

Visual Studio **LIVE!** EXPERT SOLUTIONS FOR ENTERPRISE DEVELOPERS | **Las Vegas**

Testability in .NET

Jason Bock
Developer Advocate
Rocket Mortgage

Level: Introductory to Intermediate

#VSLIVE

Your Code Powers the World.
Our Training Powers You.

Personal Info

- <http://www.jasonbock.net>
- <https://mstdn.social/@jasonbock>
- <https://www.github.com/jasonbock>
- <https://youtube.com/jasonbock>
- jason.r.bock@outlook.com



Downloads

<https://github.com/JasonBock/TestabilityInDotNet>

<https://github.com/JasonBock/Presentations>



Overview

- Motivation
- Benefits
- Techniques
- Conclusion

Remember...

<https://github.com/JasonBock/TestabilityInDotNet>

<https://github.com/JasonBock/Presentations/>

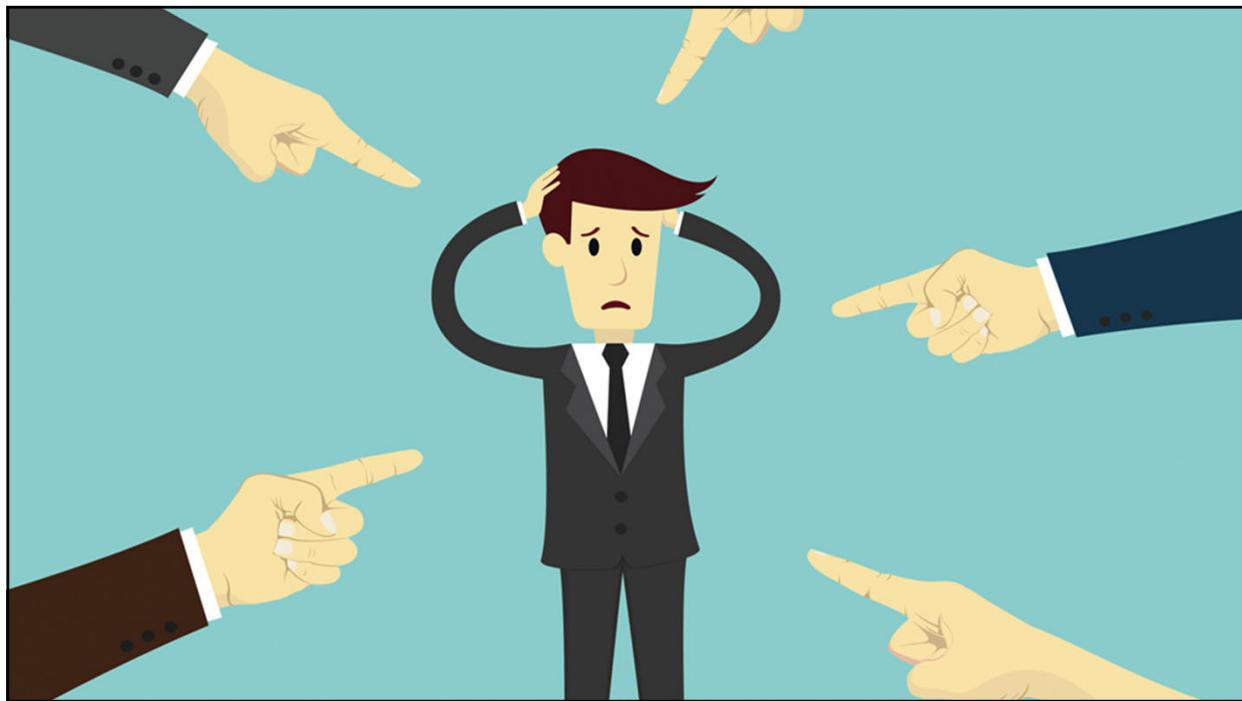


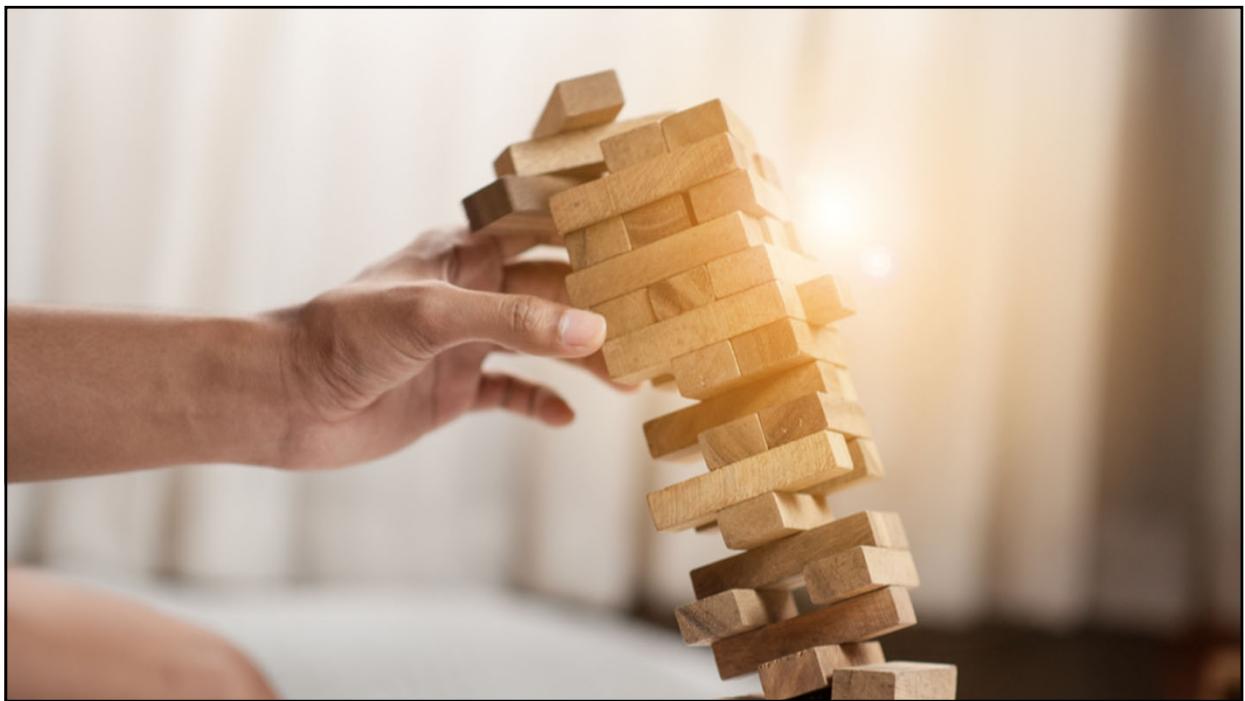
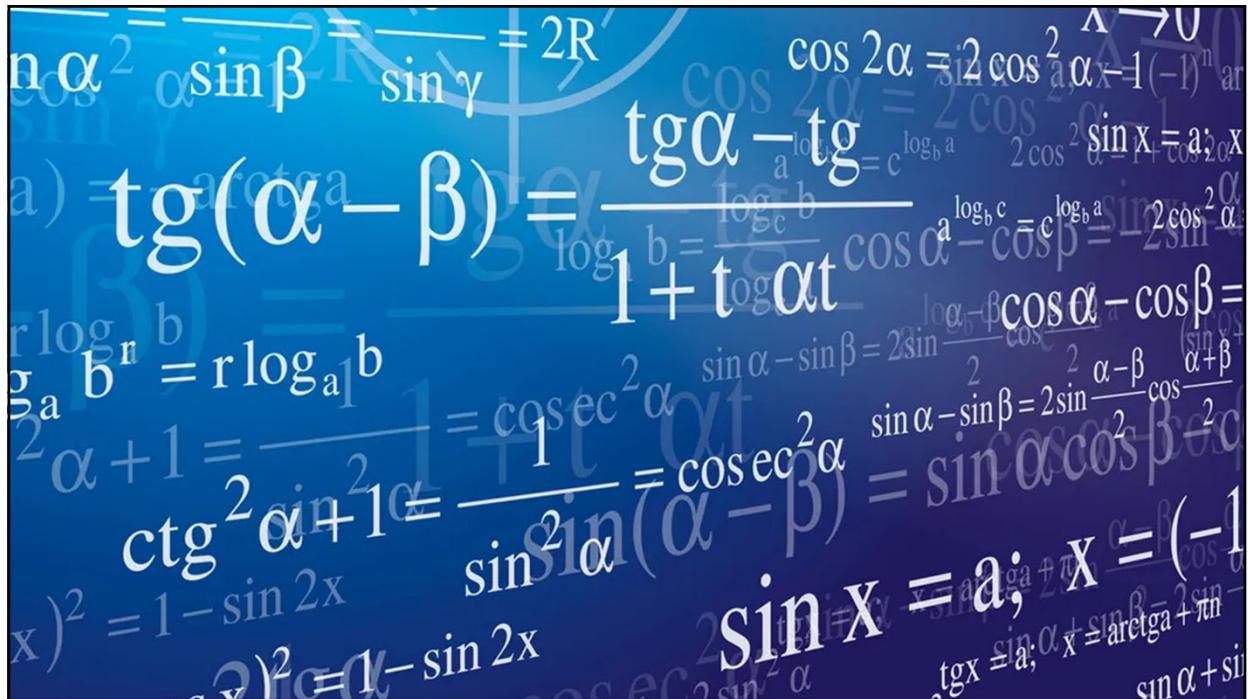
Testability in .NET

MOTIVATION



```
public static class Adding
{
    public static int Add(int x, int y)
    {
        return x + y;
    }
}
```





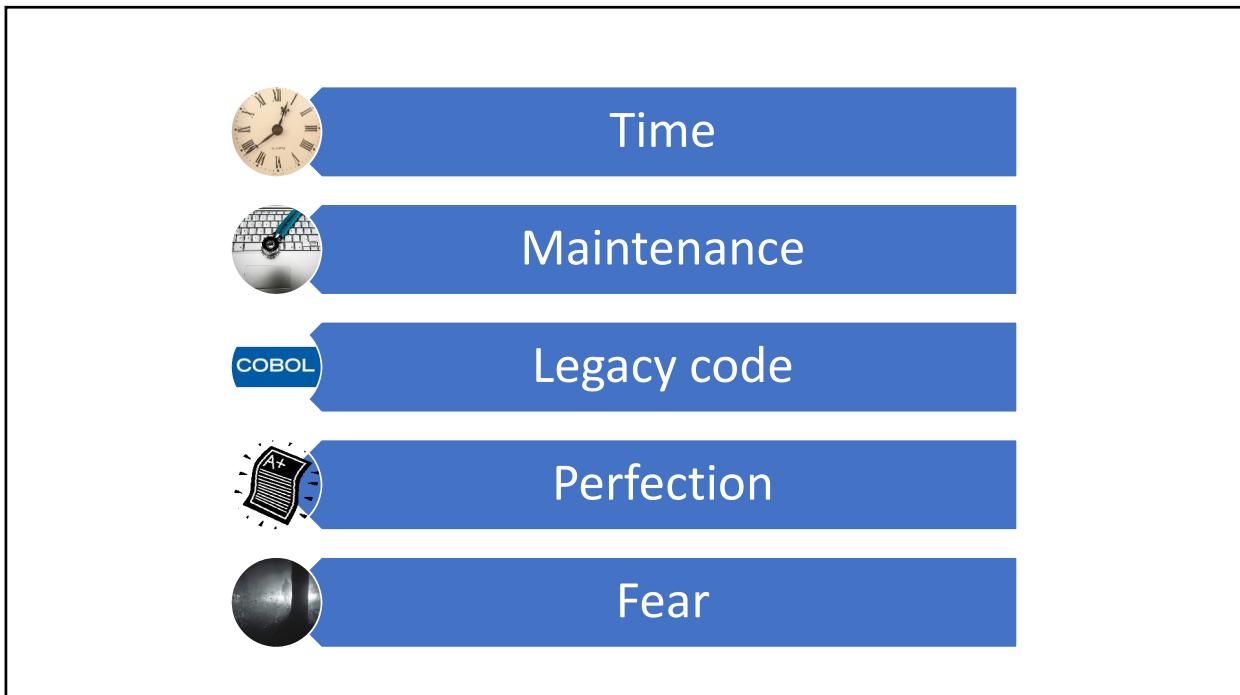
Visual Studio Live! Las Vegas 2023

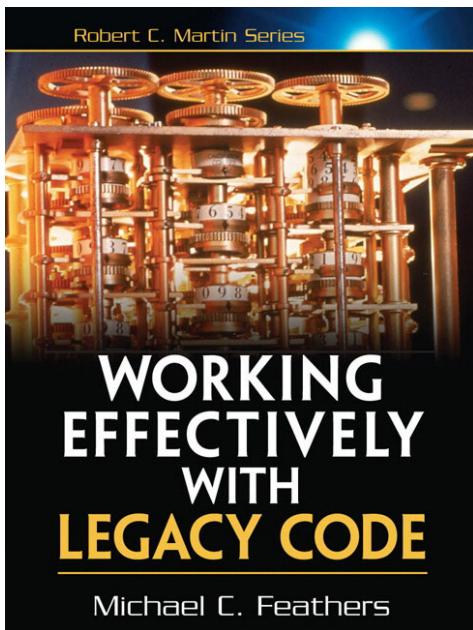
```
year = ORIGINYEAR; /* = 1980
*/
while (days > 365)
{
    if (IsLeapYear(year))
    {
        if (days > 366)
        {
            days -= 366;
            year += 1;
        }
    }
    else
    {
        days -= 365;
        year += 1;
    }
}
```



"A bug in the internal clock driver related to the way the device handles a leap year affected Zune users," said the company in a statement. "**That being the case, the issue should be resolved over the next 24 hours as the time change moves to January 1, 2009.**"







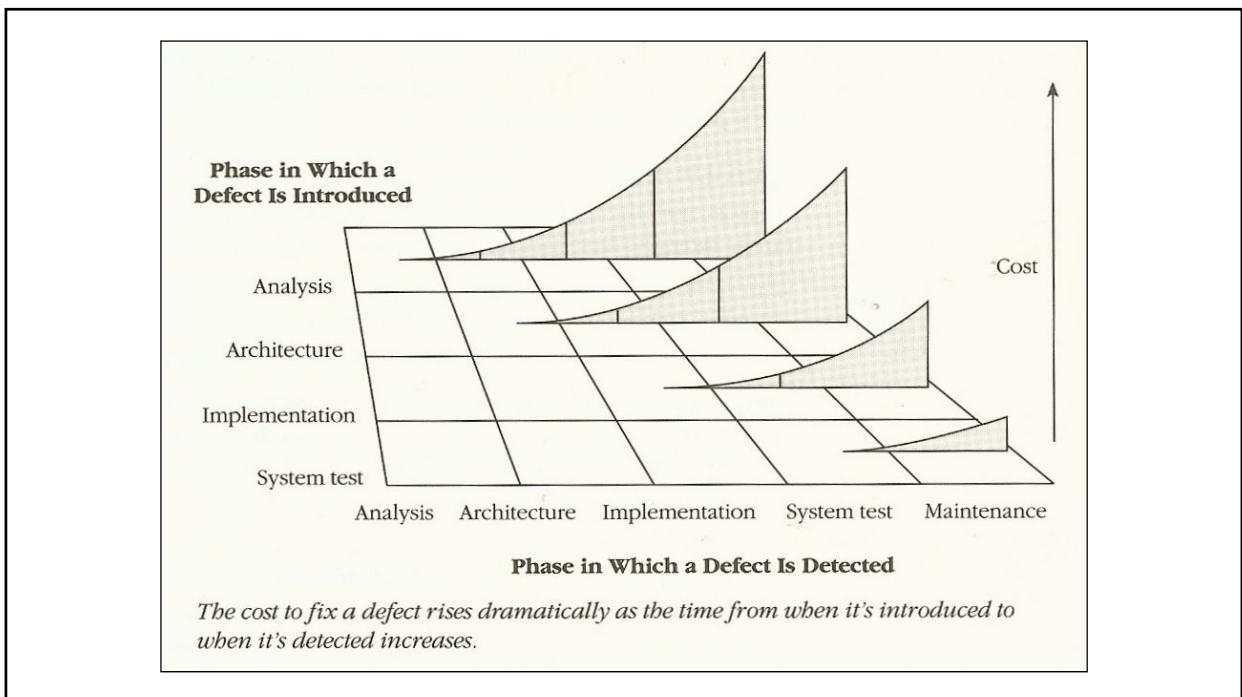
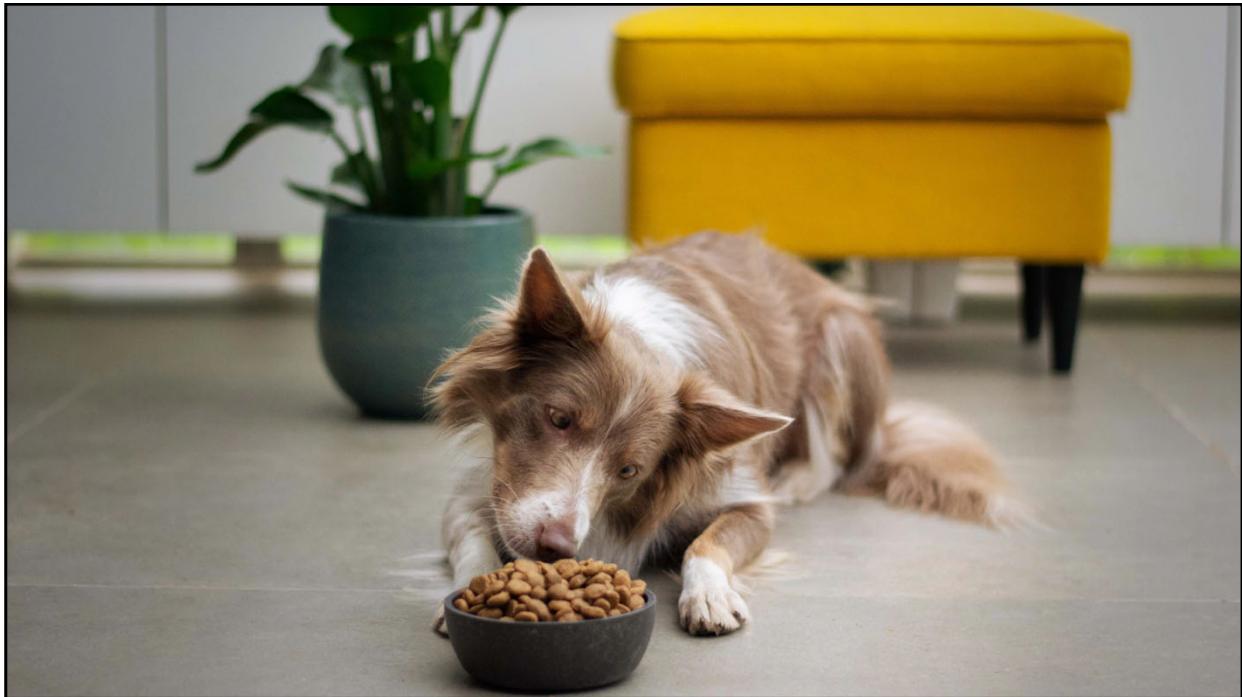
“Legacy code is
simply code without
tests.” —xvi

Testability in .NET

BENEFITS



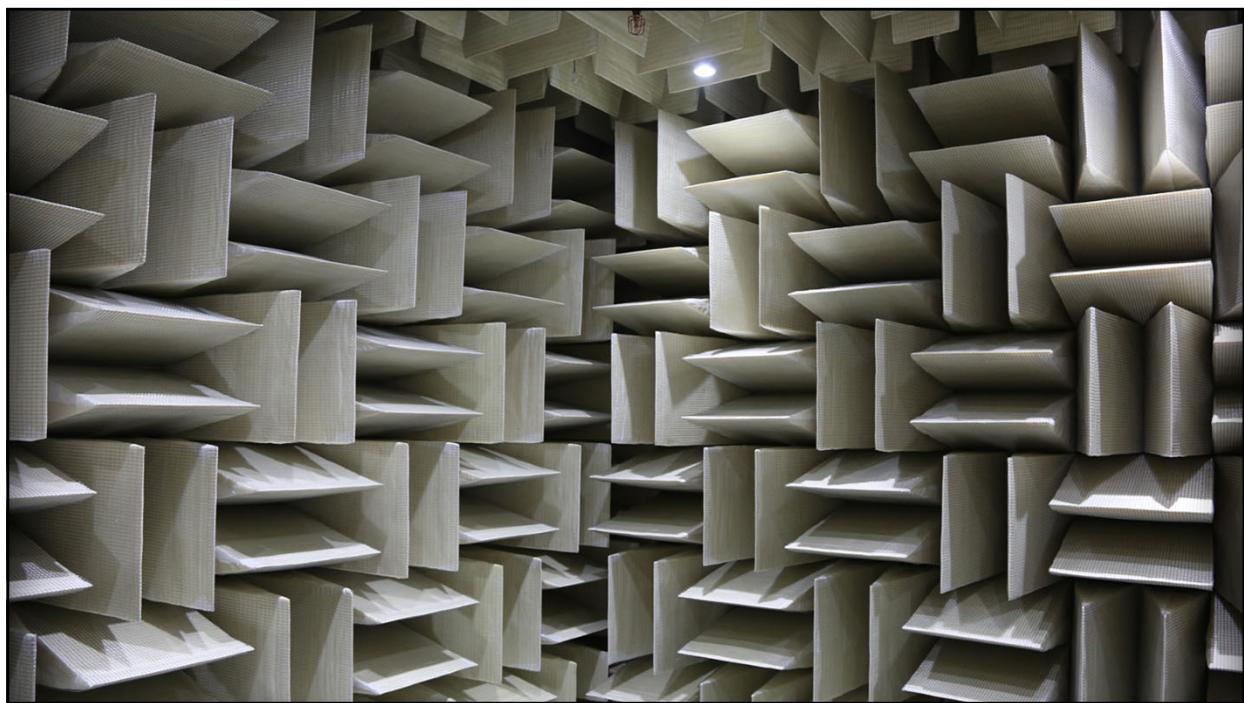
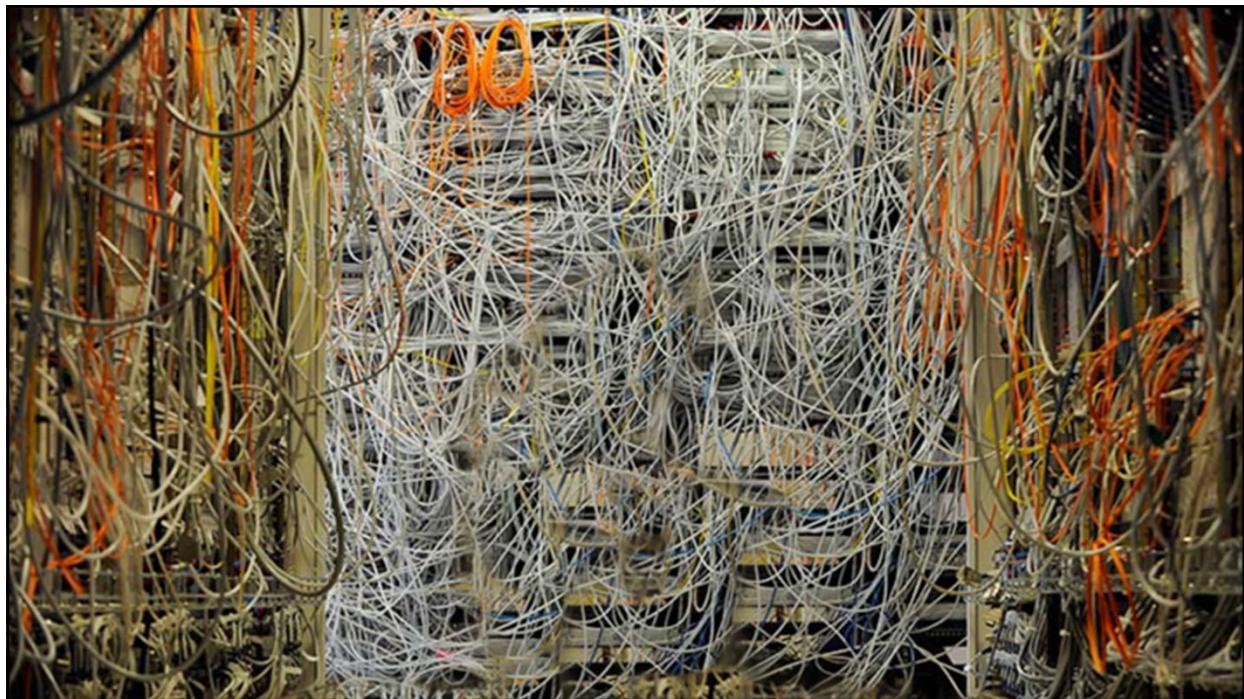
Visual Studio Live! Las Vegas 2023

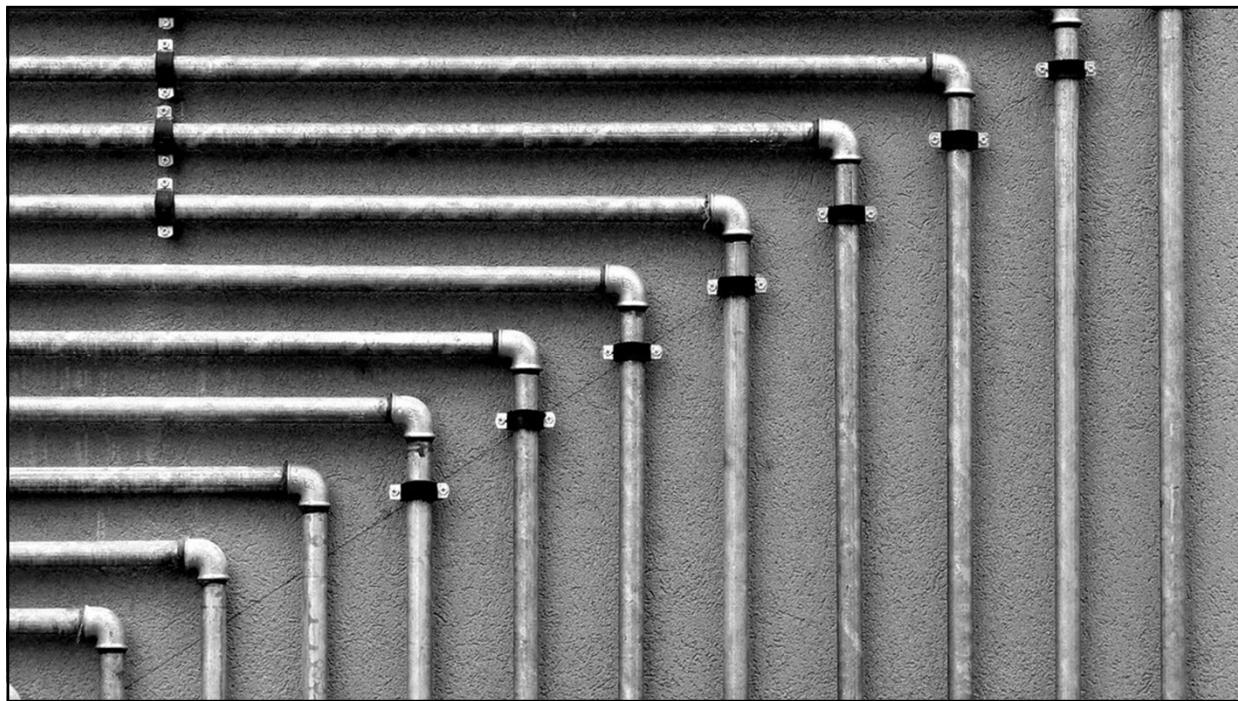
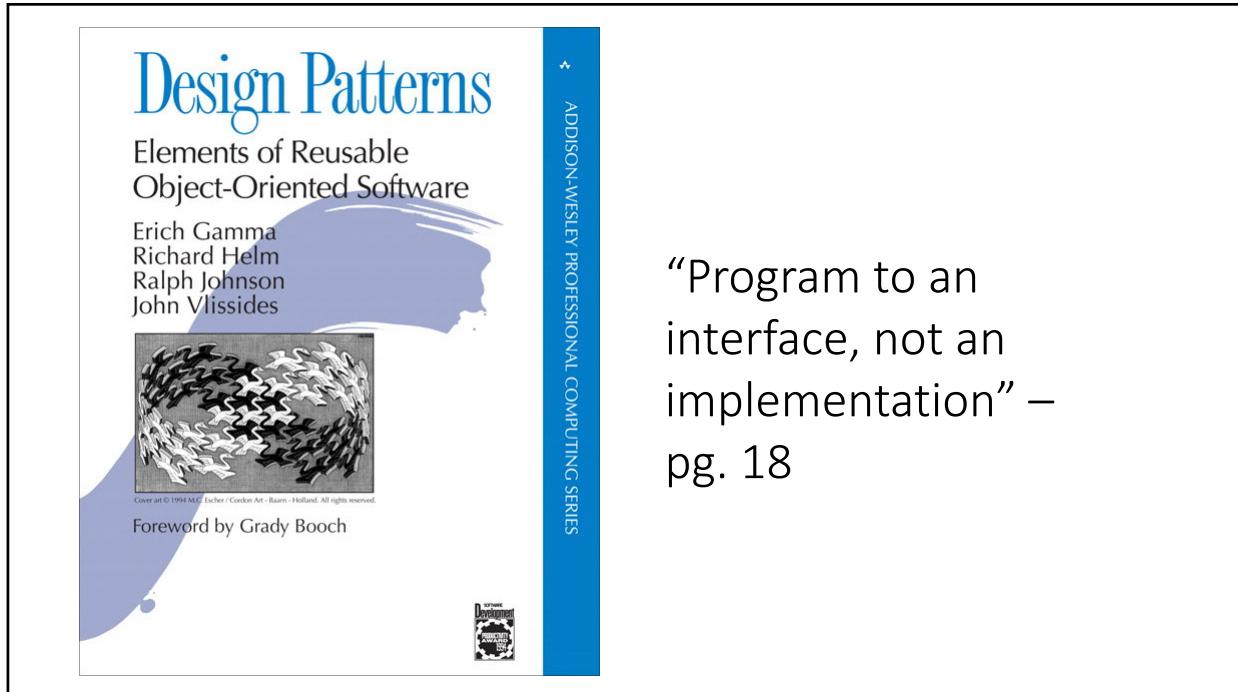


Visual Studio Live! Las Vegas 2023

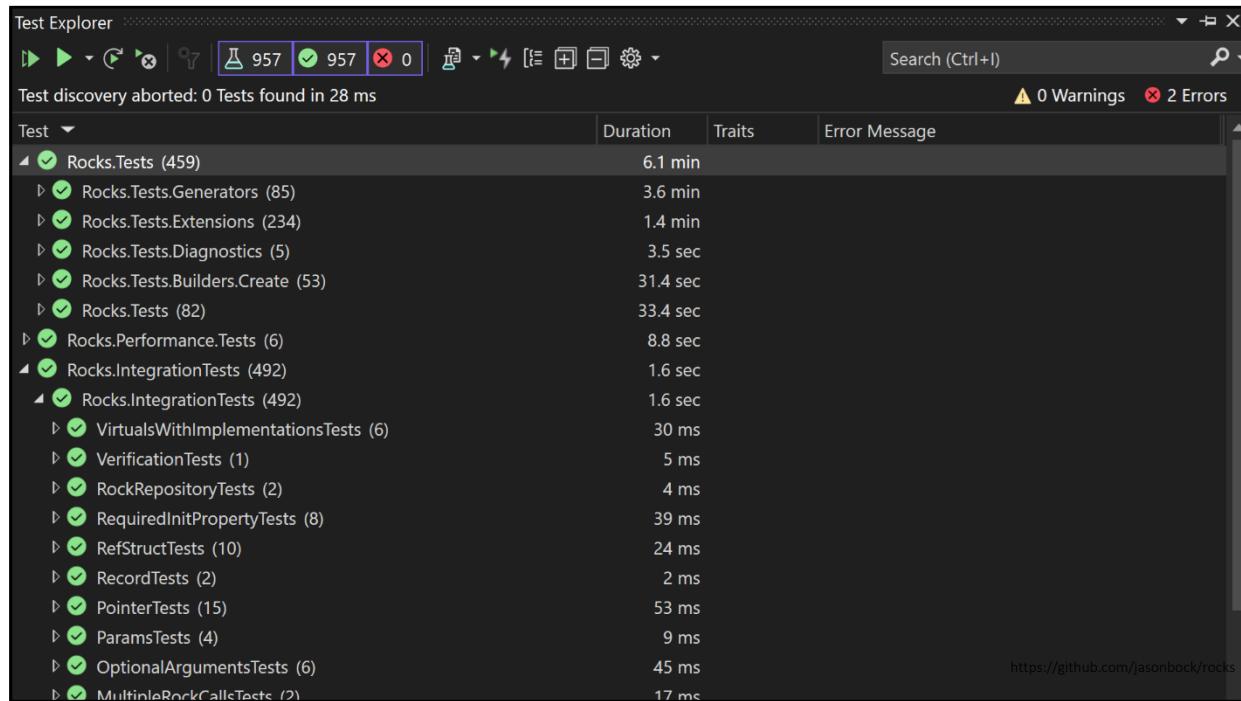
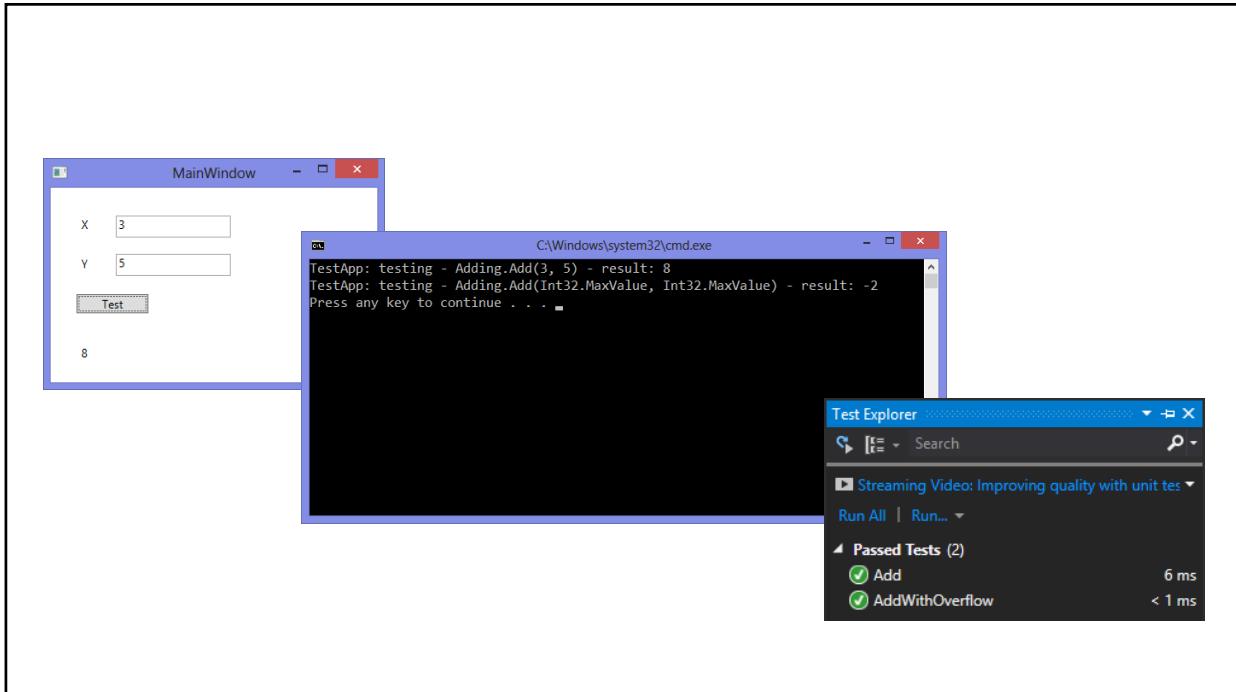


Visual Studio Live! Las Vegas 2023

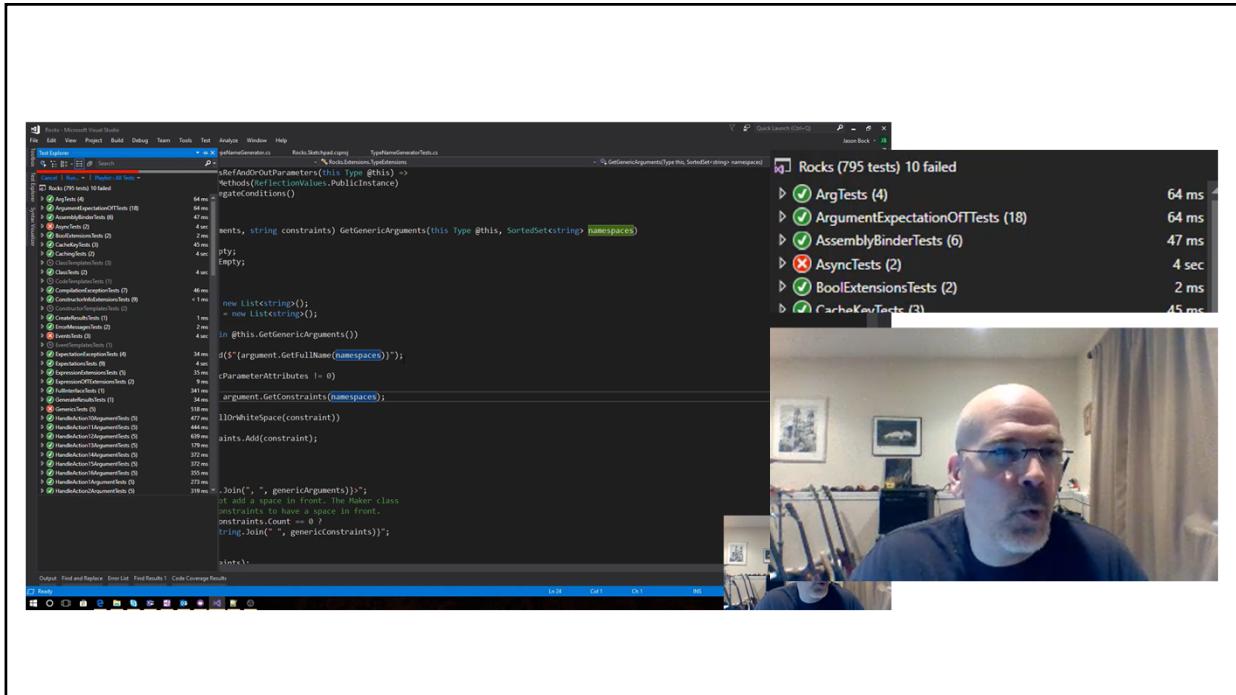




Visual Studio Live! Las Vegas 2023



Visual Studio Live! Las Vegas 2023



Testability in .NET

TECHNIQUES



TDD,
BDD,
*DD, etc.

Arrange
Act
Assert



MSTest



NUnit

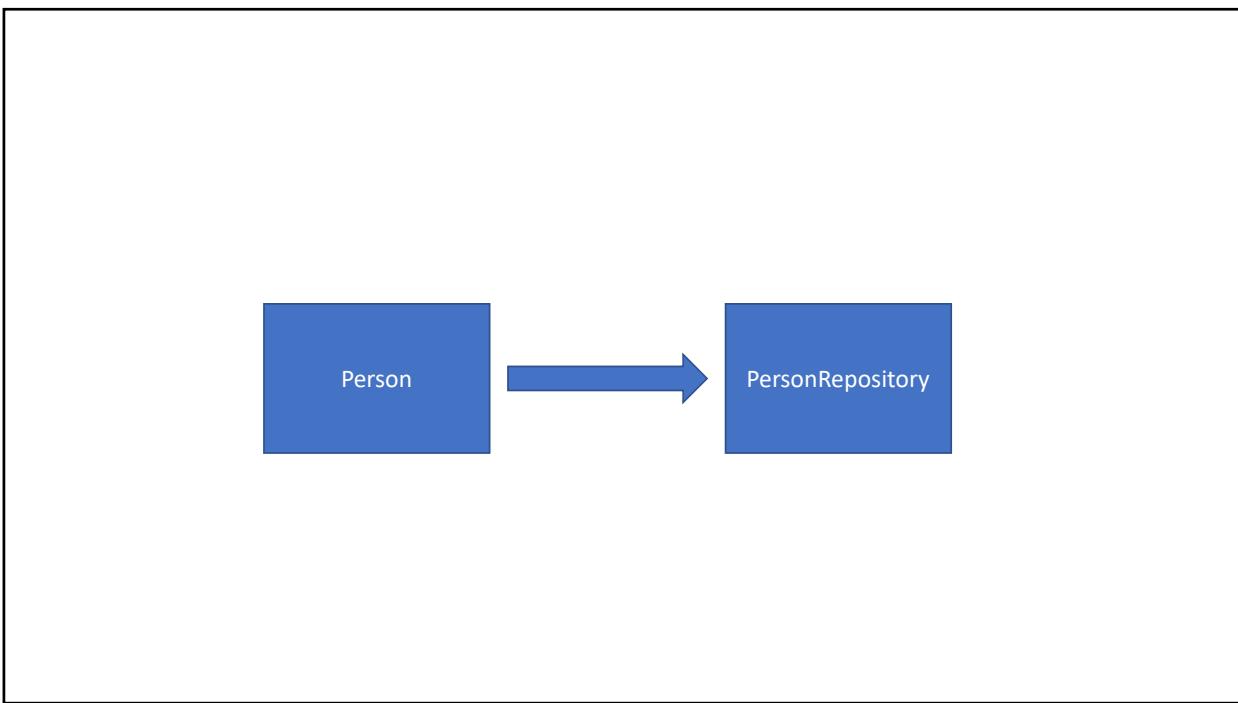


xUnit

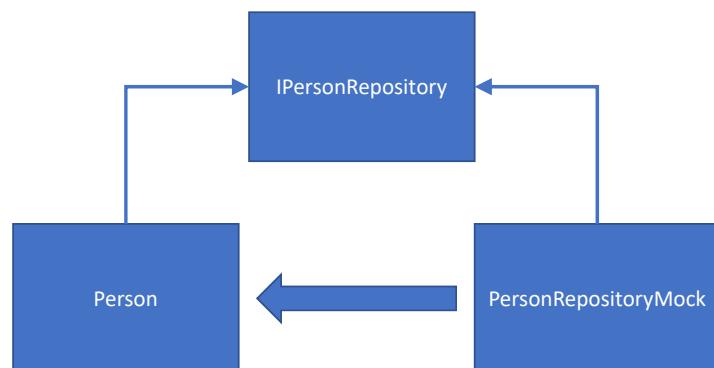
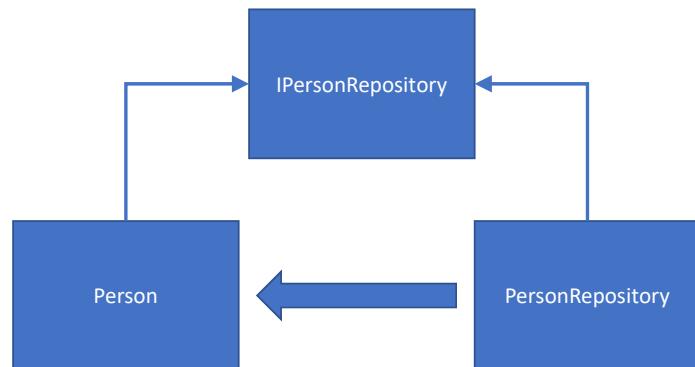


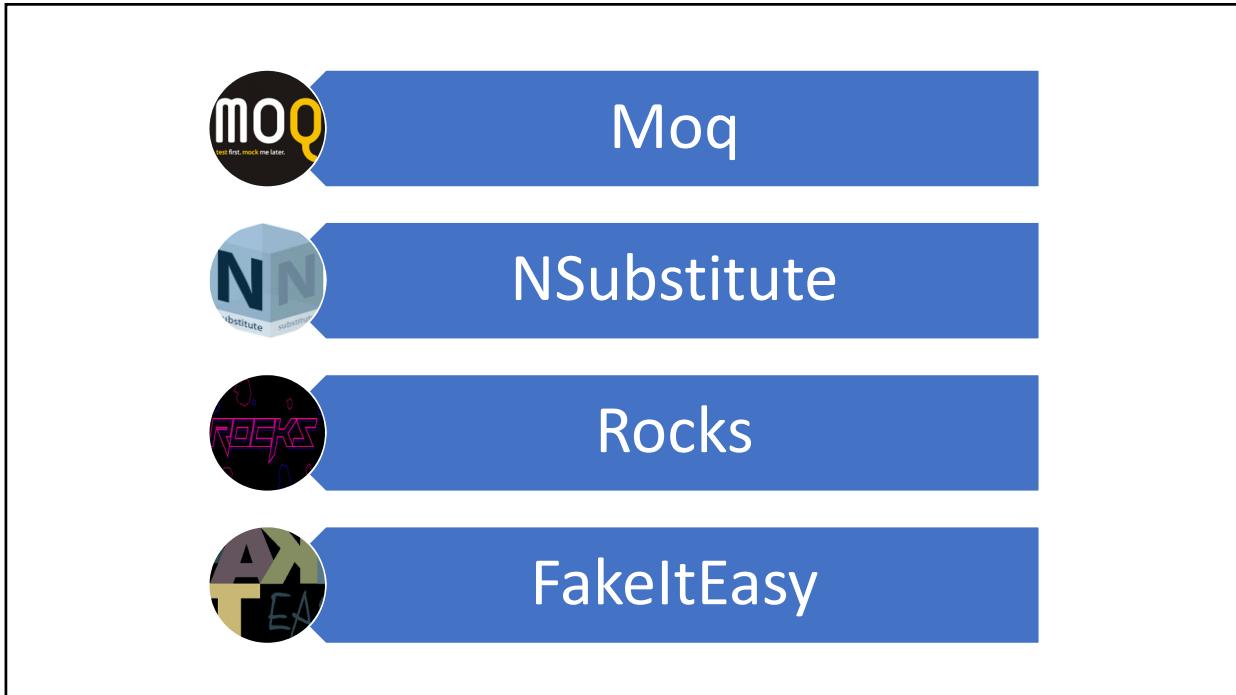
Fixie

Visual Studio Live! Las Vegas 2023



Visual Studio Live! Las Vegas 2023







Testability in .NET

DEMO: WRITING TESTS IN .NET



Testability in .NET

CONCLUSION



Visual Studio Live! Las Vegas 2023



Visual Studio **LIVE!**
EXPERT SOLUTIONS FOR ENTERPRISE DEVELOPERS | **Las Vegas**

Testability in .NET

Jason Bock
Developer Advocate
Rocket Mortgage

Level: Introductory to Intermediate

#VSLIVE

Remember...

- <https://github.com/JasonBock/TestabilityInDotNet>
- <https://github.com/JasonBock/Presentations>
- References in the notes on this slide

Your Code Powers the World.
Our Training Powers You.