

**START YOUR  
SELENIUM  
CAREER TODAY!!**

**CREDO SYSTEMZ**

**Selenium  
Program**

# Capstone Projects :

## Real Time Playwright Training Projects



### E- Commerce Application

Create a Maven project with dependencies; implement a BDD-driven hybrid framework for a live e-commerce app using the Page Object design pattern.



### Banking Application

Create a Maven project with dependencies; implement a hybrid test framework for a live banking app using Page Object Model and Page Factory.



### Login & User Authentication

Build Selenium scripts to test login, logout, password reset, and session handling across browsers.



### Form Submission Testing

Automate input validation, dropdowns, file uploads, and error message handling for web forms.



### Source Code Management

Create a Jenkins Maven job to trigger POM.xml on code check-ins, validate the e-commerce app, and email test results.



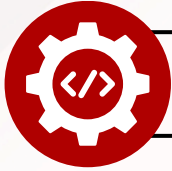
### Data-Driven Testing

Use Excel/CSV data with Selenium to run bulk test cases for multiple input combinations.



# Selenium

## Opportunities & Demand



**Automation Tester**



**Test Analyst**



**QA Automation Engineer**



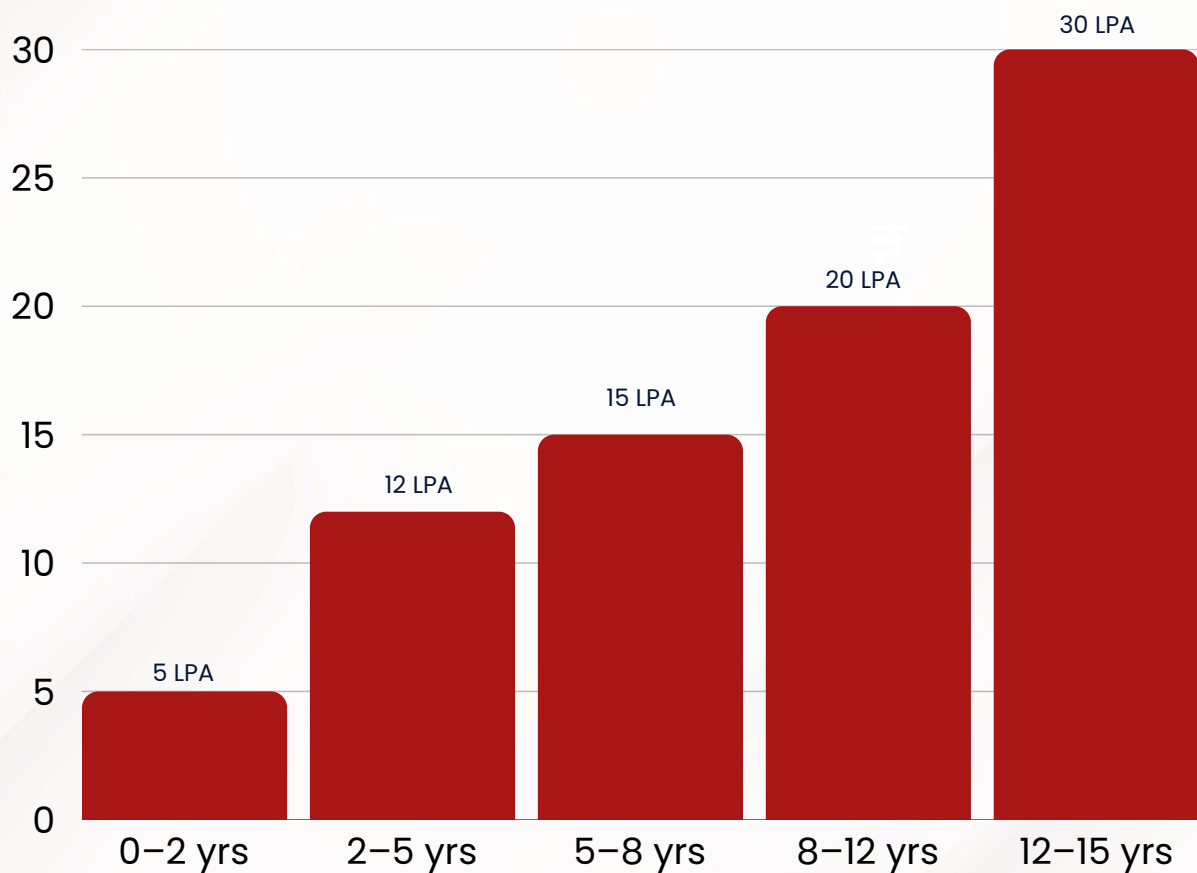
**Automation Test Architect**



**Software Engineer**



**Performance Test Engineer**





# SELENIUM WITH AI COURSE SYLLABUS

**Duration : 60 hrs**

## Section 1 : AI in Software Testing

### What is AI in Software Testing?

- Basic idea of Artificial Intelligence
- How AI is used in testing today
- Difference between AI, automation, and manual testing
- How AI understands test cases and gives results
- Benefits: faster, smarter, and more accurate testing

### How Testers Use AI Tools

- Create test scripts automatically from simple inputs
- Predict bugs and errors early
- Fix broken locators
- Generate smart test data using AI
- Learn new testing tools with AI help

### Popular AI Tools for Testers

- Codeium – Free AI coding assistant
- Testim – Self-healing and fast AI testing
- Mabl – No-code testing with AI maintenance
- GitHub Copilot – AI code completion for tests
- Katalon – AI-powered web and API testing
- Functionize – Plain-English test creation

## Section 2: Introduction – Automation Testing

- Automation Testing
- When Automation Testing is needed?
- Use of Automation Testing
- What are the Different Automation Tools available in the Market?
- Difference between Selenium and QTP



## ● Section 3: Basis of Java – Introduction of Java

- Installation of Java
- Introduction to all predefined packages
- Know More about JVM,JRE&JDK
- What are the types of Variables?
- Data Types in Java

### **AI in Action:**

- Practice Java code snippets using Codeium or GitHub Copilot .
- Use AI to refactor Java code and generate optimized methods.

## ● Section 4: Object Oriented Programming Concepts

- OOPS
- Class
- Object
- Local, Instance and static variables
- Constructors
- Methods
- Arrays
- What is This keyword
- Final Keyword
- what is inheritance and its Types
- Working with super classes and subclasses
- Super Keyword
- Using types of polymorphism such as overloading, overriding, and dynamic binding
- Define Abstraction
- Define Encapsulation
- Abstract classes
- Define Interfaces
- String Methods
- Define Collections
- Exception Handling

### **AI in Action:**

- AI-powered platforms to visualize inheritance, polymorphism, and encapsulation.
- Use AI to auto-complete class and method structures.

## Section 5: I/O Streams

- Angular- Definition
- I/O using Java
- What are Files ? (Create/Read/Write operations on files)

### AI in Action:

- Generate file handling code using AI suggestions.
- Validate and debug I/O operations using AI error explanation tools.

## Section 6: Introduction to Selenium

- What is Selenium?
- Define the advantages of Selenium
- Explain the Architecture of Selenium WebDriver

### AI in Action:

- Use AI to simulate browser automation test scripts..

## Section 7 : Components in Selenium

- Overview oh IDE
- Overview oh RC
- Define Selenium-Grid
- What is Selenium Web Driver/Selenium 3.0

### AI in Action:

- Visualize Selenium architecture with AI-powered diagram tools.
- Use AI prompts to understand tool selection and combinations.

## Section 8 : Selenium Web Driver

- Define Selenium Internal Architecture
- Downloading web driver Jars configuring in eclipse
- What are the Drivers for Firefox, IE, Chrome, Opera, Safari and HTML Unit Driver?
- Difference between RC and WD
- Installing and Configuring Eclipse for Web Driver

### **AI in Action:**

- Leverage AI to auto-generate test scripts for user actions.
- Identify and resolve synchronization issues using AI tools.

## ● **Section 9: Locators in Selenium**

- ID
- What is name ?
- Define Class Name
- Define Link Text
- Partial Link Text
- What is X-Path?

### **AI in Action:**

- Use AI tools to find optimized and reliable XPath's.
- Auto-suggest locators using browser extensions powered by AI.

## ● **Section 10 : Exploring Web Driver**

- What is Edit box?
- What is Link?
- Define Button
- Define Checkbox
- Define Radio Button
- Whats is Drop Down Box?
- what is Select value?
- Display all values
- Select values step by step
- Capture screenshots
- Synchronization Commands In Web Drive
- Define Implicit wait
- Define Explicit wait
- Define Web Driver wait
- File uploads and File downloads
- Define Handling alerts
- Handling confirmation messages
- Define Keyboard actions
- Define Mouse actions



- Handling I frames
- Handling multiple tabs
- Define Handling popups
- Preparing web driver test cases using customized x-path
- Define Handling Web Tables

#### **AI in Action:**

- AI-assisted element interaction testing.
- Simulate edge cases in popups, alerts, and IFrames using AI-generated test paths.

## ● **Section 11 : Data Driven Framework**

- Interacting with Database
- Interacting with Property File
- Interacting with XML
- Interacting with Excel

#### **AI in Action:**

- Generate data-driven test scenarios using AI from sample Excel/DB.
- Use AI to validate data consistency across different sources.

## ● **Section 12 : Testing Framework**

- Installation of TestNG plug-in in Eclipse
- Define TestNG Annotations
- Define TestNG sample script
- How Selenium testing script from scratch ?
- How Creating Test suites using TestNG?
- How Reports generation using TestNG?
- Parameterized test cases using TestNG framework
- Preparing TestNG Parallel Suite
- Running test multiple times, depends on Methods, Grouping
- TestNG Listener Sample Program

#### **AI in Action:**

- Use AI to write annotations and test suites faster.
- AI-powered debugging of failed TestNG reports.

## ● Section 13 : BDD – Cucumber

- How to Set up Cucumber in Eclipse
- About Feature, Step Definition and Runner Class
- How to integrate Testng with Cucumber
- Define Gherkin Keywords
- Cucumber Options
- Define Parameterization in Cucumber
- Data Driven Testing using Examples Keyword and Data Table

### **AI in Action:**

- Create feature files using plain English and AI translation to Gherkin.
- Use AI tools to suggest step definitions automatically.

## ● Section 14 : Page Object Model Design Pattern

- Why Page Object Model & When it will be effective
- What are POM Design Rules?
- What are POM Implementation of Rules?
- Implementation of testcases using POM framework

### **AI in Action:**

- Generate POM class structure using AI input.
- AI refactoring tools for reusable page methods.

## ● Section 15 : Reporting

- Use AI to customize test reports with graphs and analytics.
- AI summary generators to convert test reports into human-readable insights.

### **AI in Action:**

- Use AI to customize test reports with graphs and analytics.
- AI summary generators to convert test reports into human-readable insights.

## ● Section 16: Code Repository

- Git Commands (Init, Git Commit, Git Pull, Git Push ..)
- Git Hub Implementations

### **AI in Action:**

- Git commit message generation and branching suggestions using AI.
- AI-based conflict resolution suggestions during merge.

## ● **Section 17: Build Tools**

- Define Maven Features
- What are Maven Build Process and Dependencies ?
- Maven Automation Project Build
- Define Best Practices

### **AI in Action:**

- Auto-generate pom.xml files using AI tools.
- Validate dependency issues with AI suggestions.

## ● **Section 18: CI Tools**

- Installation of Jenkins
- Setup Maven Project in Jenkins
- Schedule the build
- Best Practices

### **AI in Action:**

- Use AI to create Jenkins pipeline scripts.
- Troubleshoot Jenkins job failures with AI analysis.

## ● **Section 19: Real Time Project Implementation**

- Define Commerce Project
- Define Travel Booking
- Sample Banking Application





# SKILLS AND TOOLS

## Skills Covered

Web Browser  
Testing



Web  
Automation



Selenium Web  
Driver



Automation



Handling Browser



Java



## Tools Covered

Jenkins



TestNG



Maven



Selenium



Eclipse



Cucumber



# PLACEMENT SUCCESS STORIES

Designation                      Company                      Package  
.....



Yuvaraj

**Automation Test Engineer**



**9.5 LPA**



Subbiah M

**QA Automation Engineer**



**8.5 LPA**



Srivarshini

**Software Tester**



**6.8 LPA**



Subritha

**Automation Test Engineer**



**8.6 LPA**



Gokulnath

**Automation Tester**



**7.0 LPA**



Naveen Prabhu

**QA Automation Engineer**



**11.2 LPA**



# OUR HIRING PARTNERS





# Earn your Selenium Course Completion Certificate

Credo Systemz's certificate is highly recognized by  
30K Global companies around the world.



# WHAT OUR **TRAINEE** SAYS?



**Muthukumar**

**4.7** ★★★★★

Credo Systemz offers top-quality Selenium training in Chennai. The course structure is practical and industry-relevant. Live projects helped me apply what I learned with confidence.



**Rekha K**

**4.2** ★★★★★

The trainers at Credo Systemz made Selenium easy to understand. Each session was interactive with real-world use cases. I gained solid automation testing skills through their practical approach.



**Prakash Raj**

**5.0** ★★★★★

I had a great experience with Selenium training at Credo Systemz. The trainers were knowledgeable and explained every concept clearly. Hands-on sessions and real-time projects made the learning impactful.



**Vani Sri**

**4.9** ★★★★★

Selenium training at Credo Systemz exceeded my expectations. The modules were well-organized and easy to follow. Real-time project experience truly enhanced my understanding.



**Joshua Raj**

**4.0** ★★★★★

Learning Selenium at Credo Systemz was a great career move. They focus on hands-on training and real-time scenarios. I now feel confident to work on automation testing projects.



**Abinaya M**

**4.5** ★★★★★


Credo Systemz delivers excellent Selenium training with expert guidance. Practical sessions and live projects made the concepts clear. Highly recommend for anyone looking to master automation testing.



# CHENNAI


## VELACHERY

New # 30, Old # 16A, Third Main Road, Rajalakshmi Nagar, Velachery, (Opp. to Murugan Kalyana Mandapam), Chennai – 600 042.

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## OMR

Plot No.8, Vinayaga Avenue, Rajiv Gandhi Salai, (OMR), Okkiampettai, (Behind Okkiyampet Bus Stop) Chennai – 600 097.

 +91 96001 12302

# OVERSEAS

## USA

Houchin Drive, Franklin, TN -37064. Tennessee

## UAE

Sima Electronic Building, LLH Opposite, Electra Street – Abu Dhabi