Selenium with Java

Introduction

Selenium Automation Testing is one of the most in-demand skills in the market, making it a high priority for people all around the world. However, there are many different ways to learn this skill, and not all courses are created equally. This course syllabus is designed by an industry expert with over 7 years of experience teaching automation testing. The course covers basic-level Selenium Syllabus topics like Automating a Simple Test and more advanced topics like TestNG Framework.

SYLLABUS
Selenium Course Syllabus

1. Selenium Introduction

- Course Objectives
- Different learning stages

2. Basic Installations

- Getting started with Java
- Installing Java
- Installing Eclipse
- First Eclipse Project
- First Java program
- Importing projects in Eclipse

3. Java Concepts – Basic – Selenium Course Syllabus

- Datatypes and Variables
- Operators, Loops, Arrays, and String Classes and objects
- Class constructors

4. Java Object-Oriented Programming

- Encapsulation
- Inheritance
- Polymorphism
- Abstraction
- Package and access modifiers, Exception handling

5. Collections API, Reflections API

- Introduction to Collections API
- List Interface and Array List Class
- Set Interface and HashSet Class
- Map Interface and Hash Table Class
- Reflection API usage and importance

6. File handling with Java

- Managing and Reading a Properties file
- Reading and writing XLS Files with POI API

7. Downloading Selenium, Architecture of Selenium Web driver

- Selenium 3 and 4 differences
- Downloading WebDriver Jars and configuring in Eclipse
- The architecture of Selenium Webdriver
- Browser versions with WebDriver
- Drivers for Firefox, IE, Chrome, Edge

8. Web driver commands

- Browser Commands
- Web Element Commands
- Find Elements Commands
- Check Box & Radio buttons
- Drop Down & Multiple Selects
- Web Table Handling
- Alerts and windows
- Frames

9. Locators & Xpath

- Inspect elements from the browser
- Relative & Absolute XPath

- Selectorhub and Firepath

10. Synchronization

- Implicit Wait
- Explicit Wait
- Fluent Wait

11. Action Class

- Drag & Drop
- Right Click & Double Click
- Mouse hover Action
- Robot Class

12. Automation framework

- Testing and Data-Driven Framework
- Testing and Hybrid(Keyword + Data-driven) framework
- Page Object Model

13. Selenium WebDriver, TestNG, and Maven

- Install Testing
- Testing Annotations
- Testing Parallel Execution
- Testing vs Junit
- Testing Data providers
- Maven Introduction
- Install Maven
- Create a new Maven Project

14. GIT, GITHUB Integration

- Introduction to GIT
- Installing Git
- Git Commands and Operations