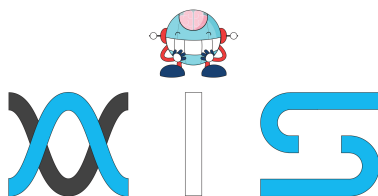




# Selenium 3.0 Training

simplilearn



 **SPARTAN**  
Allied Services  
*Deliver Results - Create Value*



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## Program Overview:

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Selenium 3.0 certification training course helps you gain an in-depth knowledge of concepts such as WebDriver, TestNG, Wait, Locating Techniques, AutoIT, Sikuli, Page Object Design Pattern, mobile testing, and Selenium Grid. This Selenium 3.0 certification features real-world examples to train you to use Selenium WebDriver effectively.

## Program Features:

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- > 40 hours of instructor-led online training
- > Two real-life, industry-based projects

## Delivery Mode:

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**Blended** Learning

## Prerequisites:

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Basic knowledge of Core Java. This course starts with a refresher on Core Java, where basic concepts are explained.

## Target Audience:

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- > Test managers
- > Test engineers
- > Test leads
- > Test analysts
- > Quality assurance engineers
- > Software developers



## Key Learning **Outcomes:**

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This course will enable you to:

- Revise the Core Java concepts that are essential for learning Selenium WebDriver
- Understand the scope of test automation in DevOps and fundamentals of test automation
- Create Test Cases using Selenium IDE – Record and Playback tool
- Understand Selenium WebDriver architecture and various layers of interaction
- Set up WebDriver project in Eclipse and write test cases using TestNG
- Locate elements using various locating techniques
- Work with various WebDriver commands to drive web browser and WebElement commands to deal with various web components
- Learn to handle various possible scenarios regarding pop-ups, multiple windows, frames, and taking screenshots
- Implement page object design pattern and data-driven testing
- Understand how to use Maven, ANT, AutoIT, Sikuli, log4j, and listeners
- Learn to use Selenium Grid with TestNG for parallel execution
- Execute a project from scratch by building an automation framework and automating a few test scenarios

## Certification Details and **Criteria:**

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### **Online Classroom:**

- Attend one complete batch
- Submit at least one completed project
- Successful evaluation in any one of the course-end assessments with a minimum score of at least 60 percent



# Course Curriculum:

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## Lesson 01 - Core Java Refresher

- > Keywords and Syntax
- > Variables, Operators, and Control Flows
- > OOPs Overview from Java Context
- > Exception Handling, File and DB handling
- > Collections Overview, and ArrayList example

## Lesson 02 - Automation Basics

- > Fundamentals of Test Automation
- > ROI in Automation
- > Automation Framework
- > Various Tools and Comparison with Selenium

## Lesson 03 - Introduction to Selenium WebDriver

- > What Selenium is and How it is Used in the Industry
- > Features of Selenium
- > Selenium IDE - Overview with a Couple of Examples
- > WebDriver Architecture
- > Installation of Selenium and Supporting Tools/Frameworks

## Lesson 04 - Locating Techniques

- > Simple WebDriver Program Demonstration
- > Basics of HTML Page, Tags, Attributes, and Visible Texts
- > Importance of Attributes in Locating Elements
- > Installation of Firebug and Firepath in Firefox Browser
- > Locators and Eight Locating Techniques
- > Creating Robust Locators Using CSS and XPath

## Lesson 05 - WebDriver Basics - I

- > Execute Tests in Firefox, Chrome, and Internet Explorer
- > WebDriver Commands: Driving Browsers and Handling Cookies
- > WebElement Commands
- > Handling Various WebElements
- > WebDriver Timeout Methods





## Lesson 06 - WebDriver Basics - II

- › Handling Multiple Elements Using findElements Method
- › Handling Alerts, Pop-ups, and Frames
- › Limitation of Implicit Wait and How Explicit Wait Helps
- › Advanced User Interactions
- › Taking Screenshots
- › Working with Firefox Profiles
- › Handling File Uploads Using AutoIT
- › Introduction to Flash Application Testing using Selenium WebDriver

## Lesson 07 - TestNG

- › Arranging Tests in 3-As format
- › F.I.R.S.T Principles and SRP
- › Various Annotations in TestNG
- › TestNG Configuration File
- › Configuration Annotations
- › Attributes of @Test
- › Parallel Test Execution Capability
- › Assertion APIs
- › Passing Parameters to Tests
- › Configuring Test Suites
- › Reports Using TestNG
- › Reports Using ReportNG

## Lesson 08 - WebDriver - Framework

- › Introduction to Various Frameworks
- › Page Object Design Pattern
- › Data-Driven Tests Using TestNG and POI
- › Introduction to Maven and ANT
- › Use of Log4j
- › Use of Listeners
- › Typical Components of a Framework
- › Overview of BDD, TDD
- › Overview of Sikuli Tool for UI Testing
- › Introduction to Jenkins
- › Configuring Jenkins to Invoke Selenium Tests



## Lesson 09 - Selenium Grid

- > What is Selenium Grid?
- > When to Use Selenium Grid
- > Setting up Grid - Hub and Nodes?
- > Configuring TestNG.xml to Run Tests on Grid

## Lesson 10 - Project Execution

- > Automate an eCommerce Application
- > Test Automation Requirements Description
- > What Next? How to Start?
- > High-Level Framework
- > Configurability—No To Hard-Coding
- > Modularity—Re-Use And DRY
- > Test Data Management
- > Logging And Reporting

## Lesson 11 - Mobile App Test Automation Using Appium

- > Introduction Mobile App Test Automation
- > Introduction to Appium
- > UIAutomator with Appium
- > Locating Elements - UIAutomator Framework
- > DesiredCapabilities for Android

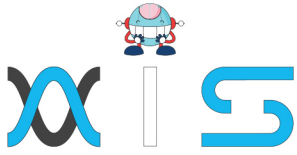
## Course End Projects:

### Project 1: Ethnic Store Project 1

Create an application that hosts a range of products from different manufacturers. This app needs to provide customers the ability to register and purchase various products.

### Project 1: Ethnic Store Project 2

In this project, you will work on implementing the most common e-commerce application features that are typically found on any e-commerce website.



## AIS

With the rising demand in scalable technology, AIS provides tailored goal-setting based on your organization's needs and expectations. With products geared towards the growing needs of your organization's customers and employees, AIS has innovative and value-driven solutions.

### Learning Partners



#### SAS Management, Inc.

Premiere training and consulting services company, SAS Management, Inc. has been in the industry for a decade. SAS Management, inc. focuses on creating value in every learning and consulting experience by providing the best possible output – whether in a virtual classroom setup, e-learning, or face-to-face. SAS Management, Inc. is the leading training and certification provider for ITIL, Project Management Professional, ISO certifications, PRINCE2, SDI Service Desk Analyst and Manager, Agile, and a host of many programs and courses.



#### Simplilearn

Tagged as the “World's #1 Online Bootcamp”, Simplilearn provides online education and in-house training for professional certification courses. Founded in 2010, Simplilearn offers more than 100 programs, helping professionals reach their learning potentials needed to work in the digital economy.

### Technology Partner



#### Freshworks

With over 40,000 customers, Freshworks is a business solutions software provider with products ranging from IT helpdesk and service desk, customer relationship management, live chat, marketing automation, phone system, and HR.

### Partners & Affiliates

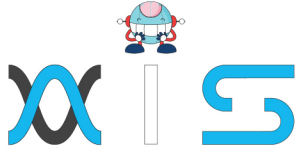


PECB

SDI  
Service Desk Institute

EC-COUNCIL





*The program presented, as well as a wide range of programs are products of the partnership of AIS, SAS Management, Inc., and Simplilearn. With a common goal of providing the best practice of facilitating learning with an array of choices available in the online platform in this time of digitization.*

## Office Addresses

### AI Services

Juan Antonio III Building  
315 Maysilo Circle, Mandaluyong, Philippines

### SAS Management, Inc.

- **Head Office**

Unit 1602 Cityland 10 Tower  
2 6815 HV dela Costa cor Ayala Avenue  
Makati City, Philippines

- **Branch Office**

Unit 204 Villa Building  
Jupiter St. corner Makati Avenue  
Makati City, Philippines

- **Branch Office**

Room 201 2nd floor OLS Building  
443 Gorordo Avenue., Brgy. Kamputhaw  
Cebu City, Philippines

- **Branch Office**

Malaysia - SAS Management  
Sdn Bhd 6f-16, IOI Business Park,  
Persiaran Puchong Jaya  
47170, Selangor

### Simplilearn

- **Simplilearn Americas, Inc  
Pvt Ltd.**

201 Spear Street, Suite 1100,  
San Francisco, CA 94105 United States

- **Simplilearn Solutions  
Pte Ltd.**

NALANDA 53/1 C, Manoj Arcade, 24th Main Rd,  
Sector 2, HSR Layout, Bengaluru  
560102, Karnataka, India.

- **Simplilearn Singapore**

#14-302, The Plaza, 7500A Beach Rd,  
Singapore 199591