Installation and Setup in Eclipse
- ❏ TestNG Annotations Part
- ❏ Prioritizing the tests using TestNG
- ❏ Disabling Enabling the Testcases and putting Timeout
- ❏ Importance of TestNG xml file
- ❏ Including and excluding the Testcases from Execution with TestNG xml file
- ❏ Importance of Groups in TestNG
- ❏ Data driving Testing with TestNG
- ❏ DataProvider Annotation -Parameterizing Testcases
- ❏ Parameterising from TestNG xml file

Framework Part -2 -Data driven Framework

- ❏ Why we should not hard code the data?
- ❏ How to write Global parameters with java code
- ❏ Data driving parametrization from Properties file
- How to deal with Reusable Components

Framework Part 3 – Keyword Driven

Framework Part 4 – Modular Driven, Hybrid

Framework part 5 - ANT-Build Management Tool

- ❏ What is Build Management tool?
- ❏ Installing & configuring ANT
- ❏ Understanding Build.xml file
- ❏ Different ANT Commands to trigger framework

Framework Part -6 -Jenkins- CI Tool

- ❑ Why Jenkins? and where it going to help us in Framework design?
- ❑ Installing & Configuring Jenkins with Java and ANT
- ❑ Creating Jenkins project and integrating Existing Framework
- ❑ Running the Framework and Scheduling it from Jenkins

Framework Part 7 - Page Object Model

- ❑ What is Page object model?
- ❑ Creating Page object Constructor in classes
- ❑ Practical Exercise explaining Pageobject Model

Cross Browser Testing with Selenium Grid

- ❑ How to execute Selenium Tests Remotly
- ❑ Grid Concepts & Architecure
- ❑ Configuring Hub and Node
- ❑ Registering Nodes with Hub Server
- ❑ Desired Capabilities-Grid Program
- ❑ Execution Selenium scripts in Remote Machine
- ❑ Code and Commands