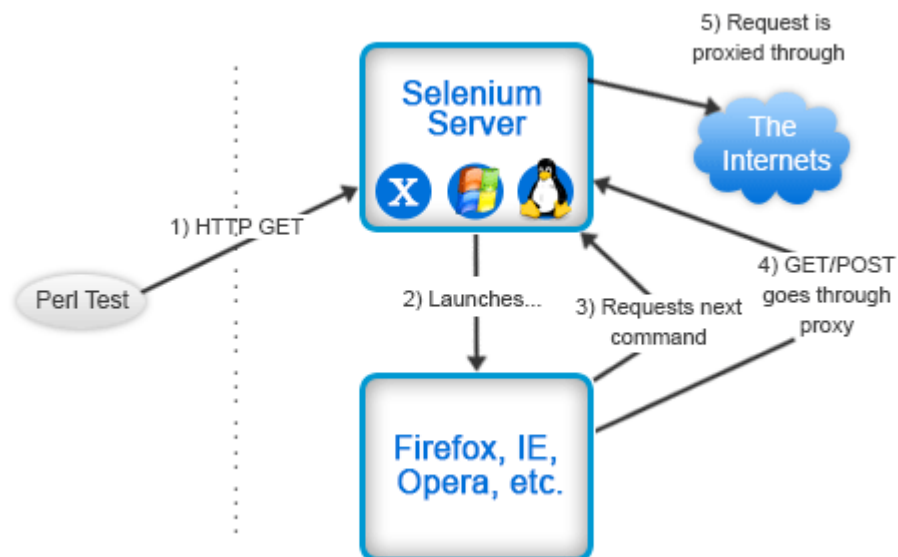




Selenium V3.0

WD | TestNG | Grid | Jenkins | Maven | DB | Framework





Jenkins



Module : 01 # Java Course Contents

1. Introduction to java

- What is java?
- Programming language hierarchy
- Java files
- Camel casing
- Identifiers
- Java Components naming standards
- Java source file declaration rules
- First Java program

2. Classes and Objects

- Introduction to Classes and objects
- Understanding Java Heap
- Creating first Class and Object

3. Variables and Operators

- Introduction to Variables and their data types
- Primitive and Non-primitive variables
- Variable Casting
- Object references
- Java Operators

4. Java Methods and their communication

- Introduction to methods
- Method arguments and return types
- Pass by Value
- Encapsulation
- Getters and Setters



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5. Loops and Arrays

- If-else statement
- While loop
- Do-while loop
- For loop
- Enhanced for loop
- Arrays – 1D and 2D
- Reference in an array

6. Understanding Java-API

- Understanding API using ArrayList
- ArrayList fundamentals
- Using Java Library
- Using Packages
- Using HTML- API docs

7. Inheritance and Polymorphism

- Understanding inheritance and inheritance tree
- Methods overriding and the rules
- IS-A and HAS-A relationship
- Super class Vs Subclass
- Method Overloading
- Access Modifiers

8. Abstract Classes and Interfaces

- Abstract classes and methods
- Mother of all classes – “Object class”
- Polymorphic reference
- Object reference casting
- Deadly Diamond of Death
- Interfaces and it’s implementation

9. Garbage Collection and Constructors

- Concept of Stack and Heap
- Methods and classes on Stack and Heap
- Constructors
- Constructor Overloading
- Constructor chaining and this() keyword
- Garbage collection eligibility



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10. Statics and data formatting

- Static methods, variables and constants
- Math class and methods
- Wrapper classes
- Auto boxing
- Data formatting and static imports

11. Exception handling

- Risky java codes
- Introduction to Java Exceptions
- Catching exceptions using try/catch block
- The finally block
- Catching multiple exceptions
- Handle or Declare law of exceptions

12. Serialization and file I/O

- Saving objects state
- Writing serialized object
- I/O streams
- Serializable interface
- Deserialization
- Java IO file
- Reading/Writing a text file



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13. Collections

- Introduction to Java collections
- Concept of generics
- Lists
- Sets
- Map
- Hashmap

14. JDBC

- JDBC concepts and terminology
- JDBC package
- Creating connection to a DataBase
- Accessing and manipulating tables using JDBC
- Sql statements

Module : 02 # Selenium WebDriver3.0

1. Introduction to Selenium WebDriver

- What is WebDriver
- Exploring Webdriver java docs
- Downloading Webdriver jar files
- Open Google home page through WebDriver
- Exploring more features of WebDriver
- WebDriver Features & Examples
- Handling HTML Elements such as: Text box, Hyperlinks, Submit buttons,
- Radio buttons, Check boxes, Dropdown etc
- Finding Elements & text on a Webpage

- Printing all links and other values from a webpage and HTML Elements
- Using By class to find elements using different methods
- Implement global wait
- Running test in multiple browsers
- Firefox profile
- Running test in multiple profiles

2. Advance WebDriver Features

- Simulating keypress events such as buttons such as Enter, page up, pagedown, backspace
- Handling java script messages
- Working with online captchas
- Running the test with HTMLUnit driver
- Online Webtables
- Downloading and configuring chrome driver
- How to find Xpaths through Chrome developer tool
- Generating your own Xpaths
- What if you don't have firebug or firepath
- Handling multiple pop ups/tabs in Chrome
- Handling Mouse over Menus and Iframes

3. Ajax & Listeners

- How to handle Ajax based applications
- Browser navigate methods
- Listeners
- Mouse movements

- Explore action class mouseover method
- Working with Javascriptexecutor
 - ✓ Drag and Drop
 - ✓ Resizable
 - ✓ Handling Sliders

4. Flash Testing with Selenium WebDriver

- What is flash/flex testing
- Downloading and installing flash jar file
- Automating flash player
- Using different call methods of YouTube flash player

Module : 03 # TestNG Framework

1. Integration and Execution of Test Suite using TestNG Framework

- What is TestNg
- Installing TestNg in Eclipse
- TestNg Annotations
- Understanding usage of annotations
- Running a Test in TestNg
- Batch Running of tests in TestNg
- Skipping Tests
- Parameterizing Tests – DataProvider
- Assertions/Reporting Errors
- TestNg Reports
- Advantages over Junit



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Module : 04 # ReportNG Framework

- ReportNG is a simple plug-in for the TestNG unit-testing framework to generate HTML reports as a replacement for the default TestNG HTML reports.
- Configuring ReportNG with TestNG for HTML Reports

Module : 05 # Selenium Grid- Cross Platform & Parallel Execution

1. Cross Browser and Cross Platform Testing using Web Driver

- What is Selenium-Grid?
- How Selenium-Grid Works—With a Hub and Nodes
- Configuring Selenium-Grid
- Default Configuration
- JSON Configuration File
- Configuring Via the Command-Line Options
- Node Configuration
- Timing Parameters

Module : 06 # Robot Class

This class is used to generate native system input events for the purposes of test automation, self-running demos, and other applications where control of the mouse and keyboard is needed. The primary purpose of Robot is to facilitate automated testing of Java platform implementations. Using the class to generate input events differs from posting events to the AWT event queue or AWT components in that the events are generated in the platform's native input queue. For example, Robot.mouseMove will actually move the mouse cursor instead of just generating mouse move events.

Module : 07 # Integration of Selenium with Jenkins

In Selenium Training, Croma Campus will include the latest implementation of automation concepts like: Integration of Jenkins and Selenium Automation testing. Jenkins is a powerful and highly configurable continuous integration tool (CI) tool that is commonly used on IT projects to manage builds and releases. Selenium is a powerful suite of tools that automates web browser testing. Our training will guide you through the steps required to get you started with Jenkins and Selenium from an automation tester's perspective. During our training we will cover the following aspects:

- Installation and setup of Jenkins & Selenium project on your laptop.
- Jenkins Overview.
- Jenkins Plugins.
- Jenkins Configuration for a Java-based Project.
- Integration of Selenium and Jenkins CI.
- Reporting and Validation in Jenkins.
- Continuous integration and continuous testing

- Test Execution.
- SVN, Junit, Source Control, Ant, Maven Java integration.

Module : 08 # Data Driven & Hybrid Test Automation Framework

Covers end to end steps followed while creating the framework:

- Test Data files
- TestCore class which loads Xls file, run selenium server through code and do other initialization
- Object.Properties file to store Xpaths
- Configuration Files
- Skipping Test Cases
- Screenshot Capturing
- Emailing Test Results
- Generating Reports
- Generating Application and Selenium logs
- Running framework automation through Maven



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Module : 09 # Database Testing - Java DataBase Connectivity JDBC

- Installing MySQL Database
- Java.SqlPackage | JDBC Drivers
- Connection Interface
- Statement and Prepared Statement Interfaces
- ResultSet Interface
- Firing Select, Insert, Update and Delete queries with database using Java JDBC
- Looping the ResultSet
- Using Annotations of Junit/TestNg to establish connection with database when Using Selenium