

# Testing Training: Professional Unit Testing (SBTST, 2 jours)

---

## Description

The course Professional Unit Testing (Testing Training) explore unit testing with Visual Studio .NET. The training begins with a discussion of Unit Testing concepts & terminology. The course also covers creating & executing unit tests, Mock objects & Test Doubles & discusses the pros and cons of each approach. Also included is an exploration of test isolation & decoupling.

## Tarifs

- Tarification: \$1,500/person
- Rabais de 10% lorsque vous inscrivez 3 personnes.

## Plan de cours

### The Foundations of Unit Testing

---

Overview of Testing in an Agile Context

When is Unit Testing Valuable: Refactoring, Legacy Code and New Projects

What is Unit Testing?

When does Unit Testing Happen?

The Art of Effective Test Driven Development

Who does Unit Testing?

What are the Benefits of Unit Testing?

The Unit Test as Test Driver: Test Driven Development

What are the Tools of Unit Testing?

What is a Good Unit Test?

### Creating a Unit Test

---

Creating a Visual Studio Unit Test Project

Setting Attributes for Unit Testing

About the Test Abstraction: Object, Class or Functional Unit

Working with Assert Statements

Creating Test Methods

Running Tests and Analyzing Results

Creating Reports

### Creating Test Doubles

---

Overview of Available Techniques for Developing Test Doubles

When is it a Good Idea to Develop a Test Double?

Using Dummy Objects: Advantages and Disadvantages

Using Fake Objects: Advantages and Disadvantages

Using Stubs: Advantages and Disadvantages

Using Mock Objects: Advantages and Disadvantages

Practical Considerations

### Isolation Concepts

---

What is Isolation? The Need for Decoupling

Advantages and Disadvantages of Isolation

What is a Collaborator?

Creating Fake and Dummy Objects

Creating and Using Stubs

## Mock Based Unit Testing

---

Exploring the Need for Mock Objects

Isolation using Mock Objects

Choosing Mock Object Candidates

Implementing Mock Objects with Code

Implementing Mock Objects with NSubstitute, EasyMock or RhinoMock

Design Considerations in Choosing a Classical or a Mock Based Approach