

FULL STACK AUTOMATION (SDET)

WHAT YOU GET

- 6 weeks of Basic + 2 weeks of Advanced Automation Course training
- 10 hours weekly training
- 5 days online access to teacher
- Online Training with a Live Instructor
- Life time access on Recorded class videos
- Required Automation Testing software's will be provided

WHAT YOU'LL LEARN

BASIC COURSE: (6 WEEKS)

Module 1: Overview on Software Testing & Automation

Module 2: Java Programming

Module 3: Selenium WebDriver

Module 4: TestNG

Module 5: Extent Reports, Page Object Model & Log4j

Module 6: Maven

Module 7: Automation Frameworks

Module 8: Jenkins, GIT & Github

Module 9: Docker & Zalenium (Recorded videos)

ADVANCED COURSE (2 WEEKS)

Module 10: Cucumber

Module 11: API Testing using Rest Assured

Module 12: Appium (Recorded videos)

BASIC COURSE

Module 1: Overview on Software Testing & Automation

- What is Software testing?
- Ways of Software Testing
- Challenges in Manual testing
- Use of automation Testing
- Tools for Automation Testing
- What is Selenium?
- Features of Selenium
- Limitations in Selenium

Module 2: Java Programming

- Download and install Java
- Setup Java Environment
- How to use Eclipse/IntelliJ IDEA
- Basic Java Program
- Compile and run a Java program
- Understanding console output
- Java Variables and Data Types
- Java Operators
- Conditional statements
- Looping statements
- Single Dimensional array
- Double Dimensional array
- Object class
- String Class
- String methods
- Classes and Objects
- Java methods
- Passing parameters to the methods
- Call by value and call by reference
- Java Constructor
- Method Overloading
- Constructor Overloading
- this, final keywords
- Static variables and methods
- Java Inheritance
- Method Overriding
- Java Interfaces
- Access Modifiers

- Java Packages
- Exception Handling
- Array List
- Hash Map
- JDBC

Module 3: Selenium WebDriver

- Download WebDriver API
- Create WebDriver Project in Eclipse
- Create WebDriver test case
- Execute test case on multiple browsers
- Locators
 - What are locators?
 - Types of Locators
 - Capturing XPath in different ways
 - How to use ChroPath in Chrome
 - Types XPath
 - Writing XPath
 - Built-in functions in XPath
 - Handling Dynamic elements using XPath
- WebDriver commands
 - Browser commands
 - Get commands
 - Switching commands
 - Navigation commands
 - Conditional commands
 - Implicit, Explicit and Fluent Waits
- Handling Web Elements
 - Textbox/Input box
 - Links
 - Radio Button/Checkbox
 - Dropdown box/Combo box
 - Multi Select dropdown
 - List box
 - Calendar/Date Picker
 - Web Links
 - HTML frames/Iframes
 - Web/HTML Tables
- Mouse actions using Actions class
 - Mouseover
 - Mouse double click
 - Mouse right clicks
 - Drag and Drop
 - Handling Slider/scroll bar

- Resizing
 - Handling Tooltips
- Keyboard actions
- Working with Robot Class
- Working with Sikuli
- How to use JavaScript Executor
- Browser profiles
- Desired Capabilities
- Handling cookies
- Headless browser testing
- Capturing Screenshots
- Data Driven Testing in Selenium
 - What is data driven testing?
 - Apache POI API
 - Data Driven Tests using multiple sources
 - Excel/csv files
 - Java HashMap
 - Databases
 - Text files
- Log4j for logging

Module 4: TestNG

- What is TestNG? Features of TestNG
- Install TestNG in Eclipse
- How to write TestNG Test case
- Annotations in TestNG
- Understanding testng.xml
- TestNG html Report
- Prioritizing tests
- dependsOnMethods
- Skipping tests
- Grouping methods
- Parameterization
- Passing parameters using xml
- Parallel testing
- Data Provider
- Invocation methods
- TestNG Listeners

Module 5: Extent Reports, Page Object Model & Page Factory

- Generating Extent Reports
- Page Object Model - Creating Page objects
- Page Factory – @FindBy annotation

Module 6: Maven Integration with Selenium

- What is Maven and Why Maven?
- Installing/Configuring Maven
- Creating Maven Project
- Importing Maven Project into Eclipse
- What is POM.xml?
- Adding Dependencies to POM.xml

Module 7: Automation Frameworks

- What is Framework?
- Various Types of Frameworks
- Implementation of Hybrid Driven Framework from the scratch
 - Creating Maven Project
 - Update pom.xml with dependencies
 - Creating page objects and Object repository
 - Creating utility files
 - Setting up configuration files
 - Creating automation test scripts
 - Creating data driven test scripts
 - Generating extent reports
 - Generating logs using log4j
 - Execute test scripts
 - Emailing test reports
 - Execute test scripts through Maven
 - Execute test scripts using bat file

Module 8: Jenkins, GIT & GitHub

- What is Continuous Integration?
- Continuous Integration Tools
- Download and install Jenkins
- Maven integration with Jenkins
- Run selenium test scripts through Jenkins
- Downloading and Installing GIT
- Installing GIT and GITHUB plug-ins for Jenkins
- Git commands
- Uploading project to Github

Module 9: Docker with Selenium Grid & Zalenium

- What is Virtualization?
- What is Containerization/Container management?
- What is Docker, Docker Container & Docker Image?
- What is Docker Hub?
- Docker Container Life Cycle
- Virtualization Vs docker

- How Docker helps in Automation?
- Docker Terminology
- Docker Commands
- Run Selenium Tests on Docker Containers
- Selenium Grid on Docker

ADVANCED COURSE

Module-10: Cucumber

- Cucumber Introduction
- TDD (Test Driven Development) Vs BDD (Behavior Driven Development)
- Set Up Cucumber with Eclipse & IntelliJ IDE's
- Install Cucumber Plugins in Eclipse & IntelliJ IDE's
- Cucumber Environment
- Setting Up Cucumber with Selenium
- Maven dependencies for Cucumber
- Cucumber Selenium Java Test
- Cucumber Gherkins Keywords
- Cucumber – Features file
- Cucumber – Scenarios
- Cucumber – Annotations
- Cucumber - Scenario Outline
- Cucumber – Tag
- Cucumber - Data Tables
- Parameterization in Cucumber
- Cucumber - Comments
- Cucumber - Hooks
- Cucumber - Command Line Options
- Cucumber - JUnit Runner
- Cucumber – Reports generation both Html report and Json report

Module-11: API/Webservices Testing using RestAssured

- Basics of API's & Webservices
- API Testing using Postman Tool
- REST Assured Setting up environment (Eclipse, Maven, TestNG & Rest Assured)
- Keywords used in BDD Approach
- How to send GET Request
- How to send POST Request
- How to send PUT Request
- How to send DELETE Request
- Validating Headers
- Authorization parameters
- Validations on JSON Response

- Validations on XML Response
- How to rootPath & detachRootPath in RestAssured
- Different ways of Reading Response
- Working with Response Headers
- Working with Response Cookies
- Handling Authentication types
- Types Parameters and working with Parameters
- How to use Request Specification Builder & Response Specification Builder
- Logging
- Serialization & De-Serialization JSON
- serialization & De-Serialization XML
- Rest Assured End-to-End Test Case
- RestAssured Automation Framework development
- How to run API tests using Maven CLI
- Run Rest Assured tests in Jenkins

Module-12: Appium

- Introduction to Mobile Testing and Appium
- Importance of Mobile Phones
- Types of Mobile Apps
- Available Mobile Testing Tools
- Why Appium?
- Advantages & Limitations of Appium
- What is an Appium
- Appium Architecture
- Environment setup
- APK File, Simulators, Emulators and real devices
- What are Desired Capabilities?
- How to get locators in the App
- Invoking Android APP using .apk file – First Automation test script
- How to use UIAutomatorViewer Tool – Locate Elements in the App
- How to use XPath, ID, ClassName and multiple objects of App with Index
- How to use AndroidUIAutomator to identify objects
- Working with Native, Web & Hybrid Apps on Android