

# Advanced Junit Testing and

## JIRA

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## JIRA

### Topics

- Jira Overview
- Project Boards
- Enrich Issues
- Kanban Method
- Scrum Projects
- Searching
- JQL
- Filters
- Epics
- Dashboards
- Putting it all Together

## JUNIT

### 1. Introduction to TDD

- Introduction to Unit Testing
- Introduction to TDD
- Test First Vs Test Last
- TDD Rhythm: Red, Green, Refactor
- Crucial Design Principles
- TDD and Design
- Avatars of TDD

### 2. JUnit Introduction

- Junit Simple Example Using Eclipse
- Junit Annotations
- Junit Assertions
- Retrieve data using Sub :Queries

### **3. JUnit Advanced**

- Ignoring a test
- Executing tests in order
- Creating parameterized tests
- Working with timeouts
- Exploring JUnit theories
- Dealing with JUnit rules
- Working with the Verifier rule
- Learning the Test Watcher rule
- Working with the Test Name rule
- Handling external resources
- Test Factory For Dynamic Tests
- Tags ,Filtering Vs Label ,Group Test
- Custom Extensions

### **4. JUnit Assumptions**

- Introduction to Junit 5 Assumptions
- Introduction to Junit 5 Packages
- Assume TimeZone,Locale,OS etc

### **5. Test Doubles**

- Dummy Objects With Scenarios
- Stub Objects With Scenarios
- Fake Objects With Scenarios
- Mock Objects With Scenarios

### **6. MOCKITO**

- Why should you use Mockito?
- Understanding the Mockito architecture
- Adding Mockito to a project's class path
- Getting started with Mockito for JUnit
- Getting started with Mockito for TestNg
- Adding/Verifying Behaviors
- Exception Handling

- Ordered Verification
- SOA /Remote Object Testing with Mockito

## **7. Mocking Libraries Comparison**

- Mockito versus EasyMock
- Mockito versus JMockit
- Mockito versus JMock
- Mockito versus Spock

## **8. Mock Testing with PowerMock**

- Getting and installing PowerMock
- Mocking static methods
- Verifying method invocation
- Mocking final classes or methods
- Mocking constructors
- Mocking private methods

## **9. Testing Micro Services or API Testing**

- Testing Micro Services or API Testing

## **10. Testing Restful Using Rest-Assured**

- Introduction to Rest-Assured
- Simple Example Test
- REST-assured Setup
- JSON Schema
- Validation Validate a Response
- Global Validation Configuration
- Anonymous JSON Root Validation
- Floats and Doubles
- XML Response Verification
- XPath for XML

## **11. Test Automation**

- Jenkins With Junit & Continuous Integration
- Elements of JavaScript Program
- How to configure Junit with Jenkin
- Code coverage Tools like Eccelema Objects

## **12. TestNG**

- What is TestNG?
- Installing TestNg in Eclipse
- Understanding usage of TestNg annotations
- Running a Test
- Batch Running of tests
- Skipping Tests
- Parameterizing Tests
- Assertions/Reporting Errors
- TestNg Reports
- Creating a test with packages
- DataProvider Using Annotation
- Grouping Test
- Dependency test
- Test with single test method dependency
- Test that depends on multiple tests
- Test that depends on Group
- Writing parallel test/Multithreading

## **13. BDD With Cucumber**

- Understanding behavior-driven development
- Setting up an environment for Cucumber BDD

## **14. Cucumber Basics**

- Your First Cucumber Script Understanding classpath
- Cucumber Selenium Java Test
- Feature File
- JUnit Test Runner Class
- Gherkin Keywords
- Step Definition
- Cucumber Options

## **15. Data Driven Testing**

- Parameterization in Cucumber
- Data Driven Testing Using Examples Keyword
- Data Tables in Cucumber
- Maps in Data Tables

