Course Content

SELENIUM WITH JAVA
By
SREEKHAR 15+ Years of Experience
Real-time Expert

COURSE CONTENT

JAVA

1. Java Introduction

i. What is Java?
ii. Java Editions - JSE, JEE, JME, JavaFX
iii. Installing Java

2. Eclipse Introduction

i. What is Eclipse?
ii. Installing Eclipse
iii. Configure Eclipse with Java
iv. Creating Java project, Package and Class

3. Class and Objects

i. What is Class in Java?
ii. What is Object?
iii. Accessing Class Values
iv. Creating objects for a class
iv. Naming standards/ Java notations

4. Data Types

i. What is Data Type?
ii. Java Data Types
iii. Primitive Data Types
iv. Reference Data Types

5. Java Operators

i. Unary Operator (-, ++ and --)
ii. Binary Operators
iii. Ternary Operator

6. Java Variables

i. What is Variable?
ii. Types of Variables

iii. Working with non-static, static, local and Block variables

7. Conditional / Control Statements

i. If
ii. If else
iii. If else if
iv. Switch

8. Loop / Iterative Statements

i. for
ii. While
iii. Do
iv. for each

9. Arrays and Collections

1. What is Array?
2. Working with Array
3. Drawbacks of Array
4. What is a collection?
5. Types of Collections
6. Working with List, Set and Queue Collections

10. Methods

i. What is a Method?
ii. Working with static and non-static methods
iii. Types of Methods
iv. What is method overloading and method overriding?

11. Working with String class, String Buffer class and methods

i. String methods and related programs

12. Constructors

i. What is Constructor?

ii. Types of Constructor

　　iii. Constructor overloading and overriding

　　iii. Difference between methods and Constructors

13. Exception Handling

　　i. What is Exception?

　　ii. Types of Exceptions

　　iii. Handling Exceptions in Java

　　iv. Working with try catch blocks

14. Access modifier

　　i. Working with Access modifiers - public, private, protected and default

15. Interface

　　i. What is Interface?

　　ii. Accessing Interface values

　　iii. What is abstract?

　　iv. What is abstract class and abstract method?

　　v. Advantages of Interface

16. Object Oriented Programming Language

　　i. What is OOPs Concept?

　　ii. Inheritance

　　iii. Polymorphism

　　iv. Encapsulation

　　v. Abstraction

17. Working on Data Base with Java

　　1. Data base connections in Java

　　2. Executing query and retrieving query results

18. Working with Excel and Text File

SELENIUM AUTOMATION

1. Automation Introduction

       i. What is Automation Testing?
       ii. Importance of Automation Testing?
       iii. What is Automation Testing Process?
       iv. What is Automation Feasibility?
       v. Types of Automation Tools
       vi. Automation Tester Responsibilities

2. Selenium Introduction

       i. What is Selenium?
       ii. Selenium Components
            a. Selenium IDE
            b. Selenium RC
            c. Web Driver
            d. Selenium Grid
       iii. Advantages of Selenium
       iv. Limitations of Selenium

3. Selenium WebDriver Set up

       i. Configure Web Driver with eclipse and Java

4. Working with Browsers

       i. Working with Chrome Browser
       ii. Working with Firefox Browser
       iii. Working with Edge Driver
       iv. Working with IE browser
       v. Working on Basic Browser based commands

5. Locating Elements

       i. What are elements?
       ii. How selenium recognize the elements
       iii. Working with Locators - id, name, className, linkText, tagName, xPath....

iv. Working with find Element and find Elements methods

6. Working with Text Box Elements

i. Identify Text box is exist
ii. Identify Text box is enabled or disabled
iii. Enter text into text box
iv. Retrieve Text box value
v. Clear Text box value
vi. Focus into Text box
vii. Appending text into Text box

7. Working with Multiline Text box

i. Identify Text box is exist
ii. Identify Text box is enabled/disabled
iii. Enter multi line text into text box
iv. Retrieve Text box value
v. Clear Text box value
vi. Focus into Text box
vii. Appending text into Text box

8. Working with Buttons

i. Identify Button is exist
ii. Identify Button is enabled/disabled
iii. Click a button

9. Working with Check box

i. Identify Check Box is exist
ii. Identify Check Box is enabled/disabled
iii. Identify Check box is selected or not selected
iv. Select a Check box
v. Unselect a Check Box

10. Working with Links

i. Identify Link is exist
ii. Identify Link is enabled/disabled

iii. Click a link

11. Working with Radio buttons

i. Identify Radio button is exist
ii. Identify Radio button enabled/disabled
iii. Select a Radio button

12. Working with Drop Downs

i. Identify Dropdown is exist
ii. Identify Dropdown is enabled/disabled
iii. Verify default value for a dropdown
iv. Select a required value from dropdown
v. Retrieve all values from dropdown
vi. Identify given value is exist in dropdown
vii. Select multiple values from multi selection dropdown
viii. Retrieve selected values from dropdown

13. Working with Mouse and Keyboard Operations

i. Working with Actions class
ii. Mouse over on element
iii. Right click and select required option
iv. Drag and Drop elements

14. Handling Alerts, Frames, Nested Frames and Multi Frames

i. What is alert and Types
ii. Handling Web and Windows Alerts
iii. What is Frame?
iv. Handling Frames

15. Handling multiple browser windows

16. Working with Web Tables

i. Finding number of rows
ii. Finding number of columns for a given row
iii. Retrieve given cell value

iv. Identify given text is exist in web table

v. Perform operations on elements which are in web table

17. Synchronization

i. What is Synchronization?

ii. Types of Synchronization

iii. Handling Synchronization - implicit wait and Explicit wait

18. Working with Excel files

i. Identify given file exist

ii. Creating a new excel file

iii. Entering data into excel and retrieving data from excel file

19. General Automation Frameworks

i. Data Driven Framework

ii. Keyword/Modular Driven Framework

iii. Hybrid Framework

20. Working with Page Object Model

21. Working with Cucumber Framework

i. Overview of BDD and Cucumber

ii. How to install and setup Cucumber with Eclipse

iii. Overview of Gherkin keywords

iv. How to create Feature file

v. How to generate Step Definition file.

vi. How to integrate Cucumber with Selenium Web Driver

vii. JUnit Test Runner Class

viii. Data Driven Testing in Cucumber

22. Selenium Grid

i. What is Selenium Grid?

ii. When to Use Selenium Grid?

iii. What is a Hub and Node?

iv. How to install and Use Grid 2.0?

v. Designing Test Scripts That Can Run on the Grid
vi. Using the DesiredCapabilites Object
vii. Using the RemoteWebDriver Object
viii. Running a Sample Test Case on the Grid
ix. Sequential and Parallel Test Execution
x. Running Tests on different Browsers

23. Miscellaneous Topics

i. Taking screenshots for validations
ii. Working with Maven
iii. Working with GitHub
iv. Working with Jenkins

Manual Testing:

Introduction to Software Testing
Why Testing is Necessary
What is Manual Testing?
Error / Defect / Failure?
Why Software has defects?
What is defect?
Defect Reporting Process
Defect Severity & Defect Priority
Defect Status
Test Summary Reports
Status Reports (Daily and Weekly)

Testing Types
- Static testing
  - ➢ What is static testing?
  - ➢ Reviews
  - ➢ Walkthrough
- Dynamic Testing
  - ➢ Functional testing
  - ➢ Regression Testing
  - ➢ Sanity Testing

Test Management & Defect Management Tool JIRA
- JIRA Introduction

- How to Install JIRA
- JIRA Features
- Creating Scrum Project in JIRA
- Adding Users to our JIRA Account
- JIRA Issue types
- Workflow for a Project
- Creating Product backlog in JIRA
- Creating EPICS in JIRA
- Creating User Stories in JIRA

Key Points In Our Training:

1. Real time & Interview oriented training
2. Basic and Advance Concepts
3. Resume Preparation
4. Interview Questions
5. Project Guidance

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