

Automation Testing Course Content

Course Overview

This course provides a hands-on approach to automation testing, emphasizing practical applications and minimizing excessive focus on Java. Key modules include Java essentials, unit testing, API testing, file and database testing, UAT with Selenium, creating a test framework, CI/CD integration, and test reporting with Test Rail. Participants will learn tools such as Postman, Rest Assured, Test Rail CLI, and Jenkins, and develop skills that directly apply to automation testing scenarios.

Course Duration Breakdown

- Total Hours: 36
- Java Essentials: 8 hours
- Unit Testing: 4 hours
- API Testing: 6 hours
- File and Database Testing: 5 hours
- UAT with Selenium: 3 hours
- Creating a Test Framework: 6 hours
- CI/CD Integration: 3 hours
- Test Reporting with Test Rail: 1 hour

Detailed Course Modules

Module 1: Java Essentials for Automation Testing (8 Hours)

- Introduction to Java and its role in automation testing
- Object-Oriented Programming (OOPs) concepts
- Working with arrays and lists
- Understanding interfaces
- Error handling and debugging techniques
- File handling basics

Outcome: Participants will gain foundational knowledge of Java tailored for automation testing.

Module 2: Unit Testing with JUnit (4 Hours)

- Introduction to unit testing principles
- Setting up and using JUnit
- Writing effective test cases
- Hands-on exercise: Implementing unit tests

Outcome: Confidence in utilizing unit testing techniques and tools.

Module 3: API Testing (6 Hours)

- Introduction to APIs and their role in testing
- Testing APIs using Postman
- Rest Assured for code-based API testing
- Hands-on exercise: Creating and executing API test cases

Outcome: Proficiency in testing APIs using both tools and code.

Module 4: File and Database Testing (5 Hours)

- Navigating folders and file placement
- Exporting test results to files
- Connecting to databases for testing
- Verifying and updating database records
- Initiating jobs via database updates
- Hands-on exercise: File and database testing

Outcome: Practical knowledge of file management and database verification.

Module 5: UAT with Selenium (3 Hours)

- Introduction to User Acceptance Testing (UAT)
- Overview of Selenium and its applications
- Hands-on exercise: Automating UAT scenarios

Outcome: Understanding and implementing UAT with Selenium.

Module 6: Creating a Test Framework (6 Hours)

- Overview of automation frameworks
- Designing a framework with practical examples
- Case study: Real-world application of a test framework
- Hands-on exercise: Building and implementing a framework

Outcome: Ability to create and effectively use automation frameworks.

Module 7: CI/CD Integration with Jenkins (3 Hours)

- Overview of Jenkins and its importance in CI/CD
- Connecting the automation suite with Jenkins
- Hands-on exercise: Configuring Jenkins for automation testing

Outcome: Proficiency in integrating Jenkins into the testing process.

Module 8: Test Reporting with Test Rail (1 Hour)

- Introduction to Test Rail CLI
- Automating test results, snapshots, and logs
- Linking test results with Git commit versions

Outcome: Ability to integrate Test Rail for comprehensive reporting.