

## Selenium Course Content

Selenium Components and Architecture Why Java for Selenium Installing Java, Eclipse First Eclipse Project and Java program Platform independence

Object Oriented Programming

Class, Object, Method, Property Concept of Inheritance Overloading and Overriding Functions Usage of Inheritance in Selenium

Creating Packages Accessing Classes and Methods Good Features of eclipse Accessing modifiers - Public, Private, Default, Protected Exception handling - try catch block and throwable class Need of exception handling in Selenium framework

Java operators

Conditional and concatenation operators Usage of loops - While Loop, For Loops Data Types

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String, Integer, Arrays Functions - Input Parameters, Return Types Local, Global, Static and Non-Static Variables Creating Objects and Object References Call by reference and Value Constructors

Java Basics

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Quick Reference

String class and functions Reading/Writing Text Files Reading Properties File in Java Concept of jar file POI API in java Reading/Writing Microsoft XLS Files Log4j API for Logging

Selenium IDE

Installing Selenium IDE Recording Script Running, Pausing and debugging Script Inserting commands in between script PATHS and installing firebug to get Pathway Commands Verification and Assertions Using Echo, Stroeve and Stored Ars

WebDriver Introduction

Why WebDriver? Selenium RC Vs WebDriver Downloading and configuring web driver in eclipse WebDriver Interface Drivers for Firefox, IE, chrome, Opera, Safari

Script Development using WebDriver

First Selenium WebDriver Code Operating with multiple browsers Introduction to Web driver Methods Using Firebug and FirePath Handling Links with WebDriver Extracting XPath and relevance of XPath Using By - id, name, linktext, class, XPath, CSS Handling Input Box/Buttons Handling WebList, Radio Buttons, Checkboxes Making your own XPath without firebug Dynamic objects and count of objects Capturing screenshots with WebDriver Handling windows and switching windows Handling frames in web pages Pop-up and alert handling Certificate error handling using WebDriver

Explicit Vs Implicit waits  
Keyboard and Mouse event handling  
Handling webdriver timeout  
Capturing screenshots

## Selenium Grid

Introduction to hub, driver  
Approaches to start/stop hub and driver  
Using grid to run tests using RemoteWebDriver  
Setting desired & Fetching actual capabilities  
Configuring node parameters and timeouts  
Hub Diagnostic Messages

## Framework Overview

Reading XPATHS, Configuration from properties  
Initialize Webdriver  
Implementing tests and batch running them  
Repeating a test with different Data  
Building utility functions  
Parameterization of tests using excel  
Controlling Execution order from excel  
Assertions and Reporting Errors  
Storing Screenshots of errors  
Generating the HTML reports  
Emailing test reports  
Creating a BAT file for project execution