

Selenium with Java Syllabus

Overview:

Selenium with Java is a free automation testing tool for web applications. It is able to work with different browsers like Chrome, Firefox, IE, Opera and simulate human like behavior.

Selenium is able to interact with all the different elements in a webpage. It can click on them, input text,

extract text and much more. By covering all the different functionalities on your website with Selenium

tests, you will be able to quickly catch new and reappearing old bugs. This will save your time and money, we can run our test cases on various environments using selenium grid and we can integrate with project management tools for managing the projects.

Course Objectives:

- ❖ Understand Selenium IDE
- ❖ Understand web elements
- ❖ Understand JUnit/TestNG framework
- ❖ Taking screen shots using selenium
- ❖ Understand Extent Reports
- ❖ Handling multiple windows, pop-ups, alerts
- ❖ Develop Various frameworks
- ❖ Freelancers that want to make bug free websites.

Pre-requisite / Target Audience:

Basic knowledge on programming language Java

Introduction to Automation Testing

- ❖ What is Automation testing
- ❖ Advantages of Automation testing
- ❖ Disadvantages of Automation testing
- ❖ Deccansoft Software Services Selenium with Java Syllabus

Introduction to Selenium

- ❖ History of Selenium
- ❖ Why Selenium tool

- ❖ Differences between Selenium and other Tools
- ❖ Different components in Selenium

Introduction to JAVA

- ❖ Introduction to java
- ❖ Installation of Eclipse IDE
- ❖ Data types
- ❖ Control Statements
- ❖ Strings
- ❖ Arrays
- ❖ What are Functions?
- ❖ Function Input Parameters
- ❖ Function Return Types

Object Oriented Programming -1

- ❖ Class
- ❖ Variables
- ❖ Static and non-static variables
- ❖ Static and non-static functions
- ❖ Object
- ❖ Constructor

Object Oriented Programming -2

- ❖ Inheritance
- ❖ Overloading's and Overriding Functions
- ❖ Packages
- ❖ Access Modifiers
- ❖ Exception Handling

Object Oriented Programming – 3

- ❖ Collections
- ❖ File Handling

Introduction to Selenium IDE

- ❖ Installation and Introduction to IDE
- ❖ Creating first script using record and playback
- ❖ Installation of Inspector Tools and its Uses.
- ❖ Generating Scripts using different WebElements
- ❖ Handling Wait Commands
- ❖ Handling Validations Commands
- ❖ Handling Store Commands
- ❖ Limitations of IDE

Introduction to Selenium WebDriver 3

- ❖ First Program on selenium
- ❖ Verify Page title in Selenium Webdriver
- ❖ Navigation in selenium
- ❖ Radio button and Checkbox in Selenium Webdriver
- ❖ Handling Auto Suggestion
- ❖ Handling Dropdown List
- ❖ Handling File upload using Sikuli/Auto IT
- ❖ Handling Drag and Drop in Selenium
- ❖ Handling Mouse Hover, Keyword Events using Action class
- ❖ Synchronization using web driver (Waits)
- ❖ How to take screenshot using selenium
- ❖ How to Take Multiple Screenshots
- ❖ How to capture Error message using webdriver
- ❖ Handling Multiple windows
- ❖ Handling Alert Messages.
- ❖ Handling IFrames.
- ❖ Cross Browsing using selenium
- ❖ Complete details of Dynamic XPath in Selenium
- ❖ Complete details on CSS in selenium
- ❖ How to download files in Selenium Webdriver.
- ❖ Handling WebTable
- ❖ Handling WebCalendar
- ❖ How to use Logs File in selenium
- ❖ How to use Properties File in selenium

What is Framework

- ❖ What is Framework
- ❖ Types of Framework
- ❖ Use of Framework

Testing Framework

- ❖ Configure Eclipse with Selenium and TestNG
- ❖ New- Installation of TestNG
- ❖ Create First TestNG Program and Execute.
- ❖ Check reports generated by TestNG
- ❖ How to execute only failed test cases in Selenium Webdriver

Hybrid Framework

- ❖ What is data driven Framework
- ❖ Write Excel using Apache poi/JXL
- ❖ Read Excel using Apache poi/JXL

Jenkins + Git + GitHub

- ❖ What is Continuous Integration
- ❖ What is Jenkins and how it helps in CI
- ❖ Downloading and installing Jenkins
- ❖ Executing simple batch commands
- ❖ Scheduling time for test execution.
- ❖ Executing Selenium Project builds with ANT
- ❖ Build Triggers
- ❖ Mailing if build fails
- ❖ Configuring/Scheduling Maven Project in Jenkins
- ❖ Downloading and installing GIT
- ❖ Installing GIT and GITHUB plugins for Jenkins
- ❖ Configuring ssh host keys for GIT and Jenkins
- ❖ Git Bash commands and operations
- ❖ Uploading project to GIT using GIT Bash
- ❖ Cloning projects
- ❖ Creating branch/forks
- ❖ Configuring/Scheduling remote Git maven project in Jenkins

Page Object Model

- ❖ What is Page Object Model
- ❖ When to use POM
- ❖ Examples to POM
- ❖ POM using Page Factory
- ❖ Sample Examples for POM.

Cucumber:

- ❖ When to use Cucumber
- ❖ Examples to Cucumber
- ❖ Attachment of Cucumber with POM using Page Factory
- ❖ Sample Examples for Cucumber.

Real-time Project involving most of the above concepts with following will be provided

- ❖ Product Abstract Document
- ❖ Requirement Specification Document
- ❖ Step-by-Step procedure for building the project from ground up
- ❖ Complete Source Code
- ❖ Database Connections and comparing data in Database.
- ❖ Instructions to Setup the Project on a Testing box
- ❖ Instruction to Deploy using project management tools

At the end of the course participants will be able to

- ❖ Understand about automation testing
- ❖ When and why to use automation testing
- ❖ Understand about java programming language
- ❖ About selenium components and how to use them on web applications
- ❖ Understand about Project management tools.