# 1) Introduction to Selenium

(Overview of Selenium, Selenium suite of Tools, Selenium IDE Features, Selenium RC Features, Overview on Selenium WebDriver, Selenium Grid Features, History of the Selenium Project, Platforms supported by Selenium and Selenium Licence)

# 2) Software Test Process

(Introduction Selenium continuation, Advantages & Disadvantages of Selenium, Software used for Selenium Testing and Selenium Automation Framework.

Phases of Software Test Process, Requirements Analysis, Test Planning, Test Design, Test Environment Setup, Test Execution and Test Cycle Closure.)

# 3) Selenium Test Process

(Selenium Test Life Cycle or selenium Test Process, Selenium Test Planning, Writing Selenium IDE Test Cases, Writing Selenium WebDriver Test Cases, enhancing Selenium Test Cases using Java Programming, Executing Selenium Test Cases, and Reporting Defects.)

# 4) Java Programming for Selenium

(Overview of Java Programming, Java Modifiers, Data Types, Variables, Operators, Flow Control, Arrays, String Handling, File Handling, Exception Handling, and Methods. Java OOPS: Inheritance, Polymorphism, Abstraction, and Encapsulation.)

# Selenium Step by Step Videos



Selenium, Java, TestNG and Live Project Tutorials

# 6) Introduction to Java

(Introduction to Java Programming Language, Uses of Java language, Java Syntax Rules & Coding Standards, Java Environment Setup, Write & Execute first Java Program, and Write Java Programs using Eclipse IDE)

## 7) Selenium Class 7 Video: Java Program Structure and Syntax

(Java Programming Structure, Writing Comments, Declaring Methods, Declaring Variables, Declaring Constants, Print Statements, usage of Operators, Writing Conditional Statements, Writing Loop Statements and Calling methods. Java Keywords, Java reserved Words, Java Coding Standards and Java Syntax Rules.)

# 8) Selenium Class 8: Java Variables and Operators

(Declaring Java Variables, Types of Java Variables, Java Local variables, Instance Variables, and Class Variables/Static Variables. Usage of Java Variables, Assign values to Variables and Variable Naming Restrictions. Categories of Java Operators, Java Arithmetic Operators, Java Assignment Operators, Java Comparison Operators and Logical Operators)

# 9) Selenium Class 9: Java Conditional and Loop Statements

(Java Conditional and Loop Statements tutorial explains Types of Conditional statements in Java, Types of Conditions and usage of conditional statements. If statement and switch statements in Java with examples. Java loop structures, for loop, while loop, do while loop and enhanced for loop with examples.)

# 10) Selenium Class 10: Strings and Arrays in Java

(Strings and Arrays in Java tutorial explains String handling in Java, Creating Strings, String Concatenation, and String Comparison. Array declaration, types of Arrays, print Array, copy Array, Array methods and Advantages & Disadvantages of Arrays.)

# 11) Selenium Class 11: Input Output Operations and File Handling

(Input and Output operations and File handling in Java tutorial explains reading different types of input and displaying output on the console. handling folders and files using File Class. Exception handling in Java. Handling Arithmetic, Number format, Null pointer and Array index out of bounds exceptions using try catch blocks.)

# 12) Selenium Class 12: User Defined Methods in Java

(User Defined Methods in Java tutorial explains Java built in and User defined methods. User defined methods in Java, Method with returning a value, Method without returning any value, calling methods by invoking object and calling methods without object. Calling internal and external methods.)

# 13) Selenium Class 13: Built-in Methods in Java

(Built in Methods in Java tutorial explains Java String methods, Number methods, Character methods, Array methods and Date & Time methods. Java Built-in methods for Selenium Test Automation.)

# 14) Selenium Class 14: Java Inheritance and Polymorphism

(Java Inheritance and Polymorphism tutorial explains types of Inheritance in Java, Creating and accessing Non static class members using Inheritance. Polymorphism in Java, Method Overloading and Method Overriding. Examples for Java Inheritance, Polymorphism and creating & accessing Java Class members.)

#### 15) Selenium Class 15: Java Abstraction and Encapsulation

(Java Abstraction and Encapsulation tutorial explains Java Abstraction, Create Abstract class, implement abstract methods, create Java interfaces and reuse Interface methods using implements keyword. Java Encapsulation, create getter and setter methods and access private fields.)

## 16) Selenium Class 16: Introduction to Selenium WebDriver

(Introduction to Selenium WebDriver tutorial explains features of Selenium WebDriver, drawbacks of WebDriver, Selenium WebDriver Environment setup. Create Selenium Test Case using Element locators and WebDriver Commands. WebDriver Fundamentals and Features, configure WebDriver and create Test cases.)

#### 17) Selenium Class 17: Web Elements and Element Locators

(Web Elements and Element Locators tutorial explains Operations Web elements like Browser, Page, Link, Edit box, Button, Check box, Radio button, WebTable, Frame etc... Element Locators for recognizing web elements in Selenium WebDriver, element locatores are id, name, className, linkText, partialLinkText, tagName, cssSelector and xpath locators.)

#### 18) Selenium Class 18: WebDriver Commands and Operations

(Selenium WebDriver Methods tutorial explains Webdriver commands and operations with examples. Selenium Webdriver Browser methods, Browser navigation methods, methods on web elements and other methods. Selenium WebDriver methods for performing operations on Web Elements.)

# 19) Selenium Class 19: Handling Elements in Selenium

(Handling Elements in Selenium Part 1 explains how to handle elements using Element locators and WebDriver methods. handle Browser in Selenium Webdriver, handle Edit box, handle Text Area, handle Error messages and handle Window error popup. Handle Button using different element locators.)

# 20) Selenium Class 20: Handling Elements in Selenium Part-2

(Handling Elements in Selenium Part 2 tutorial explains Handling web elements in Selenium WebDriver, Handle Link, Handle Radio Button, Handle Check box, Handle Web Tables, Handle Drop down box and handle inline elements. Creating Selenium WebDriver Test Scripts using Element locators and WebDriver Methods.)

# 21) Selenium Class 21: Handling Elements in Selenium Part-3

(Handling Elements in Selenium Part 3 tutorial explains handling elements in Selenium WebDriver using Element locators and WebDriver methods. Handling Frames, Working with Multiple browsers, and handling duplicate elements. Creating Selenium Test cases using Element Locators, WebDriver methods and Java programming features.)

#### 22) Selenium Class 22: Cross Browser Testing with Selenium

(Cross Browser Testing with Selenium tutorial explains executing selenium Test cases using different browsers like Mozilla Firefox, Google Chrome and Internet Explorer. Download Browser drivers , instantiate browser drivers and execute Test cases.)

## 23) Selenium Class 23: Writing Selenium Test Cases

(Writing Selenium Test Cases tutorial explains Writing Test Cases using Element locators, WebDriver Methods and Java Programming features. Handling NoElementException in Test Cases, Inserting multiple verification points, and Dynamic Test data submission for Captcha fields. Writing Positive and Negative Test Cases using Selenium WebDriver.)

# 24) Selenium Class 24: Writing Selenium Test Cases Part-2

(Writing Selenium WebDriver Test Cases using Element Locators, WebDriver Commands and Java Programming features. Writing Positive and Negative Test Cases in Selenium. Creating multiple browser drivers and working with different Browsers.)

## 25) Selenium Class 25: Writing Selenium Test Cases Part-3

(Writing Selenium WebDriver Test Cases using User defined methods or Reusable components. Creating Multiple Test Cases in a Program using Reusable components or Methods. Conditional and Unconditional Synchronization in Selenium.)

# 26) Selenium Class 26: Introduction to Selenium IDE

(Introduction to Selenium IDE tutorial explains Selenium IDE fundamentals and features, Drawbacks of Selenium IDE, Selenium IDE Installation, Create & execute Test cases, Insert Comments in test Cases and debugging Test Cases. Creating and executing Positive and Negative Test Cases in Selenium IDE.)

# 27) Selenium Class 27: Introduction to TestNG Framework

(Introduction to TestNG Testing framework tutorial explains TestNG Installation in Eclipse IDE, writing first TestNG Test Case, writing multiple Test cases in a Program, TestNG annotations and attributes like priority, dependsOnMethods, alwaysRun, and enabled. Executing TestNG Test Cases and generating test Reports.)

# 28) Selenium Class 28: TestNG Framework in Selenium Part-2

(TestNG Framework in Selenium tutorial explains executing multiple programs or classes using XML, Grouping Test Cases and Parallel Test Execution using TestNG. Usage of TestNG Annotations like BeforeMethod, AfterMethod, BeforeClass, AfterClass, BeforeTest, AfterTest, BeforeGroups and AfterGroups in Selenium.)

# 29) Selenium Class 29: Data Driven Testing in Selenium

(Data Driven Testing in Selenium tutorial explains Data driven testing by fetching test data from an external excel file. Download excel jar file and add excel jar to Java project in Eclipse, write Selenium Webdriver Test case and execute the Test case using multiple sets of Test data. Usage of TestNG DataProvider annotation.)

# 30) Selenium Class 30: Selenium Live Project

(Selenium Live Project tutorial explains Understanding Testing project Requirements, Features to be Tested, derive Sanity Test Cases, derive Comprehensive Test Cases and automating Test cases using Selenium. Understanding Software project requirements, deriving test cases and automating test cases using Selenium.)

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# Page Object Model in Selenium

(What is POM (Page Object Model)?, Page Object Model in Selenium for Centralized maintenance of Web Elements and Advantages of Page Object Model in Automated Testing using Selenium. Page Object Model using Page Factory and without using Page Factory and POM to overcome the limitation (No Object Repository) of Selenium.)