



## Test Driven Development

### Abstract

Test Driven Development (TDD) is a well known and appreciated practice exercised by many development teams around the globe.

Unlike what the name might suggest, TDD is not a testing technique but a development technique that results in cleaner high quality code. Implementing effective and useful TDD is a complicated task that requires developers to have both discipline and familiarity with a set of test automation tools.

This course explains the TDD methodology, introduces a recommended set of open-source testing tools and includes hands-on exercises (about 50% of the course's duration) to practice the tools.

### Target Audience

Object-Oriented developers, team leaders and project managers.

### Prerequisites

Familiarity with the Object Oriented language.

### Course curriculum

#### Introduction to Test Driven Development

- Traditional software testing
- Functional/Regression/Integration/Unit Testing
- Introduction to Agile software development
- The Test First approach
- Test First challenges
- Automated Testing
- Demo

#### XUnit



Introduction

TestCase

TestSuite

Test's life cycle

Running xUnit from the IDE

## **Mock Objects**

Mediator objects and Testing

Introduction to Mock objects

Introduction Mock frameworks

Setting Mock Expectations

Mock Verification

## **Writing efficient tests and testable classes**

What should be tested?

How to write a test - Best Practices

## **Design for Testability**

Should testing change my design?

What is design for testability

Tips

Dependency Injection

## **Acceptance Test Driven Development**

Challenges

The ATDD solution

ATDD Frameworks

**Duration**

2 days.