

Selenium Syllabus

- ❖ Introduction
 - Test Automation for Web Applications
 - To Automate or Not to Automate?
 - Introducing Selenium
 - Brief History of The Selenium Project
 - Supported Browsers and Platforms
 - Flexibility and Extensibility

- ❖ Different types of Selenium
 - Selenium IDE and Architecture
 - Selenium RC and Architecture
 - Selenium WebDriver and Architecture
 - Selenium Grid and Architecture
 - Advantages and disadvantages of each type

- ❖ Selenium-IDE
 - Introduction
 - Installing the IDE
 - Opening the IDE
 - IDE Features
 - Building Test Cases
 - Running Test Cases
 - Selenium Commands – “Selenese”
 - Script Syntax
 - Test Suites
 - Commonly Used Selenium Commands
 - Verifying Page Elements
 - Assertion or Verification?
 - Matching Text Patterns
 - The “AndWait” Commands
 - The waitFor Commands in AJAX applications
 - Sequence of Evaluation and Flow Control
 - Store Commands and Selenium Variables
 - Alerts, Popups, and Multiple Windows
 - Debugging
 - Writing a Test Suite
 - Format
 - Troubleshooting

- ❖ Locators and its types
 - Different types of Locators
 - Locating by ID
 - Locating by Name

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- Locating by XPath
- Learning relative and absolute XPath
- Locating by CSS
 - getElementById
 - getElementByName
 - getElementByClass
 - getElementByAttribute
- Locating by DOM and its type

- ❖ Core Java
 - Classes and Object concepts
 - Variables and Functions
 - Inheritance
 - Encapsulation
 - Method Overloading
 - Method Overriding
 - Dynamic and Static binding
 - Final, Static and Finally
 - Exception Handling
 - Different kind of exceptions
 - **Reflection class API Java**

- ❖ Selenium 2.0 and WebDriver
 - Selenium 2.0 Features
 - The Selenium Server – When to Use It
 - Setting Up a Selenium-WebDriver Project
 - Migrating from Selenium 1.0
 - Getting Started With Selenium-WebDriver
 - Introducing WebDriver's Drivers
 - Commands and Operation

- ❖ WebDriver: Advanced Usage
 - Explicit, Implicit and Fluent Waits
 - Integration with Excel
 - Integration with Notepad
 - Integration with JDBC database
 - Taking screenshot
 - Integration with Outlook
 - Popup's and child window access

- ❖ Test predefined Framework
 - TestNG introduction
 - Different annotations in TestNG
 - Parameterization using TestNG

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- POM Concept

- ❖ Framework Designing from scratch
 - Data Driven Framework
 - Keyword driven framework
 - Hybrid Framework
 - Modular Framework

- ❖ Selenium-Grid
 - Implementation using TestNG

- ❖ Integration with DevOps tools
 - Jenkins
 - Ant