

Course content for Java and Selenium

Overall duration : 35 hrs

Who is this Course for?

In this course we will teach you the most practical things required for you to get and survive a automation testing job.

This is a perfect course for those who are:

- Software Testers who wants to start with automation testing
- Software Testers who wants to get an automation testing job
- QA engineers
- Test leads/managers
- Experienced professionals from IT or Non-IT background having basic knowledge of software testing and wants to explore automation testing skills.
- Those who want to learn automation testing process and frameworks

JAVA Course

Course : 1 : Introduction

- Installing JAVA
- Installing Eclipse
- Features of Java
- Why Java for Selenium
- First Eclipse Project
- First Java program
- Concept of class file
- Datatypes in Java
- If statements

Course : 2 : Loops, Arrays –

- While Loop, For Loop
- Practical Examples with loops
- Using Loops in Selenium
- Single Dimensional Arrays
- Practical usage of arrays in Selenium
- What are Functions?
- Function Input Parameters
- Function Return Types

Course : 3 : Packages, Access Modifiers/

- Creating Packages
- Exception handling with try catch block
- Importance of exception handling
- Different Types of Exceptions
- Need of exception handling in Selenium framework

Course : 4 :Collection API

- Introduction to Collections API
- ArrayList Class

Course : 5 : String, file handing, log4j

- String class and functions
- Reading Properties File in Java
- Log4j API for Logging
- Usage of Log4J in Selenium

SELENIUM WebDriver

Course Outline – Selenium Advance

Test Design

Test Design considerations at a glance

Locators strategy with other plugin's (WebDriver Element Locator, Firebug, FirePath, CSS Selector and Page Object Generator)

WebDriver concepts

Why WebDriver?

Downloading and configuring webdriver in eclipse

WebDriver Interface

First Selenium WebDriver Code

Handling Links with WebDriver

Identifying WebElements using id, name, linkname, class, xpath, tagname etc

Handling Input Box/Buttons

Handling WebList

Handling Radio Buttons, CheckBoxes

Capturing screenshots with WebDriver
Introducing wait (implicit and Explicit Waits)
WebDriverWait Class
Handling JavaScript alert messages with Selenium

Dynamic WebTable Handling
Extracting Data From WebTable
Working with Calendar using Selenium
Handling Ajax Autosuggest
Working with Iframes
Handling FireFox Profiles
Handling SSL certificate errors

Page Object Model

What is POM

Advantages of POM

Page Factory class

Implementing POM for a project

Integrating POM with TestNG

Cross Browser Testing on cloud (Multiple platforms/Browsers) in TestingBot/BrowserStack

Creating tests in different platforms and browsers

Creating and running Selenium Tests in TestingBot/BrowserStack

Headless Browser Testing(PhantomJS)

What is headless browser testing?

Advantages with Headless browser testing.

Designing and running tests using Phantom JS

BDD Automation

Cucumber Introduction

Cucumber with Selenium WebDriver

DataTable with cucumber

Sandwich Reporting

TestNg

Test Reporting using TestNG and Ant

Downloading and configuring Ant

Generating HTML reports using Ant

Building batch files using Ant and scheduling to run in an automated manner

Test Reporting using tools like TestNG and Ant

Advantages of TestNG

Installing TestNG

Annotations - @BeforeTest, @AfterTest, @BeforeMethod, @AfterMethod, @Test, @BeforeSuite and @AfterSuite etc

xml configuration

TestNG with parameters

Skipping Tests in TestNG

XSLT reports in TestNG

XML configuration

Generating XSLT reports in TestNG

And also other different reports plugin like (**Extent reporting, ATU Reports, ReportNG**)

Test Dependency Management using Maven

Advantages of Maven

Creating a Maven project

Understanding POM.xml

Importing a Maven project into Eclipse

Importing Selenium Jar files to Maven

Running the Maven tests

Selenium Grid with Docker

What is Docker

How to do setup with Selenium grid with Docker

Run the sample tests with Docker

Complete Implementation of a end to end framework using POM

Continuous Integration using Jenkins

Introduction to continuous integration and configuring Jenkins

Creating a Jenkins project

Creating jobs in Jenkins

Refresh the concepts on selenium

1. Best Practices in Test Automation
2. Real time challenges faced in automation.
3. Sample Interview questions and the answers
4. Resume Guidance

