****

 **Selenium with Java Training Course**

 Project Based Immersive Learning Course

**Selenium with Java Training Course Overview**

Education Nest offers a comprehensive training program on Selenium with Java, which enables learners to master this automation testing tool and become a certified Automation Tester. This training program covers a wide range of topics, including WebDriver, Grid, IDE, handling IFrames, Alerts, and Modal Dialog box. Participants will also learn to use popular plugins such as TestNG Framework, Robot Class, Cucumber, and Gherkin to control their automation environment. The training program provides hands-on experience with commonly used automation frameworks such as Data-Driven Framework, Keyword-Driven Framework, Hybrid Framework, and more. The course is designed by top industry experts and is instructor-led, allowing learners to work on real-life industry cases. By enrolling in Education Nest's Selenium with Java training, learners can take their careers to new heights.

**Benefits of Selenium with Java Training Course:**

Worldwide demand for professionals with Selenium with Java training has increased as a result of the tool's rising popularity. The adoption of advanced technologies, mobile, and web-based applications with various form factors has further fueled the need for automated testing solutions, thus creating enormous opportunities for automation testing engineers. Automated testing solutions offer various benefits, including increased productivity with minimal human intervention and faster time-to-market for software products, which are expected to drive the market growth in the coming years.

**Who should learn?**

* Manual Testers
* Software testers
* Automation testers
* Quality assurance engineers
* Software developers
* Anyone willing to add Java for Selenium Web driver skills to their profile
* People working on Java for Selenium Web driver projects

**Why do you need Selenium with Java Training Course?**

**Average Salary Growth:**

According to  Payscale.com, the average salary of a Selenium with Java tester is around $97,174 per annum. Also according to various reports and studies, the average salary of a Selenium with Java professional ranges from USD 50,000 to USD 120,000 per annum. The salary growth of Selenium with Java professional is promising as the demand for automation testing is increasing across various industries, leading to higher salaries and better job opportunities.

**Industries:**

Selenium with Java professionals are in high demand in various multinational companies (MNCs) across different industries. With the growing popularity of Selenium with Java, more and more companies are adopting this automation testing tool to improve their software quality and reduce testing costs. MNCs such as Amazon, Google, Microsoft, IBM, Accenture, Capgemini, Infosys, TCS, Cognizant, Wipro, and many more are actively hiring Selenium with Java professionals for various roles.

**Position in Market:**

According to job research websites, the demand for automation testing skills, including Selenium with Java, is expected to grow in the coming years due to the increasing adoption of automation testing by various industries.The Automation Testing Market had a global size of USD 21.4 billion in 2021, and it is expected to reach USD 50.1 billion by 2026, growing at a CAGR of 19.2%.

**Designations:**

* Automation Test Analyst
* Selenium Tester
* Selenium Automation Engineer

**Why Selenium with Java Training Course from Education Nest**

* + - * **Free Demo on Request**
			* **Live Interactive Learning**
			* **Lifetime Access**
			* **Flexible Schedules**
			* **24x7 Support**
			* **One on One Doubt Clearing**
			* **Real Time Project-Based Learning**
			* **Certificate Oriented Curriculum**

**Key Skills Covered:**

* Core Java
* Web Automation
* Handling Browser
* Website Testing
* Automate Data Operations
* Selenium WebDriver

**Selenium with Java Training Course Syllabus**

**Module 1: (Introduction)**

* What is automation testing
* Difference between Manual & Automation Testing
* When to go for Automation
* Advantages of Automation
* Licensed Automation Tools
* OpenSource Automation Tools

**Module 2: (Introduction of Selenium)**

* Overview of Selenium
* Different Selenium Components(Selenium IDE, WebDriver, Selenium GRID)
* Differences between Selenium and other Tools

**Module 3: (Configuring Eclipse IDE)**

* Installation of Java
* Installation Eclipse IDE
* How to create new java project
* How to create a new java class
* Compiling and Running java class
* Analyzing the results of java program

**Module 4: (Learning Java)**

* Introduction to Java programming
* Primitive and Non-Primitive Data types
* Operators in Java
* Wrapper Classes
* Types of Variable (Local, Instance and Static Variables)

**Module 5: (Conditional Statements)**

* If else condition
* Nested If Else Condition
* Switch case statement
* Examples for all the above conditions

**Module 6: (Loop Statements)**

* While loop
* Do while
* For loop.
* For each loop
* Examples for all the above loops

**Module 7: (Arrays)**

* What is an Array?
* Type of Arrays
* Working with Single Dimensional and Multi-Dimensional Arrays
* Copying Arrays with Clone() and array copy()

**Module 8: (Packages, Classes and Objects)**

* What are Packages
* How to create Classes .Objects and Object References
* Working with Constructors
* Using Methods(instance, static)
* Access Modifiers (private, default, protected and public)
* Method arguments call by value and call by reference
* How to write user defined methods

**Module 9: (Interface& Abstract Class)**

* How to define Interface
* How to implement Interface
* How to define Abstract Class
* Abstract method vs. Concrete method
* Interface vs. Abstract class vs. Concrete Class
* Implements vs. extends

**Module 10: (Inheritance)**

* What is Inheritance and Why to use Inheritance?
* Single Level Inheritance, Multi-Level Inheritance, Multiple Inheritances (Through Interface)
* super keyword
* this keyword
* Composition / Aggregation
* Inheritance (Is a Relationship) vs. composition (Has a Relationship)

**Module 11: (Polymorphism)**

* What is polymorphism?
* Compile time Polymorphism
* Method overloading
* Constructor overloading
* Runtime Polymorphism
* Method Overriding
* final keyword

**Module 12: (Exception handling)**

* What are exceptions and errors?
* Checked Exception or Compile time Exception
* Unchecked Exception or Runtime Exception
* How to handle exceptions in the program!
* Using try and catch blocks
* Using of throw
* Using of throws

**Module 13: (Collections)**

* Overview of Collections API
* Arrays vs Collections
* List, Set, Map interfaces
* Using Array List Class
* Working with elements of a Collection
* Examples for all the above concepts

**Module 14: (Database Connection (JDBC))**

* How to configure MySQL database
* How to configure with Eclipse
* Connection Interface Commands
* Statement Interface Commands
* Result Set Interface Commands
* How to execute query

**Module 15: (Debug Java code / Scripts in Eclipse)**

* Understanding Debug
* Using Breakpoints.
* Verify the values during debug
* Using step over, step into

**Module 16: (Selenium Web Driver)**

* Features and Limitations of Selenium Web driver
* Configure Selenium with Eclipse IDE(Adding selenium Libraries)
* Configure Selenium with Chrome,
* Firefox Driver, IE, Safari, Opera browsers
* Web Driver Interface
* Chrome Driver, Firefox Driver, Internet Explorer Driver, Edge Driver classes
* Browser Commands
* Navigation Commands
* Handling Cookies

**Module 17: (Locators)**

* Object Identification
* Find Element and find Elements
* Different types of Locators
* Xpath, relative Xpath, Absolute Xpath, css Selector
* How to build dynamic Xpath
* Identifying Objects using Xpath and css Selectors
* How to use Regular Expressions in Xpath and Css Selectors
* How to configure Chrome Path
* Html Tags and DOM structure

**Module 18: (Text Field, Checkbox, Radio Buttons, Links and Buttons)**

* Handling Text Field and Text Area
* Handling Checkbox’s
* Handling Radio Buttons
* Handling Links and Buttons
* Web Element Interface methods

**Module 19: (Dropdowns, Web Tables, Calendar)**

* Handling dropdowns/list boxes
* Select Class methods
* Working with Dynamic Web Table Elements
* Extracting data from Web Table’s
* Custom methods for Web Table’s
* Select date from calendar

**Module 20: (Alerts, Frames, Windows)**

* Handling alerts
* Alert interface methods
* Handling Frames
* Handling Nested Frames
* How to handle multiple browsers or Tabs
* Target Locator interface methods

**Module 21: (Actions Class Takes Screenshot, JavaScript Executor)**

* Mouse Events
* Click, DoubleClick, contact Click, drag And Drop, click and Hold, release
* Keyboard Events
* How to scroll page
* Capture screenshot
* How to execute JavaScript

**Module 22: (Synchronization)**

* How to use implicit Wait, page Load Timeout, set Script Timeout
* How to use Explicit Wait
* How to implement Web Driver Wait
* What are different Expected Conditions and how to use
* How to implement Fluent Wait

**Module 23: (Miscellaneous)**

* Headless browsers
* Handling Notifications
* Handling Auto Suggestions
* Highlight objects
* Scroll into view
* How to find broken links
* Different Selenium Exceptions
* Capture screenshot of entire page

**Module 24: (Auto It, Sikuli, Robot)**

* Configure Sikuli with Selenium
* File Upload/Download with Sikuli
* Configure Auto It with Selenium
* File Upload/Download with Auto IT
* File Upload/Download with Robot

**Module 25: (Apache Pol)**

* Configure Apache POI with Eclipse
* Workbook, Sheet Row ,Cell Interfaces methods
* HSSF Workbook, HSSF Sheet, HSSF Row, HSSF Cell methods
* XSSF Workbook, XSSF Sheet, XSSF Row, XSSF Cell methods
* How to read data from Excel file(XLS or XLSX)
* How to write data to Excel file(XLS or XLSX)

**Module 26: (TestNG)**

* TestNG Features
* Configure TestNG with Eclipse
* TestNG Annotations
* Integrate Selenium Scripts with TestNG
* Create TestNG.xml file
* Assert methods
* Hard Assert vs. Soft Assert
* Cross browser testing
* How to use Data Provider
* Reporting Results
* Listeners
* Sequential Execution vs. Parallel Execution
* How to create batch file
* Extended Reports

**Module 27: (Maven)**

* What is maven
* Installing Maven in Local Machine
* Creating Maven project in Eclipse
* Understanding of POM .xml
* Maven Integration with TestNG
* Maven Lifecycle
* Executing Scripts Using Maven build tool
* Advantages Maven Build Tool

**Module 28: (Jenkins)**

* Overview of Jenkins
* Installing Jenkins
* Configure Maven project in Jenkins
* Configure Non Maven project in Jenkins
* Creating Jobs in Jenkins
* Scheduling lobs for timely Execution
* Integration with Selenium Scripts and Running Scripts
* Configure Email notification in Jenkins

**Module 29: (Selenium Grid)**

* Overview of Selenium Grid
* Remote Web Driver and Desired Capabilities class
* Configuring Hub
* Configuring Node
* Running scripts on Remote system
* Run Selenium scripts in parallel on Remote system

**Module 30: (GitHub & Git)**

* How to create GitHub Account
* Configure Git and GitHub with Eclipse
* Git & GitHub Commands
* Integrate with Framework

**Module 31: (Cucumber)**

* Overview of BDD and Cucumber
* How to install and setup Cucumber with Eclipse
* Overview of Gherkin keywords
* How to create Feature file
* How to generate Step Definition file
* How to integrate Cucumber with Selenium Web Driver
* JUnit Test Runner Class
* Data Driven Testing in Cucumber
* Configure Cucumber with Maven and Jenkins
* How generate Reports in Cucumber

**Module 32: (Katalon Studio)**

* Download and Install Katalon Studio
* Configuring Katalon Studio for Web Applications
* How to create Test Case and Test Suite
* How to create Object Repository
* Create Automation Script using Record and Playback, Manual Mode, Script Mode
* How to integrate with other environments

**Module 33: (Appium)**

* Introduction to Mobile Automation &Appium
* Installation of Android SDK on Windows OS
* Installation of Appium on Windows OS
* Configure Appium Client libraries
* Configuration of Environment variables
* How to use UIAutomator Viewer
* How to use Appium Inspector
* Different types of Locators
* Mobile Web App Automation
* Native App Automation
* Hybrid App Automation
* Configuring & executing scripts on Emulator and Real Device

**Career Support**

**Profile Building:**

Experienced professionals are available to offer tailored assistance in crafting your CV and online profiles, taking into account your unique educational and experiential background.

**Interview Preparation:**

The upcoming interview preparation service will include personalized one-on-one sessions and the option for mock interviews if needed.

**Job Referrals:**

At Education Nest, we receive a variety of job requirements from diverse sources such as organizations, our clients, HR consultants, and a vast network of Education Nest currently employed in different companies. We strive to meet these varied requirements to the best of our abilities.

**Continuous Support:**

We offer continuous support for as much time as you need it, and a considerable number of our learners receive multiple interviews offers and promising employment opportunities as a result of the abilities they gain during the program.