Selenium Course Content

Introduction:

- Introduction to Automation
- Why and when will we go for Automation
- What is the use of Automation
- What is the difference between Selenium and QTP
- About Selenium:
- What is Selenium
- Advantages of Selenium
- Different flavors of Selenium:
- Selenium IDE
- Selenium RC
- Selenium Grid
- Selenium Web Driver/Selenium 2.0
- Selendroid

Selenium IDE Introduction:

- Downloading and Installing Selenium IDE
- Features of Selenium IDE
- Selenium IDE Icons
- Recording your first test with Selenium IDE

Selenium IDE Concepts:

- Record and playback feature in chrome & Firefox

Core Java

- Introduction To Core Java
- Environment variable configuration
- What is oops?
- What is a class and object?
- What is a main method?
- Basic Example
- Datatypes
- variables
- Operators

- Arrays
- Conditions
- If
- If-else
- If –else –If
- Nested If
- Select Case
- Looping Conditions
- For – Next
- Do – loop
- While –loop
- For Each loop
- Branching statements
- Break Statement
- Return Statement
- Continue statement
- Java Built in methods
- String Methods
- Math object methods
- Date & time methods
- Oops Concepts
- Introduction
- Class
- Object
- Static Keywords
- Constructors
- This Key Word
- Inheritance
- Super Key Word
- Polymorphism (Over Loading & Over Riding)
- Abstraction
- Encapsulation
- Abstract Classes
- Interfaces
- Working with regular expressions
- What is regular expression
- Where we will use
- Regular expression syntax

- Examples on regular expression
- Working with files
- Working with Files and I/O
- Working with Excel files
- Working with data base.
- Working with Property files
- Java Exceptions

Debugging the Scripts
- Inserting Break Points
- Watch variables
- Step Into
- Step Over
- Step Return
- Run To line
- Terminator

Locators:
- How to identify elements in webpage using Selenium
- Tools to identify elements/objects
- Firebug
- IE Developer tools
- Google Chrome Developer tools
- Locating elements by ID
- Finding elements by name
- Finding elements by link text
- Finding elements by XPath
- Finding Elements by using CSS
- Summary

Web Driver:
- Introduction & Architecture
- Webdriver vs Selenium RC
- Downloading and configuring web driver in Eclipse
- Drivers for Firefox, IE and HTML Unit driver
- First Selenium WebDriver Code
- Identify Objects using WebDriver:
- Text box, Link, Button

- Checkbox, Radio Button, Drop Down Box
- Select value, Display all values

Scripts:

- Capture screenshot(positive)
- Page scroll down using Java script
- HTML Unit Driver
- Handling Multiple Windows
- Implicit wait & Explicit wait
- Handling Ajax Auto suggests
- Handling web tables
- Handling the automation of table data
- Handling Test data in Excel sheet usinf JXL, POI files
- Handling data from text file , XML file , CSV file
- Generating test results and detailed Summary Report
- Handling Alerts, unexpected Alerts, Browser windows, Application windows & pop-ups
- Handling of multiple frames
- **Recording a video**
- **Reading content on Image & PDF files**
- IsSelected Method.
- Is displayed Method.

Actions Class:

- Draggable
- Droppable
- Mouse over
- Selectable
- Simulating Right click
- Slider

Introduction to java script executor
Usage of Java script executor
Javascript Executor.
Handling file download popup using webdriver
Handling file attachment window using -Auto IT tool Third Party Tool & Robot Class

What is a Firefox Profile

Handling Certificate issuer using FF profile

Handling proxy server and file downloading using FF profile

Introduction to Sikuli and its usage with examples

- Getting count of broken images
- WebDriver listeners

TestNG:

- Introduction about TestNG
- How to Install TestNG plugin in Eclipse
- TestNG sample script
- Writing Selenium testing script from scratch
- Creating Test suites using TestNG
- Reports generation using TestNG

Junit:

- Writing Selenium tests from scratch using Junit
- Junit Annotations
- Junit Methods
- Debugging Scripts in Eclipse
- Frequently used Selenium commands
- Syntax of each command
- Test Suites using JUNIT
- Report Using ANT Build and Junit

Customized Framework using Functions and Object Repository:

- Introduction to framework and its components
- About page design pattern
- About Hybrid frame work with POM
- Design Hybrid framework with all components

Selenium Grid:

- About Selenium Grid
- Installation
- Getting started with Selenium Grid
- How to use Grid

Final Touch: Interview Point of View Discussion on Selenium concepts.