



# Selenium

QT100

40

Academic Hours

# Selenium

## Outline

Selenium is the most popular tool used to automate the testing of web applications.

This Course is about Selenium and its various components such as Selenium IDE, Selenium WebDriver and Selenium GRID.

We will learn to set up environment so that we can start using Selenium for testing any web applications on any given browser.

In addition, we will work with Selenium IDE, Selenium WebDriver, and Selenium GRID in different frameworks such as Data Driven, Keyword Driven, Cross browser testing and Hybrid.



### Target Audience

The course is designed for manual quality assurance engineers who can upgrade their knowledge and skills to become software automation testing engineers.



### Prerequisites

Delegates should have experience in manual testing methods. Background in any development language can be useful in this course. (Java, C, C#, Python)



### Objectives

- Introduce Testing and its types
- Learn about Selenium, its evolution, Regression testing and Functional testing
- Set-up JAVA, Eclipse, and Selenium Environment and configure them
- List the components of Selenium 3.0 such as Selenium IDE, Selenium WebDriver, and Selenium Grid
- Create Test Cases in Selenium WebDriver
- Discuss about waits in Selenium
- Handle different controls on a Webpage



# Content

## Module 01

### Introduction to Testing Automation

- | Testing Automation definition
- | Test Automation advantages
- | Candidates for Testing automation
- | Manual Testing Process Vs. Automated testing process
- | Testing Automation Project Life Cycle
- | Stages in implementing Testing Automation project

## Module 02

### Preparations of Recording

- | Test automation preparations
- | Tests and tests data preparations
- | Environment preparations
- | Selenium settings

## Module 03

### Selenium Modules

- | Selenium – IDE
- | selenium – RC
- | Selenium – WebDriver
- | Selenium – Grid

## Module 04

### Selenium IDE – Installation and Main Features

- | How and from where to install the Selenium IDE
- | Selenium IDE main features
- | For what do I need the IDE features

## Module 05

### Creating Basic Test

- | Record a basic test
- | Run test
- | Save test
- | View test results

## Module 06

### Object Identification

- | What is an object
- | What are object properties
- | Object spy
- | Object identification



#### Module 07

### Synchronization Point

- | What is synchronization
- | Add synchronization
- | Add Wait() statement

#### Module 08

### Verification Point

- | What is a checkpoint
- | Checkpoint types

#### Module 09

### Synchronization Point

- | Parameterize checkpoint
- | Regular expression
- | View checkpoint result

#### Module 10

### Debugging

- | Use Debugging Features
- | Locate syntax errors
- | View errors in test report

#### Module 11

### Programming Statements without Recording

- | Adding statements from menu
- | The use of flow control
- | Adding statements manually
- | Importance of using comments in your script

#### Module 12

### Parameterization

- | Input parameters
- | Data Driven Test
- | Working with data table
- | Environment variables

#### Module 13

### Exporting Scripts from IDE

- | Exporting from Selenium IDE
- | The Main program
- | Execution via Java code
- | Enhance your script with Java flow controls



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