

TDD For Investment Banking Training Course

Overview

This is an advanced two days TDD course aimed specifically at developers working in the investment banking sector. It assumes previous knowledge of TDD and main refactoring techniques. Its aim is to give some hands-on TDD training by using examples that expose some of the typical issues found in investment banking systems, e.g., asynchronous behaviour, time dependent behaviour, and interfacing with databases.

The course is very hands-on and there will be exercises throughout the course. The second day will have a longer hands-on session where the students will apply all the concepts learnt to a system developed from scratch.

TDD is an essential technique for practicing effective Agile software development. TDD will also benefit those working in more traditional development environments.

This course is available in Java, C# and C++.

You will learn

How to practice Test Driven Development to test typical investment banking systems, reduce bugs, reduce delivery time and improve schedule predictability. All examples and exercises are drawn from the investment banking environment, e.g. option valuation and interfacing to third party trading platforms. Participants are expected to have experience of the banking world.

After a brief refresher on TDD the course quickly jumps into hand-on exercises. Participants will learn how to deal with third party APIs, asynchronous communication, concurrent and time dependent behaviour.

By using real life scenarios and problems from the banking domain participants will benefit from accelerated learning. As a result they will be able to apply these lesson to their everyday work immediately on completion of the course.

Programme

Key TDD topics

- The business case for quality and test driven development
- Testing Basics
- How TDD supports refactoring
- Testing frameworks - JUnit for Java, NUnit for C# and CATCH for C++ (alternative frameworks may be covered on request)
- Mocking frameworks
- Testing at the interface
- Increasing cohesion and reducing coupling
- Traditional & London school of TDD

Typical Banking Scenarios

- Testing Asynchronous and Concurrent Behaviour
- Time Travel--Testing Time Related Behaviour
- Testing Persistency
- Interfacing with External Systems

Related topics

- Walking Skeleton
- Refactoring
- TDD at the System Scale - including ATDD and Specification by Example (SbE & BDD)
- Working with Business Analysts using Specification by Example
- Design patterns to assist test driven approach
- How to avoid brittle tests

Exercises

One short and one long exercise are used to illustrate the key topics of the course:

- Options Valuation with TDD
- Test Driven interfacing with a trading platform