

Maven in Test Automation

- Course Overview
- Introduction to Automation Testing
- Introduction to Maven
- Features of Maven
- Maven Installation and Setup
- Creating Maven Project from CLI
- Creating Maven project from IDEA
- Creating Maven project from Eclipse IDE
- Which IDE to use
- Understanding Maven POM file
- Maven Dependencies
- Maven Life Cycle and Phases
- Exploring Maven Repositories
- Working with Maven Plugins
- Maven properties
- Maven Profiles
- Maven and Test Automation
- Maven Best Practices & Tips

TestNG

- Introduction to TestNG
- Significance of TestNG
- TestNG Installation and Setup (Both IntelliJ IDEA & Eclipse)
- Parallel Execution
- Understanding TestNG Annotations - Part 1
- Understanding TestNG.xml
- TestNG Annotations Continued
- Grouping and Prioritizing Tests in TestNG

- Parameterizing Tests with TestNG
- TestNG Assertions
- TestNG Data Provider
- TestNG Reporting
- TestNG and Selenium Integration
- TestNG Listeners
- TestNG Best Practices and Tips

Selenium WebDriver & Grid

- Introduction to Selenium Tool Suite
- What is Selenium IDE
- Basics of Selenium IDE
- Introduction to Selenium WebDriver
- Selenium WebDriver Installation and Setup
- Working with Web Elements in WebDriver
- Locator Strategies in Selenium
- XPath Locators
- Advanced XPath using Axes
- CSS Locators
- Handling Different Web Controls with WebDriver
- Advanced Interactions with WebDriver
- Web Tables
- Alerts
- IFrames
- Shadow DOM
- Wait Mechanism in WebDriver
- Exceptions in WebDriver
- JavaScript Executor
- Taking Screenshots
- WebDriver Architecture
- WebDriver Major Classes & Interfaces

- Different Browser Drivers in Selenium WebDriver
- Cross-Browser Testing
- Introduction to Selenium Grid
- Setting up Selenium Grid
- Parallel Testing with Selenium Grid
- Integrating Selenium WebDriver with TestNG and Maven
- Selenium WebDriver Best Practices and Tips

Cucumber BDD

- What is Behavior Driven Development?
- Introduction to Cucumber BDD
- Cucumber BDD Installation and Setup
- Writing Feature Files in Cucumber BDD
- Step Definitions and Glue Code in Cucumber BDD
- Running Tests with Cucumber BDD
- Parameterizing Tests in Cucumber BDD
- Cucumber Hooks
- Cucumber Reporting
- Cucumber BDD and Selenium Integration
- Cucumber BDD Best Practices and Tips

Jenkins - Continuous Integration (CI) Systems

- What is Continuous Integration
- Introduction to Jenkins
- Jenkins Installation and Setup
- Jenkins Configuration & Tools
- Understanding Jenkins Jobs and Builds
- Understanding Jenkins Jobs & Builds - Contd
- Working with Jenkins Plugins

- Jenkins Build Parameters
- Jenkins and Source Control
- Jenkins Pipelines - Declarative & Scripted
- Jenkins and Test Automation - Selenium Tests
- Reporting in Jenkins
- Jenkins Best Practices and Tips

API Testing

- Introduction to API Testing
- Introduction to Postman
- API Testing with Postman
- Advanced Postman Concepts
- Introduction to REST Assured
- API Testing with REST Assured
- Advanced REST Assured Concepts
- Integrating API Testing in the Test Automation Framework
- Best Practices and Tips for API Testing

Building Test Automation Framework from Scratch

- Introduction to Test Automation Frameworks
- Designing the Test Automation Framework
- Setting up the Test Automation Framework
- Managing Dependencies with Maven
- Implementing Page Object Model in the Framework
- Integrating Cucumber BDD in the Framework
- Integrating TestNG in the Framework

Interview Questions for Automation Testing

- Interview Questions