

# Selenium course content

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## 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 WebDriver
- ✓•Selenium Grid

## 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 methods
- ✓•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
- ✓•Method overloading

- ✓•Constructor overloading

### **Inheritance**

- ✓•Why to do Inheritance
- ✓•How to reuse the fields and methods of parent class

### **Encapsulation and abstraction**

- ✓•What is hiding data
- ✓•Using access specifies public, private, protected, default

### **Interfaces**

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

### **Collections**

- ✓•Use of collections
- ✓•Advantage of collection using Array
- ✓•How to add, remove, and insert value / elements into collections

### **SQL Basics**

## **Web Driver**

- ✓•Introduction to Web Driver
- ✓•Configure Eclipse IDE (Adding selenium Libraries)
- ✓•Using FirefoxDriver API
- ✓•Working with Different Elements and programming
- ✓•Edit boxes
- ✓•Checkbox, Radio Buttons
- ✓•Buttons
- ✓•Links
- ✓•Selecting values from a Dropdown list
- ✓•Understanding xpath to locate elements in webpage
- ✓•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 windows alerts using (Auto it / sikuli)
- ✓•Handling Frames

### **Configuring other Browsers**

- ✓•Configure IE browser
- ✓•Configure Chrome browser
- ✓•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 MultipleBrowsers
- ✓•TestNG Annotations
- ✓•Tags in TestNG xml file
- ✓•Groups
- ✓•Reporting Results

### **ANT / MAVEN**

- ✓•Creating Maven project
- ✓•Creating build file
- ✓•Running the build

## **Jenkins**

- ✓ Installing Jenkins
- ✓ Adding project to Jenkins
- ✓ Running the build