Course duration

- 1 day

Course Benefits

- 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.

Course Outline

1. Test-Driven Development
    1. What Is Test-Driven Development (TDD)?
    2. Functional Tests / Customer Tests
    3. Unit Tests / Programmer Tests
    4. Test Automation
    5. Simple Design
    6. Refactoring
    7. A Visual Studio Test Drive
    8. TDD with Legacy Code
2. Visual Studio Unit Testing Fundamentals
    1. Structure of Unit Tests
    2. Unit Testing Framework
    3. Assertions
    4. Test Cases
    5. Test Classes
    6. Test Runners
    7. Ignoring Tests
    8. Initialization and Cleanup
3. More about Unit Testing Framework
    1. Expected Exceptions
    2. Custom Asserts
    3. Playlists
    4. Debugging Unit Tests
    5. MSTest
    6. Refactoring

Class Materials

Each student will receive a comprehensive set of materials, including course notes and all the class examples.

Class Prerequisites

Experience in the following *is required* for this C# class:

- The student should have a basic knowledge of the .NET Framework and experience programming in C# with Visual Studio.