

SELENIUM Introduction

- ✓ What is automation testing
- ✓ When to go for automation
- ✓ Different Automation Tools (vendor & open source tools)
- ✓ Advantages of Automation
- ✓ Criteria for Automation
- ✓ Difference between Manual Testing & Automation Testing process

Introduction to selenium

- ✓ What is selenium tool
- ✓ Use of selenium tool in automation
- ✓ Features of selenium tool
- ✓ Differences between selenium and other Tools

Selenium Components

- ✓ Selenium IDE
- ✓ Selenium Web Driver 3
- ✓ Selenium Grid

Configuration of Selenium IDE & Dev.Scripts

- ✓ Recording the scripts in IDE
- ✓ Understanding of the objects identification (id,name)
- ✓ Difference between Test case and test suit
- ✓ Language supported while recording
- ✓ Synchronization in selenium IDE(Wait commands)
- ✓ Whwn to use Selenium IDE
- ✓ How to put validations 9assert,verify)
- ✓ How to read text/values from webpage (store commands)
- ✓ How to handle mouse ,keyboard events

- ✓ Limitations of IDE
- ✓ We can Run the Recording scripts against other browsers by using selenium Web driver

Configuring Eclipse IDE for java Selenium

- ✓ How to create new java project
- ✓ How to create a new java class
- ✓ Running java class
- ✓ Viewing the results of java program

Learning java

- ✓ Introduction to java programming
- ✓ Data Types in java
- ✓ Primitive Data types
- ✓ Wrapper Classes
- ✓ Declaring Variables
- ✓ Writing java program and running

Conditional Statements

- ✓ If condition
- ✓ If else condition
- ✓ If else if condition (nested if)
- ✓ Switch case statement
- ✓ Examples for all the above conditions

Loop Statements

- ✓ While loop
- ✓ Do While
- ✓ For loop
- ✓ For each loop
- ✓ Examples for all the above loops

Array

- ✓ How to declare array

- ✓ How to store values in array
- ✓ Reading values in array

Exception , error handling

- ✓ What are exceptions ,errors
- ✓ How to handle exceptions in the program
- ✓ Using try and catch blocks
- ✓ Types of Exceptions
- ✓ Using of throws
- ✓ Throw
- ✓ Throwable

Object Oriented programming Class

- ✓ What is class
- ✓ What are fields and method
- ✓ How to create object for the class
- ✓ How to access fields and methods in the class
- ✓ Constructors
- ✓ What is abstract,final class
- ✓ Variable Types (instance ,local,static)

Polymorphism

- ✓ What is polymorphism
- ✓ Methods overloading
- ✓ Constructor overloading
- ✓ Passing arguments to methods
- ✓ Calling methods in the class
- ✓ Return values from method
- ✓ Return objects from method
- ✓ Method arguments callbt value, call by reference

Inheritance

- Why to do inheritance
- How to reuse the fields and methods of parant class

- ✓ Overriding fields and methods of parent class
- ✓ Single in heritage
- ✓ Multi level in heritage
- ✓ Using super keyword
- ✓ Composition/ Aggregation
- ✓ Difference between inheritance and composition

Interfaces

- ✓ What is interface
- ✓ Difference between class and interface
- ✓ When to use interface
- ✓ Abstract class

Encapsulation and abstraction

- ✓ What is hiding data
- ✓ Using access specifiers public ,private, protected default
- ✓ Accessing the public methods outside the class
- ✓ Difference in accessing in same package / different package

Package

- ✓ What is package
- ✓ How to create a package
- ✓ How to import package into different class

Collections

- ✓ Use of collections
- ✓ Advantage of collection using array
- ✓ How to add ,remove,and insert value /elements into collections
- ✓ Using the collections like List,Set,Array list, Hash Table

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- ✓ Linked List

Database Connection(JDBC)

- ✓ SQL Server
- ✓ My SQL
- ✓ Oracle

Miscellaneous

- ✓ Dynamic binding
- ✓ Upcasting, downcasting
- ✓ Autoboxing, unboxing
- ✓ Using String, Date, Math classes and Examples

Web Driver

- ✓ Introduction to Web Driver
- ✓ Comparison of selenium RC & WebDriver
- ✓ Configure Eclipse IDE (Adding selenium Libraries)
- ✓ Using Firefox Driver Chrome, IE, safari, Opera, Api
- ✓ Browser Commands
- ✓ Web Driver Interaction Commands
- ✓ Web Driver Supported Locator names:
 - ✓ Id, Name, linktext, partiallinktext
 - ✓ Tagname, Xpath, css, classname
 - ✓ Understanding and writing Xpath, types of Xpaths
- ✓ Working with Different Elements and programming
 - ✓ Editboxes, checkbox, Radiobuttons
 - ✓ Buttons, Links
 - ✓ Selecting values from a Dropdown list
 - ✓ Understanding xpath to locate elements in web page

- ✓ Working with table elements
- ✓ Reading Data from Table
- ✓ Using Actions class
- ✓ Handling keyboard, mouse events

Data Driven Testing

- ✓ What is Data Driven Testing
- ✓ How to parameterize the data to the script using excel
- ✓ Reading, Writing data into Excel
- ✓ How to parameterize data to the script using Flat files

Debug Scripts in Eclipse

- ✓ Understanding Debug
- ✓ Using Breakpoints
- ✓ Verify the values during debug
- ✓ Using step over, step into

Handling Windows

- ✓ How to handle multiple browser
- ✓ Handling alerts
- ✓ Handling Frames
- ✓ Handling windows alerts using (Auto it /sikuli)

Recognizing elements in webpage Using xpath, DOM, CSS

- ✓ Running java scripts in webDriver
- ✓ How to recognize duplicate elements
- ✓ How to recognize dynamically changing elements
- ✓ Using Regular expressions

Configuring other Browsers

- ✓ Configure IE browser
- ✓ Configure Chrome browser

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- ✓ Running scripts on different browsers

TestNG Framework

- ✓ What is TestNG
- ✓ Create TestNG.xml file
- ✓ Integrate the selenium scripts and run from TestNG
- ✓ Reporting Results & Analyze
- ✓ Run Scripts from Multi Browsers
- ✓ TestNG Annotations
- ✓ Tags in TestNG xml File Groups
- ✓ Reporting Results

Selenium Grid

- ✓ Introduction
- ✓ RemoteWeb Driver
- ✓ Configuring hub
- ✓ Configuring node
- ✓ Run selenium Web Driver scripts in parallel selenium Grid
- ✓ Running scripts on remote computer

Automation Life Cycle

- ✓ What is Frame work
- ✓ Types of Frame work
- ✓ Modular Framework
- ✓ Data Driven Framework
- ✓ Keyword Driven Framework
- ✓ Hybrid Framework
- ✓ Use of Framework
- ✓ How Develop The Framework
- ✓ Integration of the Frame work
- ✓ How execute the scripts from Frame work

Page Object Model Framework

- ✓ Introduction to page object model
- ✓ Advantages of page object model
- ✓ Writing scripts Using page Object Model
- ✓ Creating Repository class, Using properties file
- ✓ Execution of scripts Using page Object Model
- ✓ Generating Log files (log4j)

MAVEN

- ✓ Installing maven in Local Machine
- ✓ Creating Maven project
- ✓ Importing Maven project in Eclipse
- ✓ Understanding of POM .xml
- ✓ Maven Integration with TestNG
- ✓ Executing Scripts Using Maven build tool
- ✓ Advantages Maven Tool

JENKINS

- ✓ Introduction to Jenkins
- ✓ Installing Jenkins with selenium
- ✓ Setting up a continuous integration and a continuous deployment environment
- ✓ Creating jobs in jenkins tool
- ✓ Scheduling jobs for timely execution
- ✓ Integration with selenium scripts and running scripts
- ✓ Configure mail notification in jenkins

Mobile Apps Testing Using Appium

Introduction

- ✓ Introduction to Mobile automation testing
- ✓ Introduction to Appium
- ✓ Automation for IOS and Android devices
- ✓ Difference between Appium & Selendroid
- ✓ Various tools available for Mobile automation testing

Installation

- ✓ Download & install Appium
- ✓ Installation of SDK for Android
- ✓ Installation of APIs for Android
- ✓ Configuration of Environment Variable
- ✓ Installing the Eclipse ADT Plugin
- ✓ Appium installation on Windows OS
- ✓ Configuring & Executing scripts on Emulator and Real Device

Developing Scripts

- ✓ Opening UIAutomator Viewer through SDK tools kit
- ✓ Understanding the different locator tags
- ✓ What is Appium Inspector
- ✓ WebDriver Scripts for Mobile Native Apps and Web app Testing
- ✓ Running Native Apps
- ✓ Developing scripts for Native Apps & Webapps execution
- ✓ Developing scripts for Web apps and Execution
- ✓ Reporting Results

Web Services Testing SOAP UI (Overview)

- ✓ What is web service
- ✓ Web service architecture
- ✓ What testing we have to do in webservice
- ✓ Introduction to SOAP UI

- ✓ Running project in SOAP UI and testing Webservices
- ✓ Load Testing
- ✓ Data Driven for Services Testing

Cucumber (Overview)

- ✓ How can we use it with Selenium Web Driver
- ✓ BDD Testing:Cucumber with selenium