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JOB ORIENTED JOIP INTENSIVE PROGRAM

Selenium

+ core Java

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Selenium + core Java

Selenium Web Driver with Java

Course Objectives

This course is designed to train freshers and professional testers with the basics of testing web applications using Selenium.

After completing this course, you will be able to

- You will be in a position to pick any website over the internet and can automate it
- Implement page object design pattern, data-driven testing, and Cucumber Framework
- Learn to use Selenium Grid with TestNG for parallel execution
- Understand Selenium WebDriver Architecture
- Set up WebDriver project in Eclipse and write test cases using TestNG
- Understand how to use Maven and Jenkins
- Running our automated test inside a Docker container
- Execute a project from scratch by building an automation framework and automating a few test scenarios
- Able to work on Live Projects, Manipulate, complex XPath, and CSS
- Able to justify 1-5 years of your existing experience in Selenium

Participants

- Manual Testers/freshers
- Testers with no java programming experience looking to gain WebDriver experience.

Automation Basics

- Fundamentals of Test Automation
- What are the advantages of automation testing?

Introduction to Selenium

- What Selenium is and how it is used in Real-time
- Features of Selenium

Selenium IDE

- Installing IDE
- Building Test Scripts
- Running Test Scripts
- Locating Elements on the web page
- Limitations of Selenium IDE

Web Driver Basics

- Selenium Web Driver Overview
- Configuring WebDriver in Eclipse
- WebDriver Architecture
- Web Driver Drivers
- WebDriverManager
- Traditional Locators
- Relative Locators
- Handling Web elements
- Running tests in multiple browsers
- Wait Strategies
- Handling AJAX controls
- Handling JavaScript alerts, prompts, and confirmations

WebDriver Intermediate

- Handling Multiple frames
- Handling Multiple windows
- Capturing screenshots
- Browser navigation
- Handling Keyboard and Mouse Events
- Handling Autosuggestions
- Handling Web Tables
- Finding Broken Links
- File upload and Download using Robot class

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TestNG

- How to Install the TestNG plug-in in Eclipse
- Various Annotations
- Assertions
- Writing Selenium test script from scratch
- Reports using TestNG

Project Details

Application Overview

- Bank project overview
- Project Description
- Tools used in the project
  (Jenkins, Maven, GitHub, Docker, and Robot Class)
- Roles and Responsibilities

Automation process

- Automation life cycle
- Identify test cases that are to be automated
- Authoring the scripts
- Executing the scripts
- Analyze the Reports

WebDriver - Framework

- Introduction to Various Frameworks
- Data-Driven Tests Using POI
- Reading, Writing data into Excel
- Database Connection (JDBC)
- Reading, Writing data into MySQL
- Page Object Model Framework (POM)
- Writing scripts Using Page Object Model

TestNG Framework

- Configuring Test Suites
- Passing Parameters to Tests
- Parallel Test Execution Capability
- Re-run failed test scripts
- Attributes of @Test
- Running TestNG suites from the command prompt

Build Automation Tool (Maven)

- Creating a Maven project
- Understanding of POM .xml
- Maven Integration with TestNG
- Executing Scripts using the Maven build tool

Cucumber Framework

- Overview of BDD, TDD
- Cucumber Project Setup
- Gherkin Keywords
- Working with a simple scenario
- Cucumber options
- Generating Cucumber Reports

Cucumber Advanced Features

- Working with Data table
- Page Object Model in Cucumber
- Background and Hooks examples in Cucumber

Continuous Integration Tool (Jenkins)

- Configuring Jenkins
- Executing the windows
  commands in the Jenkins Free Style project
- Creating Maven Job
- Manage Plug-ins
- Scheduling the Jobs

GitHub

- What is Version Control System
- What is GitHub
- Git commands
- Pushing our Project into GitHub
- Git vs. GitHub

Selenium GRID

- What is Selenium Grid?
- Setting up Grid – Hub, and Nodes?
- Running Test Scripts on Selenium Grid

Docker

- Docker Basics & Installation
- Integrate Selenium Grid with Docker
- Running our automated tests
  inside a Docker container

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Selenium + Fullstack Java

API Testing

- What is API testing
- Advantages of API testing
- The Types of API Testing
- API testing tools – Swagger UI and Postman
- API Testing Terminology
- SOAP vs REST
- HTTP Response codes

API Automation – REST-assured

- What is Rest Assured?
- Configure in Eclipse
- Validate Response Status and Body
- Basic Authentication

Interview Questions and Sample Resumes

Core Java

Basics of Java

- What is Java?
- Variable and Data type in Java
- Operators in java
- Control statements
- Strings and Arrays

OOPs Concepts

- Advantage of OOPs
- Classes and objects – concepts of classes, objects, Methods
- Constructors
- Package
- This keyword
- Static keyword
- Overloading methods and constructors
- Inheritance, Benefits of inheritance
- Types of Inheritance
- Method overriding, super uses
- Polymorphism
- Encapsulation
- Abstract class
- Interface
- Final Keyword
- Access Modifiers

3.Exception Handling

- Exception
- Types of Exception
- Use of try-catch block in Exception handling
- Multiple catch block
- finally block
- throw keyword
- throws keyword

4.Java Collection Framework

- Hierarchy of Collection Framework
- ArrayList class
- LinkedList class
- List Interface
- HashSet class
- HashMap and HashTable class

5.New Java Features

- Lambda Expression
- Method References
- Functional interfaces
- Streams
- Stream filter

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STUDENT TRANSFORMATION STAGES

Student's Enrollment → 8Hours JOIP Training → Mock Interview → Resume Preparation → Interview Schedule → 3-6 Months Internship → Interview Schedule → JOB

JOB

OUR STUDENTS ARE PLACED IN

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