



Terrific .NET Testing Tips & Tricks

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Slides and source code at daninacan.com

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Overview

- ▶ Why?
- ▶ Libraries
- ▶ xUnit test execution order and fixtures
- ▶ Coding demo
 - ▶ Testing philosophy (naming, test structure, and more)
 - ▶ Setup tips
 - ▶ Assertion tips
 - ▶ Testing data tips

Why?

“Always code as if the guy who ends up maintaining your code will be a violent psychopath who knows where you live.” - John F. Woods

- ▶ Lots of opinions online around testing
- ▶ Need to know what to look for to search for something
- ▶ Learned experience
- ▶ New to testing can be a short primer with some patterns
- ▶ Experienced testers can pick up at least one thing

Libraries

- ▶ xUnit
- ▶ NSubstitute
- ▶ AutoFixture
- ▶ RichardSzalay.MockHttp
- ▶ FluentAssertions
 - ▶ `actualValue.Should().BeEquivalentTo(expectedValue)`
 - ▶ <https://fluentassertions.com/objectgraphs/>

Parallelism in xUnit

- ▶ Test collections
- ▶ By default, each class is a test collection
 - ▶ Tests within a collection run in sequence
 - ▶ Collections run parallel with one another
- ▶ Shared state
 - ▶ `IClassFixture<T>`
 - ▶ `[CollectionDefinition] + ICollectionFixture<T> + [Collection]`
- ▶ <https://xunit.net/docs/shared-context>
- ▶ <https://xunit.net/docs/running-tests-in-parallel>




Coding demo

Slides and source code at daninacan.com

Recap

- ▶ xUnit parallelism
- ▶ xUnit, Nsubstitute, Autofixture, FluentAssertions, RichardSzalay.MockHttp
- ▶ Testing philosophy + patterns
- ▶ CombinatorialData
- ▶ MemberData, TheoryData, ClassData
- ▶ BeEquivalentTo + extension method

Thank you!

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