Test-Driven Development in C# / NUnit Crash Course

🕐 Duration: 1 Days

🈂 Available Languages: English German

Audience

Software Crafters, Software Developers, Software Testers

Precondition

Basic knowledge of C#.

Goals

Learn the benefits and mechanics of developing software using Test-Driven Development.

Contents

Test-Driven Development (TDD) is a software development practice which helps you write better code. It enables you to:

- Craft better-designed solutions,
- Increase code coverage,
- Test faster, and
- Refactor continuously and mercilessly.

It gives your code fewer errors, reduces its debug time considerably, and provides much quicker feedback.

Going through this training will help you get a comprehensive understanding of TDD, which in turn will make you a better engineer, which in turn will enhance your value as a software developer in the industry. Many leading tech organizations like ThoughtWorks, Google, Facebook value engineers who not only write working code but code which is well crafted, that is, clean, lean, robust, scalable, maintainable, tested, and bug-free. It will help you evolve from being a software developer to a software craftsperson.

- Software Development Process Fundamentals for TDD
    - # The Two Values of Software
    - # The five major design smells
    - # Cohesion and Coupling
    - # How "Testable" is related to maintainability, Clean Code
    - # Test Automation Pyramid
    - # TDD in the context of Agile and XP

- TDD fundamentals
    - \# Anatomy of xUnit frameworks
    - \# NUnit 3
    - \# The Single-Assert Rule
    - \# The Three Laws of Test-Driven Development
    - \# The Red-Green-Refactor Cycle
    - \# The FAIR/FIRST principles
    - \# TCR - test && commit || revert
- Outlook (topics covered only briefly in the crash course)
    - \# BDD - Behavior Driven Development, Cucumber
    - \# ATDD - Acceptance Test-Driven Development
    - \# TPP - Transformation Priority Premise
    - \# Differences between MSTest, NUnit, xUnit
    - \# NUnit modularity and extensibility
    - \# Test-Doubles and Mocking
    - \# Chicago School (Stateism) vs London School (Mockism)

The course uses Microsoft .NET Core 3.0.0 and NUnit 3.12.

The course language is C#. However, the concepts and principles can be transferred to any programming language. Nelkinda also offers this course in other languages, for example, C, C++, Java, JavaScript, Kotlin, and Python.

Event Type

This is a full-day open (anyone can register) instructor-led classroom training about Test-Driven Development in C#. The number of seats is limited to ensure the best quality training for the participants. The course fee includes snacks and lunch.

At the end of the session, you will get a Certificate of Participation from the Nelkinda, signed by the trainer.

Trainer

Your trainer for this event is Christian Hujer.

Christian Hujer has 20 years of experience in TDD and 24 years of experience in professional software development. He's been training developers and teams for organizations like BNP Paribas, Elsevier, Giesecke & Devrient, Nokia, SUN Microsystems, Volkswagen, and many others.

Booking

Contact Siddhesh Nikude, +91-95-52572354, training@nelkinda.com