

Test-Driven Development Using Visual Studio and C#

Duration: 3 Days · **Training format:** Virtual Classroom / Online

Description

An emerging software engineering paradigm is test-driven development, where tests are written early and testing is performed continuously during the development process. Problems are discovered early and corrected when they are found. This one-day Test-Driven Development Using Visual Studio and C# training class for developers explains the methodology of test-driven development and the use of the unit testing framework that comes with Visual Studio 2017, including the free Community version.

This is practical C# training, with many example programs and tests written in C#, including a cumulative case study. The goal is to quickly bring you up to speed in doing unit testing in your .NET development projects.

Delegates will learn how to

- Understand the principles of test-driven development.
- Acquire fluency in developing tests using the Visual Studio unit testing framework.
- Efficiently exercise test suites using Visual Studio and MSTest.

Outline

Test-Driven Development

- What Is Test-Driven Development (TDD)?
- Functional Tests / Customer Tests
- Unit Tests / Programmer Tests
- Test Automation
- Simple Design
- Refactoring
- A Visual Studio Test Drive
- TDD with Legacy Code

Visual Studio Unit Testing Fundamentals

- Structure of Unit Tests
- Unit Testing Framework

- Assertions
- Test Cases
- Test Classes
- Test Runners
- Ignoring Tests
- Initialization and Cleanup

More about Unit Testing Framework

- Expected Exceptions
- Custom Asserts
- Playlists
- Debugging Unit Tests
- MSTest
- Refactoring

Prerequisites

There is no prerequisite