

Training: Compendium CE
 Practical unit testing with Java


FORM OF TRAINING	MATERIALS	PRICE	DURATION
Traditional	Hardcopy	400 EUR	2 days
Traditional	Digital materials	400 EUR	2 days
Traditional	CTAB Tablet	550 EUR	2 days
Distance learning	Hardcopy	400 EUR	2 days
Distance learning	Digital materials	400 EUR	2 days
Distance learning	CTAB Tablet	400 EUR	2 days

LOCATIONS

Krakow - 5 Tatarska Street, II floor, hours: 9:00 am - 4:00 pm

Warsaw - 17 Bielska Street, hours: 9:00 am - 4:00 pm

TRAINING GOALS:

Workshops are based on simple, real-life, spring-based application as a case study, which is used to practice designing, writing and maintaining of unit tests. We focus on the most useful and popular nowadays frameworks: JUnit, Mockito and AssertJ, using Java 8 features extensively. We not only describe their capabilities in detail, but also show how to combine them together to significantly facilitate the creation of well separated and transparent test cases. Participants will acquire practical knowledge about the most common mistakes and best practices (including TDD and BDD).

Outcomes

- A good understanding of unit testing, best practices and must-know testing frameworks
- Access to exclusive materials covering the scope of the workshops.

CONSPECT:

- Introduction
 - The purpose of software tests
 - Types of tests and key differences
 - Do we really need unit tests? - case study
 - Place of tests in software deployment process
- JUnit

- Introduction: general rules, execution order, annotations, assertions
- Exercise Testing exceptions: @Rule and @ExpectedException
- Exercise
- Test suites, parameterized tests, categories
- Exercise
- Unit test best practises
 - Defining good unit tests
 - Examples of poor unit tests - case studies
 - Naming conventions
 - Test boundaries, avoiding interdependencies
 - TDD and BDD
 - Is my code coverage sufficient?
 - Exercise
- Mocking with Mockito
 - The need for mocking frameworks
 - Difference between mocks, stubs, fake & dummy objects
 - Basic mockito usage, BDD in Mockito
 - Exercises
 - Mockito advanced techniques
 - Exercises
- Let's read our tests like a book - AssertJ
 - Let's play with AssertJ - replacing Junit assertions with AssertJ
 - Exercise
 - Can we make current test cases simpler?
 - AssertJ additions for Java 8
 - More Exercises - including refactoring of existing test cases
- Exercises
 - Complex exercises using combination of previously introduced libraries

REQUIREMENTS:

- Basic Python knowledge,
- Recommended: basic machine learning Knowledge

Difficulty level



CERTIFICATE:

The participants will obtain certificates signed by Compendium CE.

TRAINER:

Certified Compendium CE Trainer.