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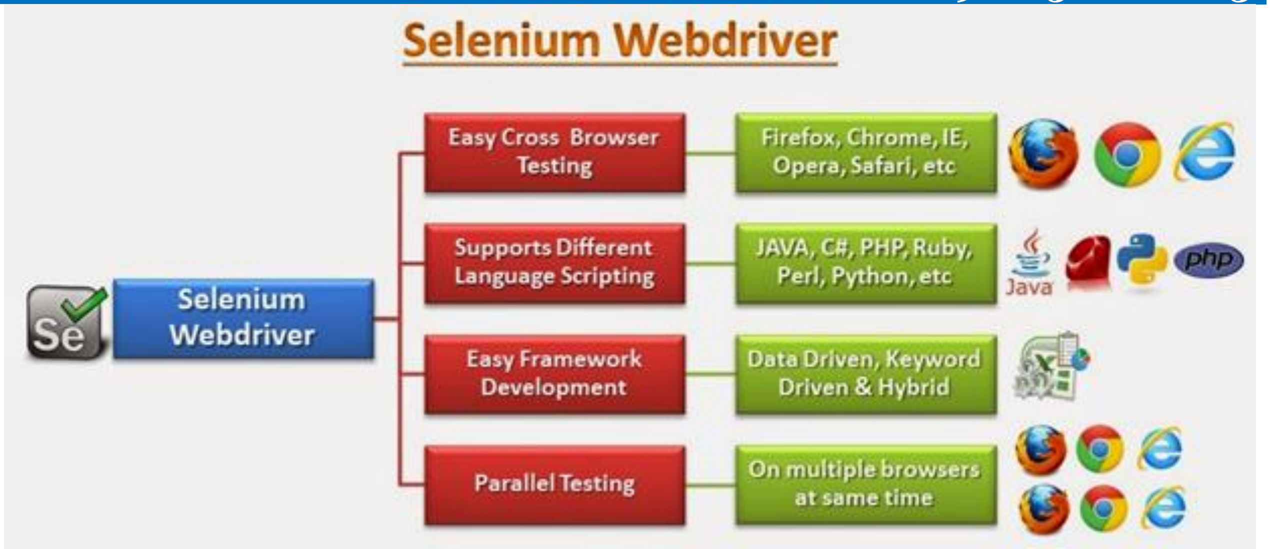
Selenium Webdriver
Se
Selenium Webdriver
Easy Cross Browser Testing
Firefox, Chrome, IE, Opera, Safari, etc
Supports Different Language Scripting
JAVA, C#, PHP, Ruby, Perl, Python, etc
Java
php
Easy Framework Development
Data Driven, Keyword Driven & Hybrid
Parallel Testing
On multiple browsers at same time

Course Summary

WebDriver is **the web automation tool** of the moment. WebDriver skills are in demand. And when you understand the WebDriver usage patterns, that this course teaches, then you can increase your automation effectiveness.

This course focuses on the information you need to get productive with WebDriver. We don't spend any time on the Selenium IDE, because you won't use that in a production environment. We don't spend any time on padding covering the architecture of WebDriver because you can find that information on the Web, and you don't need to know it, to get productive.

Throughout the course we stress, and demonstrate, self learning strategies so that you don't just learn the WebDriver API in depth, you also learn how to discover more on your own.

SELENIUM COURSE DETAILS

TOTAL DURATION : 60+ HRS
TOTAL MODULES : **22**

MODULE HIGHLIGHTS

- Core java
- Web driver
- Junit
- TestNG
- Maven
- Hybrid
- Data driven
- Key driven
- Excel interaction
- Remailer
- Grid

JAVA INTRODUCTION

Session #1

- Selenium Overview
- Installing Java
- Installing Eclipse
- Features of Java
- Why Java for Selenium
- First Eclipse Project
- First Java program
- Concept of class file
- Platform independence
- Datatypes in Java
- String class
- If statements

LOOPS, ARRAYS AND FUNCTIONS

Session #2

- Conditional and concatenation operators
- While Loop
- For Loops
- Practical Examples with loops
- Usage of loops in Selenium
- Single Dimensional Arrays
- Two Dimnsional arrays
- Practical usage of arrays in Selenium
- Drawbacks of arrays
- What are Functions?
- Function Input Parameters
- Function Return Types

OBJECT ORIENTED PROGRAMMING -1

Session #3

- Local Variables
- Global Variables
- Static and Non-Static Variables
- Static and Non-Static Functions
- Creating Objects in Java
- Meaning of static
- Why is main method static?
- Object and Object References

- Call by reference and Value
- Constructors
- Usage of Objects in Selenium

OBJECT ORIENTED PROGRAMMING -2

Session #4

- Concept of Inheritance
- Interface
- Overloading and Overriding Functions
- Example on inheritance
- Object Class
- Usage of Inheritance in Selenium

PACKAGES,ACCESS MODIFIERS/ EXCEPTION HANDLING

Session #5

- Relevance of Packages
- Creating Packages
- Accessing Classes Across Packages
- Good Features of eclipse
- Accessing modifiers - Public, Private, Default, Protected
- Exception handing with try catch block
- Importance of exception handling
- Exception and Error
- Throwable Class
- Final and Finally

- Throw and Throws
- Different Types of Exceptions
- Need of exception handling in Selenium framework

JDBC CONNECTIVITY AND SQL

Session #6

- Overview of JDBC Driver
- SQL packages/library
- Connection, Driver Manager, Statement, ResultSet – class and interface
- Data retrieval – My SQL, Oracle
- SQL Statement (DDL, DML, Join, Union, Function, View, Subquery)

COLLECTION API/REFLECTION API

Session #7

- Introduction to Collections API
- ArrayList Class
- HashTable Class
- Using ArrayList and HashTable of Collection API in Selenium framework
- Reflection API usage and importance
- Using Reflection API to make keyword driven Selenium framework

STRING,FILE HANDLING, LOG4J, /HANDLING XLS,XML FILES

Session #8

- 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
- Usage of Log4J in SeleniumNew
- Reading data from XML files using Java

JUNIT 4 FRAMEWORK / ANT

Session #9

- What is JUNIT
- Configuring Junit 4 in Project/Eclipse
- Junit 4 annotation
- Running Test in Junit
- Skipping Tests
- Parameterizing Tests
- Using Assertions
- Reporting Errors / ErrorCollector
- Batch Running - Custom Runners
- What is Ant
- Downloading and configuring Ant
- Build.xml configuration
- HTML Report generation using Ant
- Building a BAT file to run tests using ANT

TESTNG FRAMEWORK / ANT/MAVEN TESTNG INTEGRATION

Session #10

- 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
- Using TestNg in Selenium
- What is Ant
- Downloading and configuring Ant
- Build.xml configuration
- XSLT report generation generation using TestNg and Ant
- Building a BAT file to run tests using ANT
- New Topics
- Grouping test cases
- Setting priority of execution for test cases
- Putting Dataproviders for multiple tests in a single file
- Parameterizing/Sharing single dataprovider for multiple test cases
- Listeners for logging in case of FAILED, SKIPPED or PASSED test cases

- TestListener Adaptor
- Reporting multiple failures in single test case
- TestNg Maven Configuration
- Maven-surefire-report-plugin with testng
- Executing testng from maven on Command Prompt
- Generating Maven Surefire Reports
- Generating XSLT Reports with Maven
- Running testng programmatically - Without testng.xml
- Managing Multiple test Suites
- Custom report Generation using IReporter

SELENIUM IDE

Session #11

- Installing Selenium IDE
- Recording Script
- Running, Pausing and debugging Script
- Running a script line by line
- Inserting commands in between script
- XPATHS and installing firebug to get XPATHS
- Wait Commands
- Verification and Assertions
- Should I use verify or assertion
- JavaScript
- User-extension.js in Selenium IDE
- Using if statements and loops in IDE.

- Echo, StoreEval and StoredVars Demystified
- Creating your own user extensions.
- Making a function in user extension to generate random email address.
- Extracting all values of dropdown.
- Reading XML from JavaScript using DOM.
- Building SalesForce.com Test Cases
- Parameterize your IDE test cases with customized use extension and XML.
- Regular Expressions in Selenium IDE.
- Handling JavaScript Alerts
- Capturing screenshots from Selenium IDE
- Testing Flash applications with IDE - Selenium Flex API.
- Capturing screenshots from Selenium IDE

SELENIUM WEBDRIVER -1

Session #12

- Why WebDriver?
- Downloading WebDriver Jars and configuring in eclipse
- Architecture of selenium webdriver
- Drivers for Firefox, IE, chrome, iPhone, Android etc
- First Selenium Code
- Working with chrome and IE
- Selenium RC and WebDriver
- Concept of Firefox profile
- What is Firefox profile
- Why we need Firefox Profile

- Close and Quit -Difference
- Importing WebDriver documentation in eclipse
- WebDriver Desired Capabilities Class
- Proxy settings with webdriver/Working with proxy Servers
- HTMLUnit driver and desired capabilities

SELENIUM WEBDRIVER - 2

Session #13

- Firepath and firebug Add-ons installation in Mozilla
- Inspecting elements in Mozilla, Chrome and IE
- HTML language tags and attributes
- Various locator strategies
- WebDriver Interface
- WebElement Interface
- Identifying WebElements using id, name, class
- Finding Xpaths to identify
- Absolute and complete Xpaths
- Creating customized Xpaths without firebug
- Css Selectors
- Generating own CssSelectors
- Performance of CssSelectors as compared to Xpaths
- Finding xpaths/cssselectors in different browsers - Mozilla, Chrome and IE
- Objects with same id/xpath/cssSelector
- What is class attribute?
- Handling Dynamic objects/ids on the page

- Working with different browsers without changing code

SELENIUM WEBDRIVER - 3

Session #14

- Managing Input fields, Buttons and creating custom xpaths
- Managing/Identifying Links with xpaths/css selectors
- Extracting More than one object from a page
- Extracting all links of a page/Bulk extraction of objects
- Extracting Objects from a specific area of a web page
- Various strategies to test Links on a page by clicking on them one by one
- Finding response Headers/ response code
- Finding whether object is present on page or not
- Handling drop down list
- Select Class in Selenium API
- Managing radio buttons and Checkboxes
- Hidden components
- isDisplayed function
- Taking Screenshots of the web pages
- How to Google out errors-Self sufficiency
- Exercises

SELENIUM WEBDRIVER - 4

Session #15

- Implicit and Explicit waits
- PageLoadTimeout Property

- WebDriverWait Class
- WebDriver.Timeout Interface
- ExpectedCondition interface and ExpectedConditions class
- WaitUntil Condition
- Fluent Wait
- Managing Ajax based components
- Concepts of Set Interface in Java
- Window Handles
- Managing tabbed windows in IE, Chrome and Mozilla
- Managing popups in IE, Chrome and Mozilla
- Closing windows
- Default Popups
- Testing https websites / Managing certificate errors in https websites in IE, Chrome and Mozilla

SELENIUM 2.0 FEATURES - 3

Session #16

- Mouse movement with Selenium - Actions class
- Randomly clicking/selecting Objects - Randomizing
- Extracting Data From WebTable
- Dynamic WebTable Handling
- Attaching files with Selenium / Usage of AutoIT
- Changing your facebook profile picture by attaching new picture
- Handling Ajax Autosuggests
- Handling Frames in Web Page
- Handling Frames inside Frames

- Handling cookies
- More Examples on Webtables
- Webtables and css Selectors
- Building custom functions for Webtables
- Managing JavaScript alerts

SELENIUM 2.0 FEATURES - 5

Session #17

- Simulating front and back button click on Browser using selenium
- Assigning Firefox profile parameters
- Downloading files using selenium
- Selenium Javadocs
- Listeners- Using WebDriverEventListener
- Practical usage of Listeners in Selenium
- Moving a mouse on a Object and right clicking on it
- Finding Coordinates of a Web Object
- Actions class in Webdriver - NEW
- Handling CSS menu with Action class- NEW
- Handling CSS menu with JavaScriptExecutor- NEW
- JavaScriptExecutor example- NEW
- Drag, drop, native events - NEW

SELEIUM 2.0 - EXAMPLES/SCENARIOS

Session #18

- Password Encoding in selenium

- Dynamic Xpaths/Objects Handling
- Managing dynamic/unexpected popups
- Shopping cart exercise
- Navigations Controls
- Parameterizing a simple test and doing validations for each scenario
- Print names of all Facebook friends using Actions class
- Print names of all Facebook friends using JavaScriptExecutor
- Complex Registration example - parameterizing from xls file

JUNIT AND DATA DRIVEN FRAMEWORK

Session #19

- Overview of Data driven framework
- Building the Test Base Class
- Using Annotations of Junit
- Reading XPATHS, Configuration from properties file
- Initialize the Webdriver
- Building the Test Base Class
- Implementing WebDriver Implicit Wait
- Implementing tests and batch running them
- Repeating a test with different Data
- Building utility functions
- Parameterizing tests using XL Files
- Controlling Execution order from XL Files
- Assertions and Reporting Errors / ErrorCollector
- Storing Screenshots of errors

- Running the framework through ANT
- Generating the HTML reports
- Emailing test reports
- Creating a BAT file for project execution

JUNIT AND HYBRID (KEYWORD+DATA) FRAMEWORK

Session #20

- Overview of Hybrid(Keyword+Data Driven) Framework
- Building XLS File Having Test Cases and Keywords
- Building XLS File Having Test Data
- Building Base class
- Reading XPATHS, Configuration from properties file
- Implementing ImplicitWait
- Implementing the keywords using the reflection API
- Implementing tests
- Assertions and Reporting Errors
- Parameterizing tests using DataProvider and XL Files
- Repeating a test with different Data
- Running the framework through ANT
- Generating the reports
- Emailing test reports
- Creating a BAT file for project execution

TESTNG AND DATA DRIVEN FRAMEWORK WITH MAVEN, JENKINS, GRID

LIVE PROJECT

Session #21

- Overview of Data driven framework
- Building the Test Base Class
- Using Annotations of TestNg
- Reading XPATHS, Configuration from properties file
- Initialize the Webdriver
- Implementing WebDriver Implicit Wait
- Implementing tests and batch running them
- Repeating a test with different Data
- Implement logging with Log4J API
- Building utility functions
- Parameterizing tests using XL Files
- Controlling Execution order from XL Files
- Assertions and Reporting Errors
- Storing Screenshots of errors
- Running the framework through ANT
- Generating the XSLT reports
- Creating a BAT file for project execution
- Emailing Test Reports
- Managing huge data in xls
- Reporting multiple failures in single test
- Maven, Grid and Jenkins integration
- Creating maven project datadriven project
- Setting up grid, hub and nodes
- Running test cases in test suites parallel on grid

- Generating logs for each test case separately in Grid environment
- Uploading project on git
- Running / scheduling project builds through Jenkins
- Custom reporting in XLS file

TESTNG AND HYBRID (KEYWORD+DATA) FRAMEWORK

LIVE PROJECT

Session #22

- Overview of Hybrid Framework
- Building XLS File Having Test Cases and Keywords
- Building XLS File Having Test Data
- Building Base class
- Reading XPATHS, Configuration from properties file
- Implementing WebdriverWait
- Implementing the keywords using the reflection API
- Implementing tests
- Assertions and Reporting Errors
- Parameterizing tests using DataProvider and XL Files
- Repeating a test with different Data
- Running the framework through ANT
- Generating the reports
- Emailing test reports
- Creating a BAT file for project execution