



Java Selenium



About Course

Selenium is a browser automation framework. It provides several tools and APIs for automating user interaction on pure HTML and JavaScript applications in browsers such.. [Read More](#). However, Selenium does not support rich internet application (RIA) technologies such as Silverlight, Flex or Flash, and JavaFX.

SELENIUM WITH JAVA

CURRICULUM

1 JAVA

Introduction to Java

Introduction to Java Programming Language, Uses of Java language, Java Syntax Rules & Coding Standards, Java Environment Setup, Write & Execute first Java Program, And Write Java Programs using Eclipse IDE

2 Java Programming for Selenium

Overview of Java Programming, Java Modifiers, Data Types, Variables, Operators, Flow Control, Arrays, String Handling, File Handling, Exception Handling, and Methods. Java OOPS: Inheritance, Polymorphism, Abstraction, and Encapsulation.

3 Java Program Structure and Syntax

Java Programming Structure, Writing Comments, Declaring Methods, Declaring Variables,

Declaring Constants, Print Statements, usage of Operators, Writing Conditional Statements, Writing Loop Statements and Calling methods

4

Java Conditional and Loop Statements

Java Conditional and Loop Statements ,explains Types of Conditional statements in Java, Types of Conditions and usage of conditional statements. If statement and switch statements in Java with examples. Java loop structures, for loop, while loop, do while loop and enhanced for loop with examples.

5

Strings and Arrays in Java

Strings and Arrays in Java, explains String handling in Java, Creating Strings, String Concatenation, and String Comparison. Array declaration, types of Arrays, print Array, copy Array, Array methods and Advantages & Disadvantages of Arrays.

6

Input Output Operations and File Handling

Input and Output operations and File handling in Java, Explains reading different types of input and displaying output on the console.

7 Collections Framework

Introductions of Collections

Types of collections

Generic -List, Dictionary, Stack and Queue

Non Generic- ArrayList, HashTable, Stack and Queue

8 Introduction of Selenium

What is Automation Testing

Use of automation Testing

Tools for Automation Testing

Why automation is important for you career?

What is Selenium.

Advantage of Selenium.

History of Selenium.

Component of Selenium.

Architecture of Remote Control.

Architecture of WebDriver.

Architecture of GRID.

Differences between API's Vs GUI's

9 Selenium IDE:

Selenium IDE Introduction

Record and Playback with Firefox and Chrome

- Debugging in Selenium IDE Script
- Introduction Katalone Studio
- Record and Playback through Katalone Studio

10 Set up Eclipse:

- Download and install java
- Download and start Eclipse
- Download and configure WebDriver java client
- Set up a project
- Create packages
- Create a First Java test case
- Import WebDriver Source file

11 WebDriver:

- WebDriver Interface
- WebElement Interface
- Launching Firefox browser

12 Browser & Navigation Commands:

- How to Open a URL
- Verify Page title
- Strategy to get the Page Source
- Difference between Close & Quit

- Ways to Navigate Back & Forward
- How to Refresh Page
- Another way of Navigating to specific Page

13 Locators:

- What are locators.
- HTML Basics.
- HTML language tags and attributes.
- ID, Name, Xpath, CSS etc.
- Difference between Absolute & Complete Xpath.
- Finding your first element.
- WebElement Commands.

14 Element Identification:

- Element Inspector in Mozilla, Chrome and IE
- Element locator tool for Firefox Locator
- Firebug&Fire Path Add-Ons in Mozilla
- Various HTML locator strategies
- XPath Helper Plug-in for Chrome
- Selection of Effective Xpath
- Handling Dynamic objects/ids on the page

15 Tables, Checkboxes & Radio buttons:

- Identify table rows and columns
- Extracting values from a cell
- Dynamically Identify Tables Data
- Select class in Selenium
- Drop Down Handle.
- Select multiple values from the list
- Select & Deselect operations by Index, Value & Visible Text.

16

Selenium Waits, Alert & Switch Windows:

- Implicit and Explicit waits
- How to use Expected Conditions with Waits
- PageLoadTimeout & SetScriptTimeout property
- Simple use of Thread Sleep
- Concept of Fluent Wait in Selenium
- WebDriverWait and its uses
- Different WaitUntil Conditions
- Ways to handle Simple, Confirmation & Prompt Alert
- Concepts of Set Interface in Java
- Difference between Window Handle & Handles
- Switching & Closing Windows, Tabs & Popup's
- Concept of window ID
- Extracting window IDs with Selenium Object reference
- JavaScriptExecutor Interface
- Captured Screenshot
- Cookies Handles

17

Action Class:

What is Action Class & What can we do with Action Class
Mouse Hover & Mouse Movement with Action
Finding Coordinates of a Web Object
Drag and Drop Action

18

Automation Framework:

What is Automation Framework
Features of Automation Framework
Benefits of using Automation Framework
Different types of Automation Framework
What is Data Driven Framework
What is Modular Driven Framework
What is Keyword Driven Framework
Apache POI API
POI Setup and Configuration
Read and Write Excel file with Apache POI
POM (Page Object Model)
Page Factory

19

Maven:

Maven Introduction
Install Maven in Eclipse IDE

Install Maven on Windows

Install Maven on Mac

How to Create a New Maven Project

How to Create a New Maven Project in Eclipse

Configuration of POM & set multiple builds

20

Jenkins:

Jenkins Introduction.

Installation & configuration of complete Jenkins setup.

Scheduling of Maven build & set multiple builds in Jenkins.

Overview of integration between Jenkins & GitHub.

Overview of integration between Jenkins & AWS

Selenium Integration with Jenkins.

21

GitHub

Introduction of GitHub and Selenium integration.

Installation of git binaries

GitHub set up in eclipse IDE

Building repository on git

Test prepare in selenium using Github

22

Automation Test Script Development (Project Based)

Analyzing Manual Test Script
Automation Test Script Development strategy
Development Test Script according to manual script

23

Interview Preparation :


Technical Interview Preparation
Mock interview Preparation
HR Session
GitHub



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