

Конвейер выступления

Введение

Мотивация

Кейсы

CI/CD

Демо

Итоги



Практики CI/CD и их место в современной IT культуре

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Почему CI/CD?

2



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Демо

Итоги



История одной команды...

История одной команды...

A large orange circle containing the text "Waterfall".

Waterfall

A large orange circle containing the text "Agile".

Agile

A large orange circle containing the text "DevOps".

DevOps

A small orange circle containing the number "5".

5

Tech project Specification Develop

QA

Bugs

Release

6

Tech project Specification Develop

QA

Bugs

Release



Мы будем внедрять CI/CD!

Tech project Specification Develop

QA

Bugs

Release



Мы будем внедрять CI/CD!

Здорово! А с какой целью?



6

Tech project Specification Develop

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Bugs

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Мы будем внедрять CI/CD!
Чтобы запускать на нём тесты

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Какие тесты?



Tech project Specification Develop

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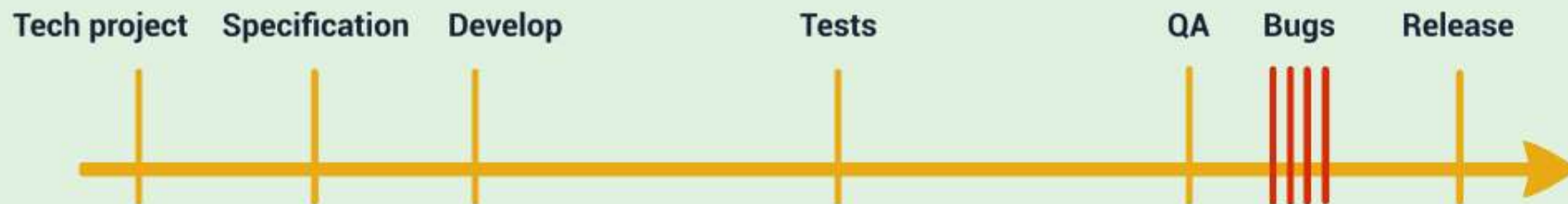


Мы будем внедрять CI/CD!
Чтобы запускать на нём тесты
Которые хочет заказчик по ТЗ

Здорово! А с какой целью?
Какие тесты?



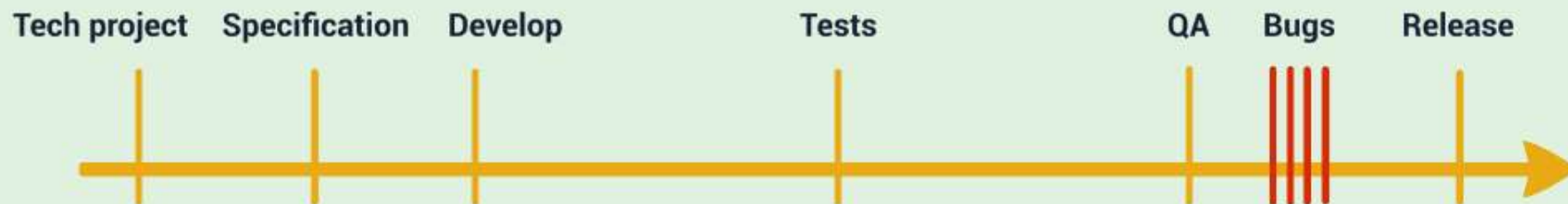
6



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Здорово! А с какой целью?
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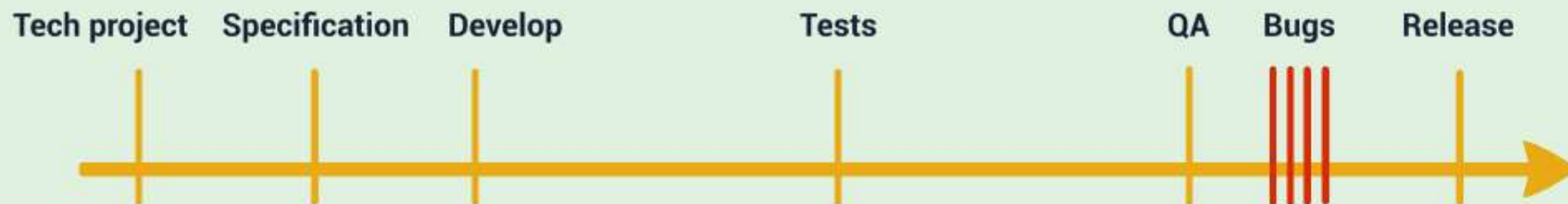




Мы будем внедрять CI/CD!
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Здорово! А с какой целью?
Какие тесты?
А будет ли от них польза?





Мы будем внедрять CI/CD!
Чтобы запускать на нём тесты
Которые хочет заказчик по ТЗ
Думаю, что нет, но по ТЗ нужно сделать!

Здорово! А с какой целью?
Какие тесты?
А будет ли от них польза?



Итого

7

Итого

- Зачем я должен писать бесполезные тесты?
- ... и тратить время на поддержку инфраструктуры?

Итого

- Зачем я должен писать бесполезные письма?
- ... и тратить время на поддержку бесполезных связей?



Итого

- Зачем я должен писать бесполезные тесты?
- ... и тратить время на поддержку бесполезных тестов?
- Тесты ломаются
- ... билды не проходят
- ... коллеги раздражены.



Итого

- Зачем я должен писать бесполезные тесты?
- ... и тратить время на поддержку тестов?
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- ... билды не проходят
- ... коллеги раздражены.



Итого

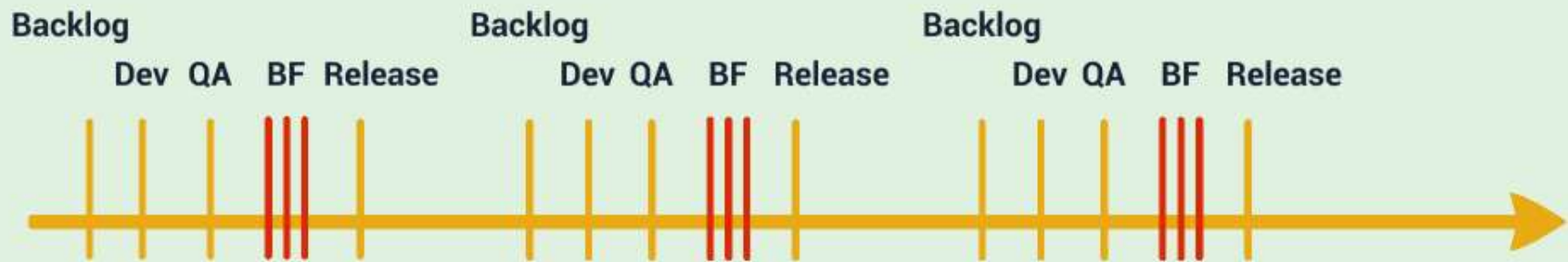
- Зачем я должен писать бесполезные тесты?
- ... и тратить время на поддержку тестов?
- Тесты ломаются
- ... билды не проходят
- ... коллеги раздражены.
- Сроки не соблюдаются;
- Мотивация падает.



Итого

- Зачем я должен писать бесполезные письма?
- ... и тратить время на поддержку чужих идей?
- Тесты ломаются
- ... билды не проходят
- ... коллеги раздражены
- Сроки не соблюдаются
- Мотивация падает







Регулярные релизы



Регулярные релизы

Четкие требования отсутствуют и меняются от спринта к спринту



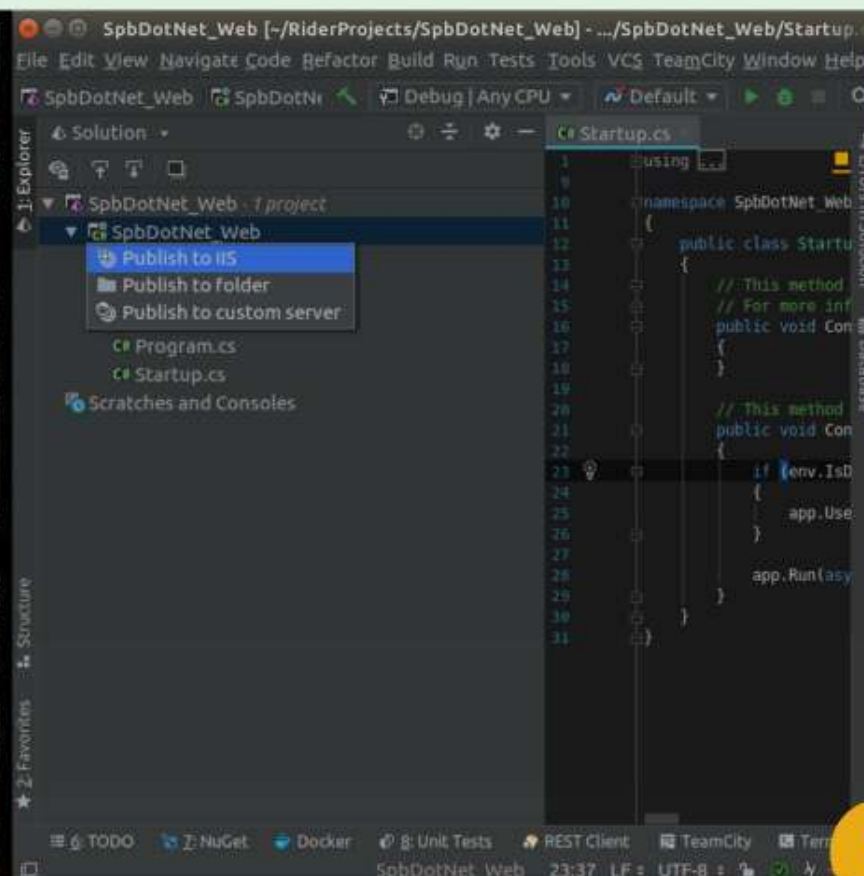
Регулярные релизы

Четкие требования отсутствуют и меняются от спринта к спринту

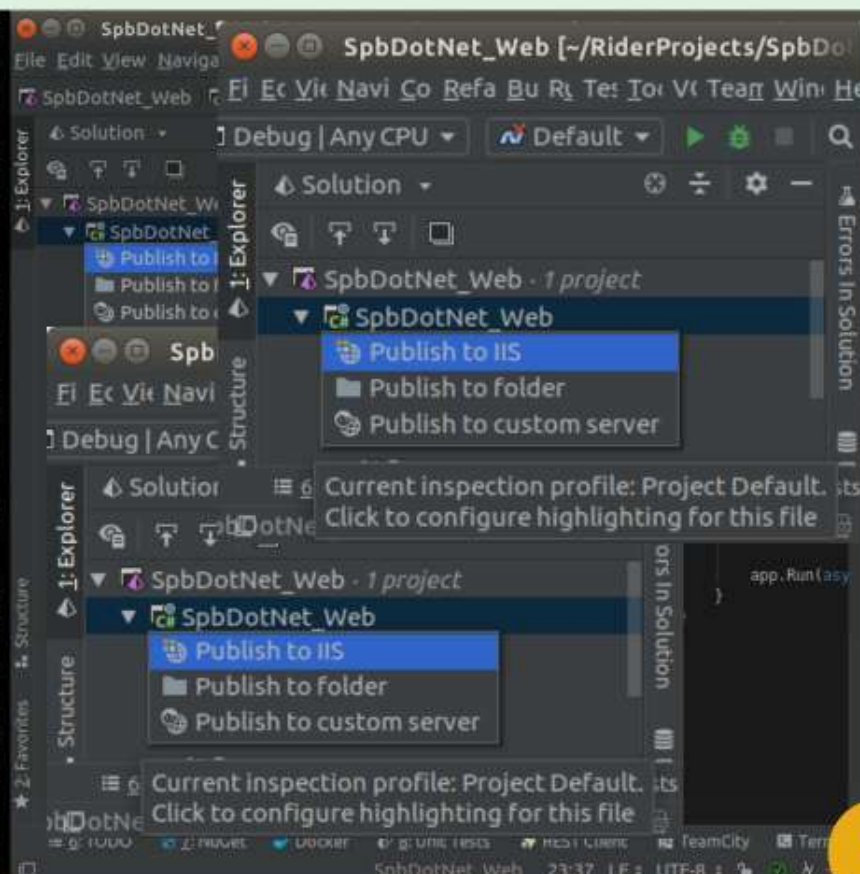
Обратная связь с QA, менеджеров и пользователем (!!!)

Коротко о релизах

Коротко о релизах



Коротко о релизах



Коротко о релизах



Итого

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Итого

- Постоянное взаимодействия с QA
- ... необходимо переключать контекст
(**корректные слияния**)

Итого

- Постоянное взаимодействия с QA
- ... необходимо переключать контекст
(корректные слияния)
- Необходимо регресс тестирование
- ... иначе теряем доверие QA и пользователя
(тесты)

Итого

- Постоянное взаимодействия с QA
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- Регулярная подготовка новой версии продукта
- ... не должна отнимать много времени
(автоматические развертывания)

Итого

- Постоянное взаимодействия с QA
- ... необходимо переключать контекст
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CI/CD must have



CI/CD must have



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Итого

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Итого



12

Итого



Итого



Итого



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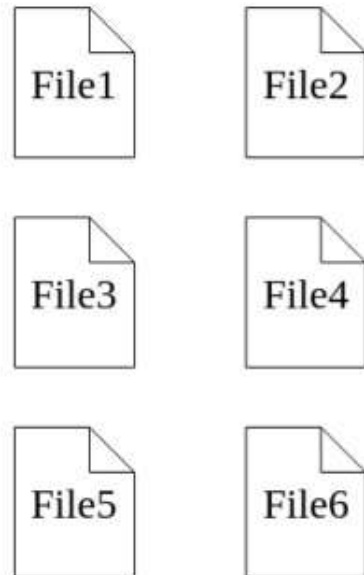


Real-world кейсы

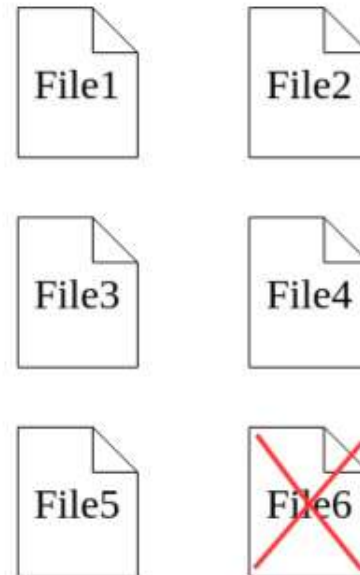
13

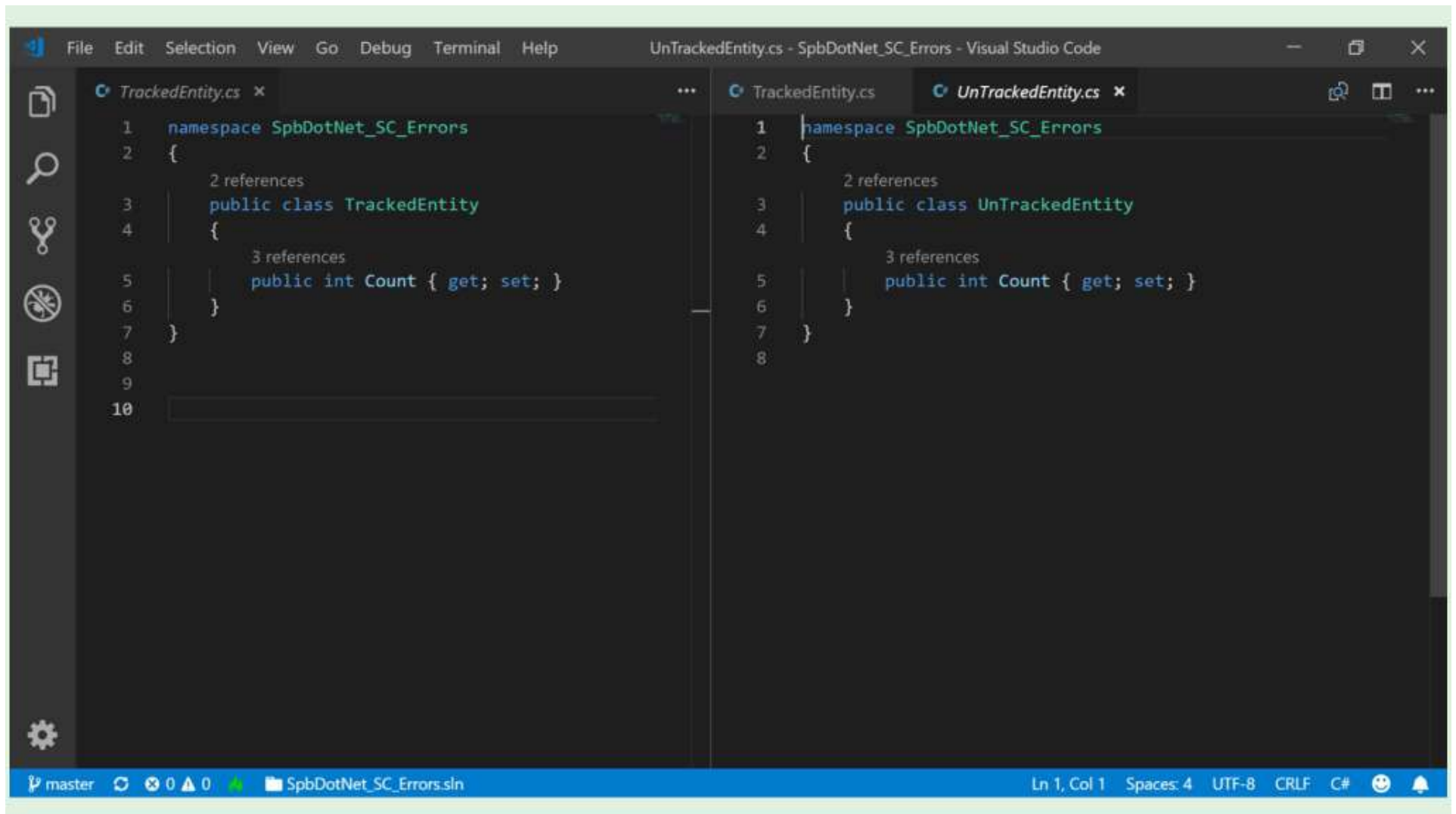
Tracking файлов

Local



Remote





Worker.cs

```
1 namespace SpbDotNet_SC_Errors
2 {
3     1 reference
4     public static class Worker
5     {
6         1 reference
7         public static int GetCountsSum(
8             TrackedEntity a,
9             UnTrackedEntity b)
10        {
11            return a.Count + b.Count;
12        }
13    }
14 }
```

WorkerTests.cs

```
1 using System;
2 using SpbDotNet_SC_Errors;
3 using Xunit;
4
5 namespace SpbDotNet_SC_Errors_Tests
6 {
7     0 references | Run All Tests | Debug All Tests
8     public class WorkerTests
9     {
10         [Fact]
11         0 references | Run Test | Debug Test
12         public void GetCountSum_Test()
13         {
14             var a = new TrackedEntity { Count = 5 };
15             var b = new UnTrackedEntity { Count = 15 };
16
17             var result = Worker.GetCountsSum(a, b);
18             Assert.True(result == a.Count + b.Count);
19         }
20     }
21 }
```

master* 0 0 SpbDotNet_SC_Errors.sln Ln 6, Col 13 Spaces: 4 UTF-8 with BOM CRLF C#

The screenshot shows the Visual Studio Code interface with two files open: `Worker.cs` and `WorkerTests.cs`. The `WorkerTests.cs` file contains the following code:

```
1 using System;
2 using SpbDotNet_SC_Errors;
```

The `TERMINAL` tab is active, showing the output of a PowerShell session. The command executed is `dotnet test` in the directory `C:\Users\mi\Documents\GitHub\SpbDotNet_SC_Errors\SpbDotNet_SC_Errors_Tests\bin\Debug\netcoreapp2.1\SpbDotNet_SC_Errors_Tests.dll`. The output indicates a successful build and test execution:

```
SpbDotNet_SC_Errors_Tests -> C:\Users\mi\Documents\GitHub\SpbDotNet_SC_Errors\SpbDotNet_SC_Errors_Tests\bin\Debug\netcoreapp2.1\SpbDotNet_SC_Errors_Tests.dll

Сборка успешно завершена.
Предупреждений: 0
Ошибок: 0

Прошло времени 00:00:01.84
PS C:\Users\mi\Documents\GitHub\SpbDotNet_SC_Errors\SpbDotNet_SC_Errors_Tests> dotnet test
Сборка начата, подождите...
Сборка выполнена.

Тестовый запуск C:\Users\mi\Documents\GitHub\SpbDotNet_SC_Errors\SpbDotNet_SC_Errors_Tests\bin\Debug\netcoreapp2.1\SpbDotNet_SC_Errors_Tests.dll(.NETCoreApp,Version=v2.1)
Программа Microsoft (R) Test Execution Command Line Tool версии 15.9.0
(с) Корпорация Майкрософт (Microsoft Corporation). Все права защищены.

Запуск выполнения тестов; подождите...

Всего тестов: 1. Пройдено: 1. Не пройдено: 0. Пропущено: 0.
Тестовый запуск выполнен.
Время выполнения теста: 1,0637 Секунды
PS C:\Users\mi\Documents\GitHub\SpbDotNet_SC_Errors\SpbDotNet_SC_Errors_Tests>
```

The status bar at the bottom shows the file `SpbDotNet_SC_Errors.sln` is open, and the current position is `Ln 6, Col 13`. The status bar also indicates `Spaces: 4`, `UTF-8 with BOM`, `CRLF`, and `C#`.



ddydeveloper / SpbDotNet_SC_Errors



build failing

[Current](#) [Branches](#) [Build History](#) [Pull Requests](#) > [Build #8](#)[More options](#)**✖ master make static class**[Commit 487d81e](#)[Compare 1a241e9...487d81e](#)[Branch master](#)

Daniil

✖ #8 failed


Ran for 1 min 26 sec

9 days ago

[Restart build](#) `</> Mono: none C#`

```
486 Microsoft.AspNetCore.All 2.1.6 [/usr/share/dotnet/shared/Microsoft.AspNetCore.All]
487 Microsoft.AspNetCore.App 2.1.6 [/usr/share/dotnet/shared/Microsoft.AspNetCore.App]
488 Microsoft.NETCore.App 2.1.6 [/usr/share/dotnet/shared/Microsoft.NETCore.App]
489
490 To install additional .NET Core runtimes or SDKs:
491   https://aka.ms/dotnet-download
492
▶ 493 $ dotnet restore before_install 3.91s
533 $ dotnet build 2.66s
534 Copyright (C) Microsoft Corporation. All rights reserved.
535
536 pleted in 49.92 ms for
/home/travis/build/ddydeveloper/SpbDotNet_SC_Errors/SpbDotNet_SC_Errors_Tests/SpbDotNet_SC_Errors_Tests.csproj.
537 Restore completed in 49.92 ms for
/home/travis/build/ddydeveloper/SpbDotNet_SC_Errors/SpbDotNet_SC_Errors/SpbDotNet_SC_Errors.csproj.
538 Worker.cs(5,57): error CS0246: The type or namespace name 'UnTrackedEntity' could not be found (are you missing a using
directive or an assembly reference?)
[/home/travis/build/ddydeveloper/SpbDotNet_SC_Errors/SpbDotNet_SC_Errors/SpbDotNet_SC_Errors.csproj]
539
540 Build FAILED.
541
542 Worker.cs(5,57): error CS0246: The type or namespace name 'UnTrackedEntity' could not be found (are you missing a using
directive or an assembly reference?)
[/home/travis/build/ddydeveloper/SpbDotNet_SC_Errors/SpbDotNet_SC_Errors/SpbDotNet_SC_Errors.csproj]
543 0 Warning(s)
544 1 Error(s)
545
```

Top ▲



Search or jump to...

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[dddydeveloper](#) / [SpbDotNet_SC_Errors](#)

Unwatch

1

Star

0

Fork

0

Code

Issues 0

Pull requests 0

Projects 0

Wiki

Insights

Settings

Branch: master ▾ [SpbDotNet_SC_Errors](#) / [SpbDotNet_SC_Errors](#) /

[Create new file](#) [Upload files](#) [Find file](#) [History](#)

[dddydeveloper](#) make static class Latest commit 487d81e 9 days ago

..

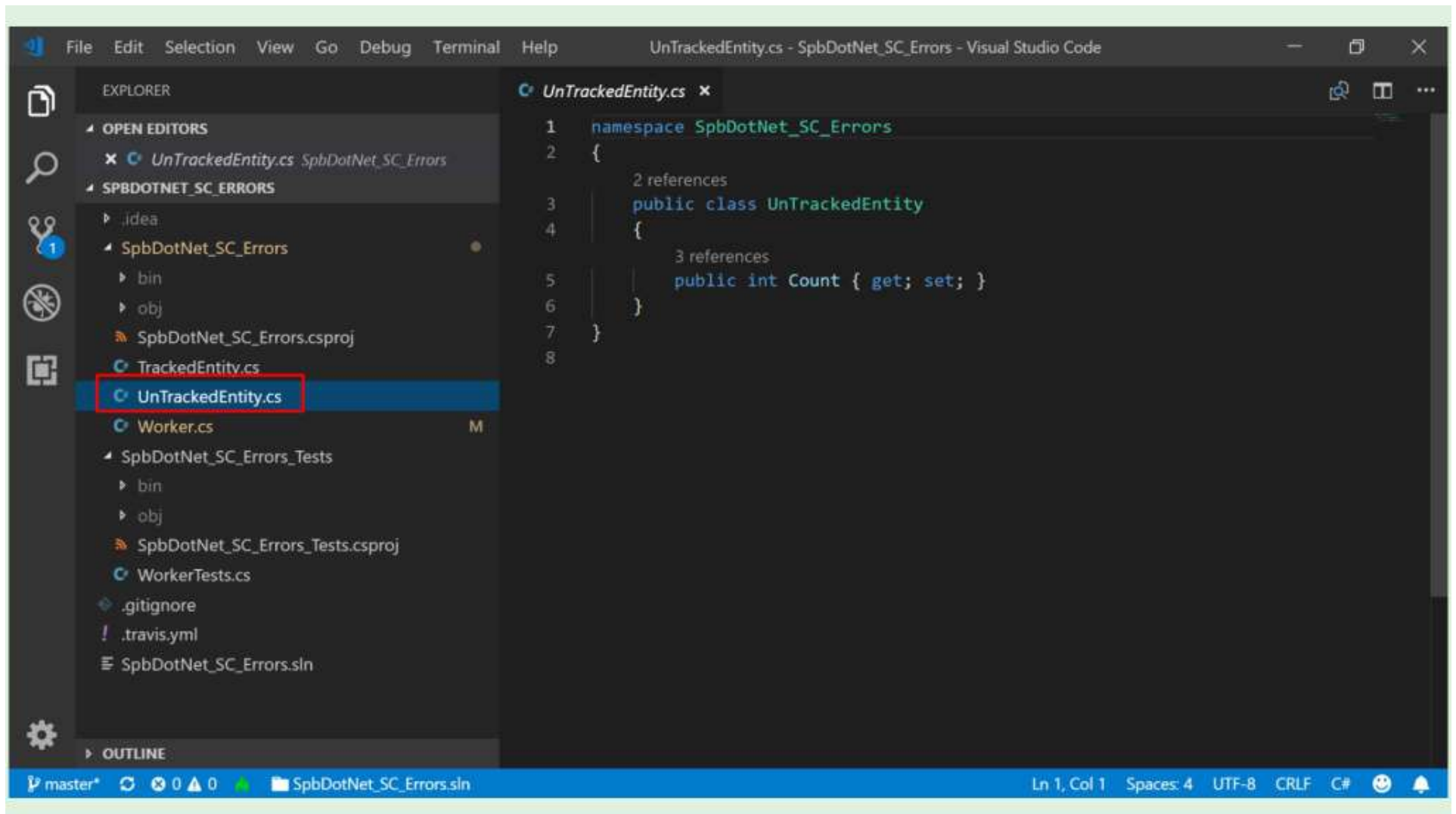
[SpbDotNet_SC_Errors.csproj](#) Init repo a month ago


[TrackedEntity.cs](#) Make static 9 days ago

[Worker.cs](#) make static class 9 days ago

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ddydeveloper / SpbDotNet_SC_Errors

Unwatch 1

Star 0

Fork 0

<> Code

Issues 0

Pull requests 0

Projects 0

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Insights

Settings

Branch: bugfix/untrack... ▾

SpbDotNet_SC_Errors / SpbDotNet_SC_Errors /

Create new file

Upload files


Find file

History

This branch is 3 commits ahead of master.

Pull request

Compare

 ddydeveloper Merge branch 'master' into bugfix/untracked

Latest commit 8332b97 9 days ago

..

SpbDotNet_SC_Errors.csproj

Init repo

a month ago

TrackedEntity.cs

Make static

9 days ago

UnTrackedEntity.cs

add untracked file


21 days ago

Worker.cs

make static class

9 days ago

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ps://github.com/ddydeveloper/SpbDotNet_SC_Errors/tree/bugfix/untracked

ddydeveloper / SpbDotNet_SC_Errors 

build failing

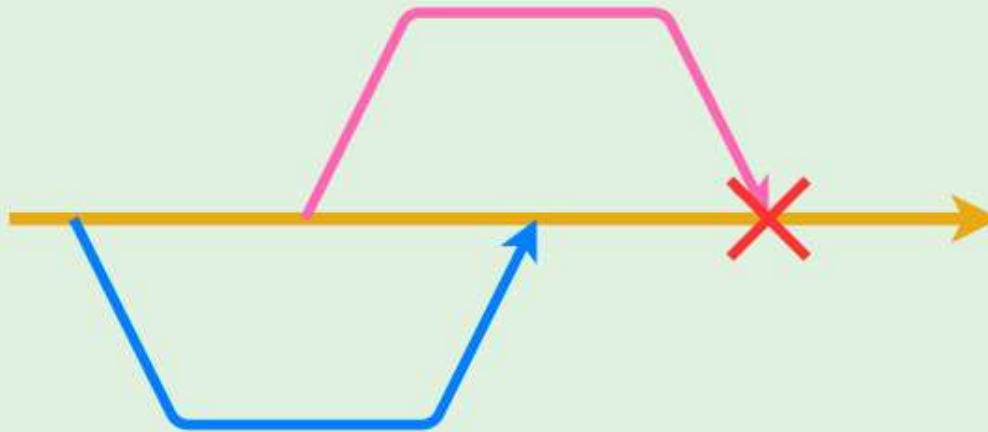
[Current](#) [Branches](#) [Build History](#) [Pull Requests](#) > [Build #9](#)[More options](#) ✓ **bugfix/untracked** Merge branch 'master' into bugfix/untracked

- #9 passed

[Restart build](#) Commit 8332b97 [↗](#) Compare 923e093...8332b97 [↗](#) Branch bugfix/untracked [↗](#) Ran for 1 min 33 sec 9 days ago Daniil </> Mono: none C#

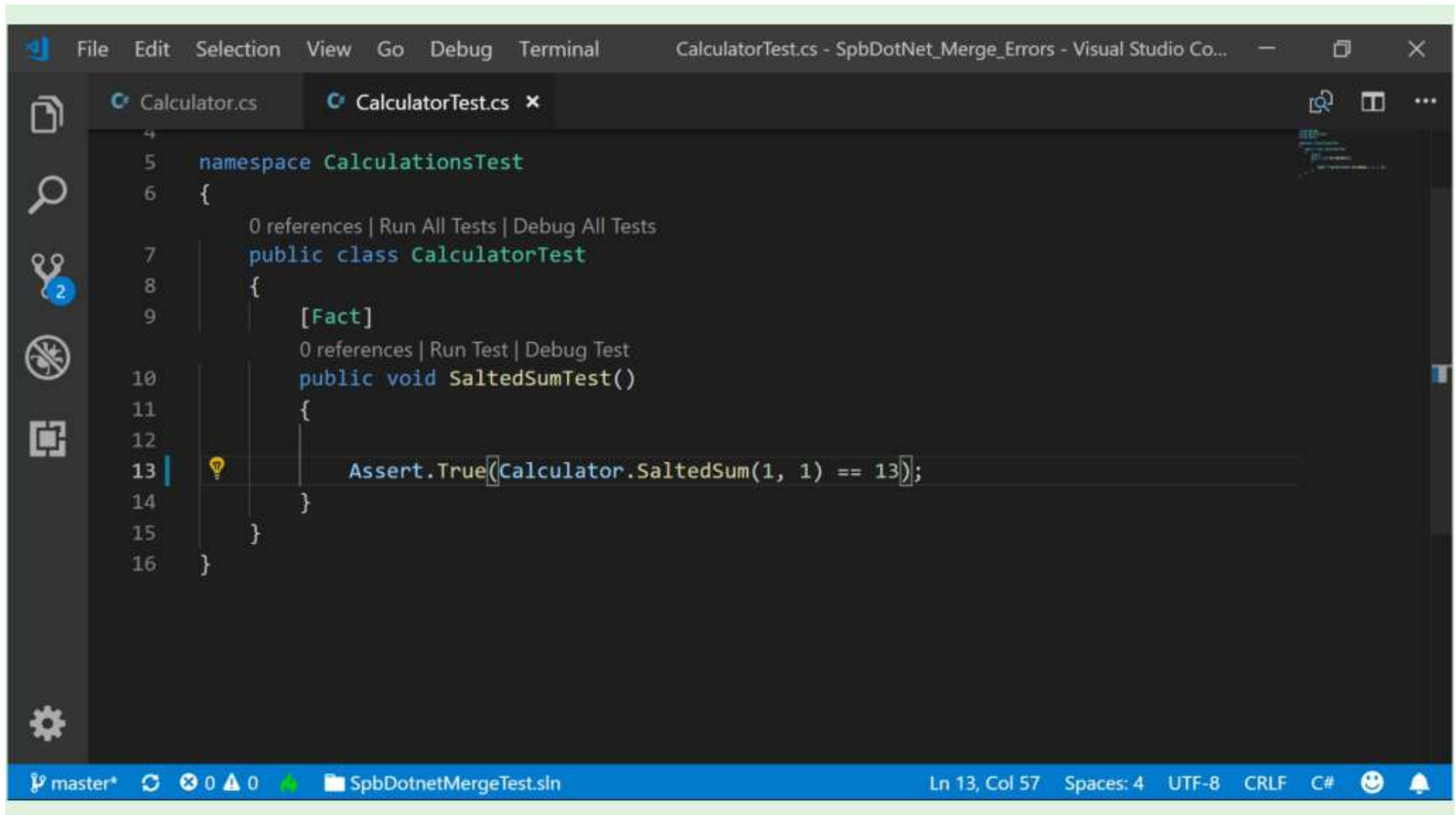
У меня все работает и у вас, наверное...

Merge конфликты



```
1 namespace Calculations
2 {
3     1 reference
4     public class Calculator
5     {
6         1 reference
7         public static int SaltedSum(int first, int second)
8         {
9             var salt = 10;
10            salt++;
11
12            return first + second + salt;
13        }
14    }
15 }
```

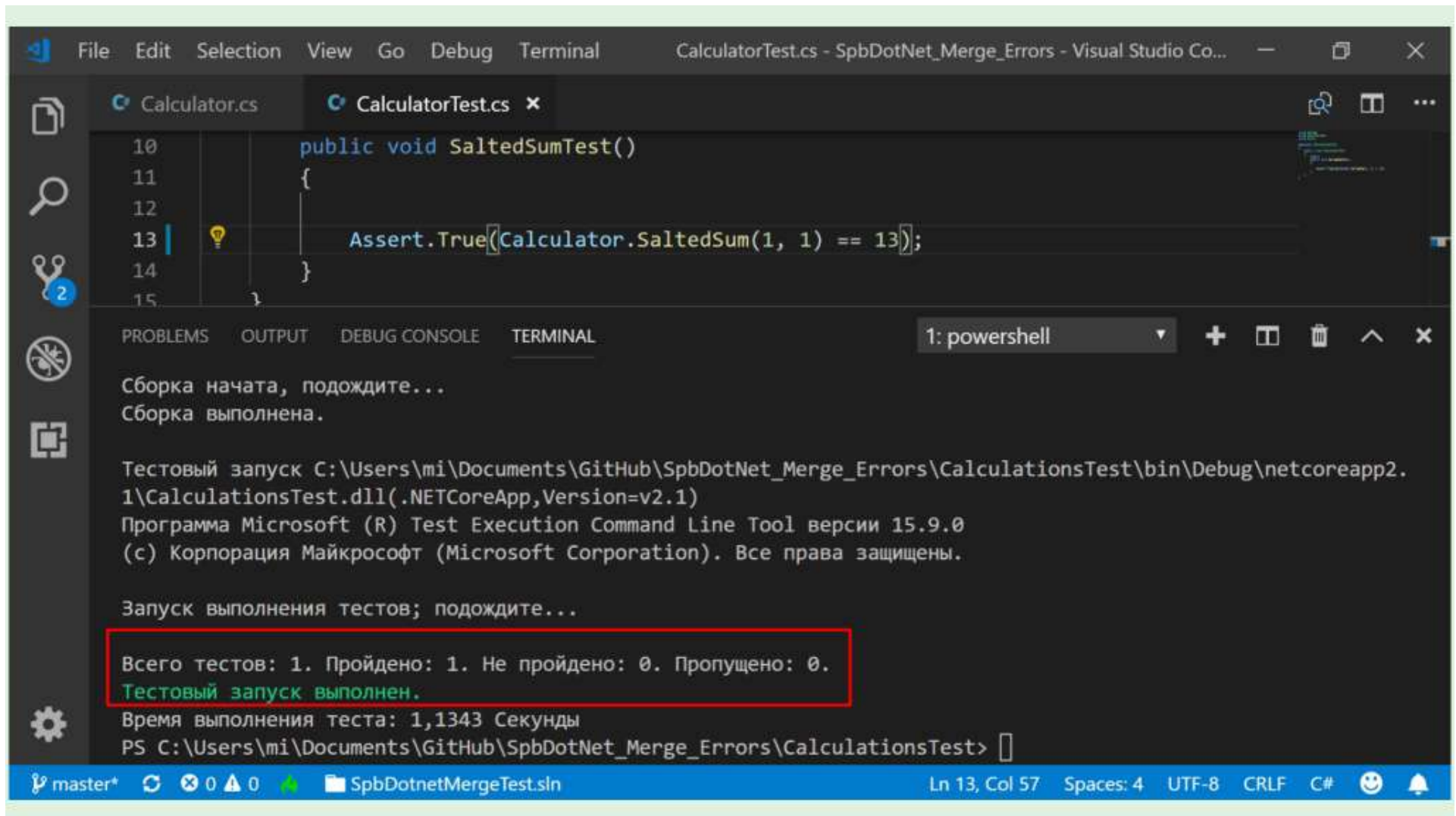
master* 0 0 SpbDotnetMergeTest.sln Ln 4, Col 6 Spaces: 4 UTF-8 CRLF C#



The screenshot shows the Visual Studio IDE with the file `CalculatorTest.cs` open. The code defines a namespace `CalculationsTest` containing a class `CalculatorTest` with a test method `SaltedSumTest()`. A syntax error is highlighted on line 13: `Assert.True[Calculator.SaltedSum(1, 1) == 13];`. The error message is `CS0103: The name 'Calculator' does not exist in the current context`. The status bar at the bottom shows the file is on the `master*` branch, with 0 errors and 0 warnings, and the current position is line 13, column 57.

```
4
5 namespace CalculationsTest
6 {
7     0 references | Run All Tests | Debug All Tests
8     public class CalculatorTest
9     {
10         [Fact]
11         0 references | Run Test | Debug Test
12         public void SaltedSumTest()
13         {
14             Assert.True[Calculator.SaltedSum(1, 1) == 13];
15         }
16     }
```

master* 0 0 SpbDotnetMergeTest.sln Ln 13, Col 57 Spaces: 4 UTF-8 CRLF C#



ddydeveloper / SpbDotNet_Merge_Errors build passing

[Current](#) [Branches](#) [Build History](#) [Pull Requests](#) > [Build #42](#)

More options 

✓ **master** init

🔄 #42 passed

🔄 Restart build

🔄 Commit bbce63f 

🕒 Ran for 1 min 28 sec

🔄 Compare 141ebc9...bbce63f 

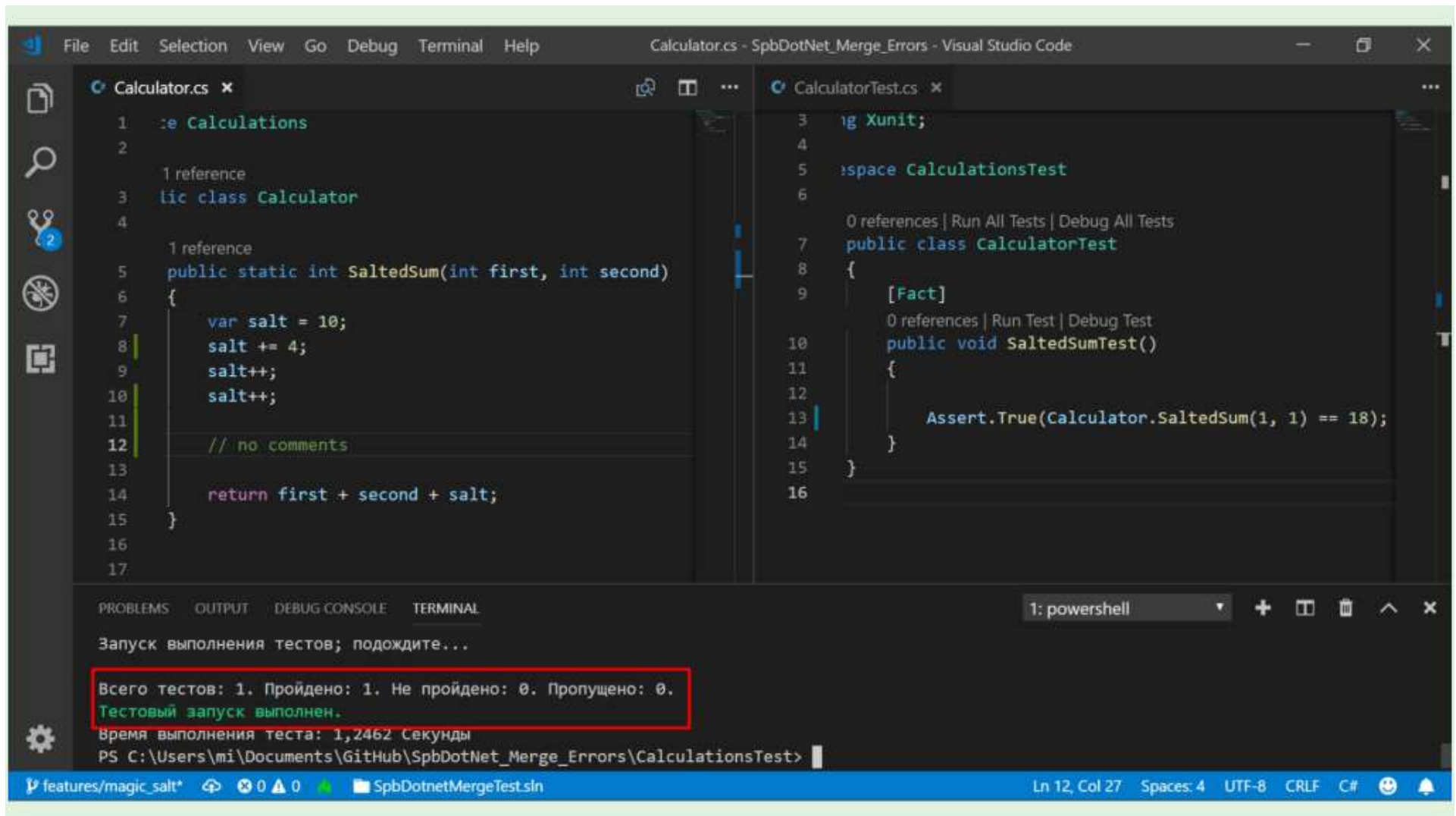
📅 13 minutes ago

🔄 Branch master 

 Daniil

 `</>` Mono: none C#

Создадим ветку "magic_salt" и внесем изменения



ddydeveloper / SpbDotNet_Merge_Errors build passing

Current Branches Build History Pull Requests > [Build #43](#)

More options 


✓ [features/magic_salt](#) modified

🔄 #43 passed

 Restart build

🔄 Commit [c715993](#) 

🕒 Ran for 1 min 30 sec

🔗 Compare [c715993f8acf](#) 

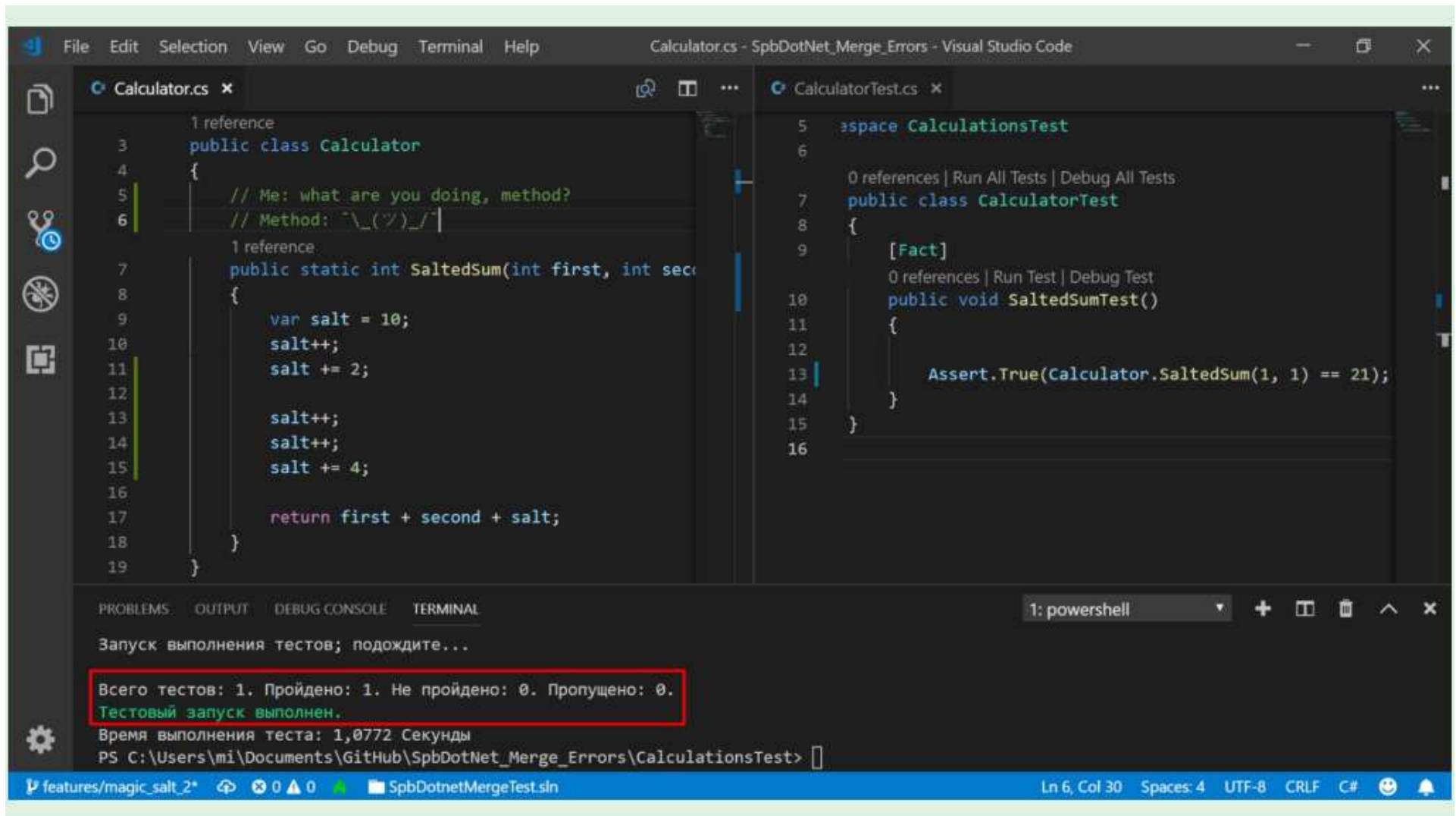
📅 9 minutes ago

🔗 Branch [features/magic_salt](#) 

 Daniil

 `</>` Mono: none C#

Создадим ветку "magic_salt_2" и внесем изменения





ddydeveloper / SpbDotNet_Merge_Errors



build **passing**

Current

Branches

Build History

Pull Requests

> **Build #44**

More options



✓ **features/magic_salt_2** modified

🔄 #44 passed

🔄 Restart build

🔄 Commit e6d42e4 [↗](#)

🕒 Ran for 1 min 27 sec

🔗 Compare e6d42e4531be [↗](#)

📅 2 minutes ago

🔗 Branch features/magic_salt_2 [↗](#)

 Daniil

🤖 </> Mono: none C#

Займёмся слиянием изменений

Add more commits by pushing to the `features/magic_salt` branch on `ddydeveloper/SpbDotNet_Merge_Errors`.



Some checks haven't completed yet

[Hide all checks](#)

1 pending and 1 successful checks



`continuous-integration/travis-ci/pr` Pending — The Travis CI build is in progress

[Details](#)



`continuous-integration/travis-ci/push` — The Travis CI build passed

[Details](#)



This branch has no conflicts with the base branch

Merging can be performed automatically.

Merge pull request



You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

Labels



None yet

Projects



None yet

Milestone



No milestone

Notifications

Unsubscribe

You're receiving notifications because you authored the thread.

1 participant



Lock conversation



Write

Preview

AA B i



Leave a comment

Attach files by dragging & dropping, selecting them, or pasting from the clipboard.

MS Styling with Markdown is supported

Close pull request

Comment

Add more commits by pushing to the `features/magic_salt_2` branch on `ddydeveloper/SpbDotNet_Merge_Errors`.



Some checks were not successful

[Hide all checks](#)

1 errored and 1 successful checks



`continuous-integration/travis-ci/pr` — The Travis CI build could not complete due t...

[Details](#)



`continuous-integration/travis-ci/push` — The Travis CI build passed

[Details](#)



This branch has conflicts that must be resolved

[Resolve conflicts](#)

Use the [web editor](#) or the [command line](#) to resolve conflicts.

Conflicting files

`Calculations/Calculator.cs`

`CalculationsTest/CalculatorTest.cs`

Merge pull request



You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

Resolving conflicts between features/magic_salt_2 and master and committing changes ➔ features/magic_salt_2

2 conflicting files

Calculations/Calculator.cs

1 conflict

Prev ^

Next v



Mark as resolved



Calculator.cs

Calculations/Calculator.cs



CalculatorTest.cs

CalculationsTest/CalculatorTest.cs

```
1 namespace Calculations
2 {
3     public class Calculator
4     {
5         // Me: what are you doing, method?
6         // Method: ~\_(\`)\_/~
7         public static int SaltedSum(int first, int second)
8         {
9             var salt = 10;
10            salt += 4;
11            salt++;
12            <<<<<< features/magic_salt_2
13                salt += 2;
14
15                salt++;
16                salt++;
17                salt += 4;
18            =====
19                salt++;
20
21                // no comments
22            >>>>>> master
```

Resolving conflicts between features/magic_salt_2 and master and committing changes ➔ features/magic_salt_2

2 conflicting files

Calculations/Calculator.cs

1 conflict

Prev ^

Next v



Mark as resolved



Calculator.cs

Calculations/Calculator.cs



CalculatorTest.cs

CalculationsTest/CalculatorTest.cs

```
1 namespace Calculations
2 {
3     public class Calculator
4     {
5         // Me: what are you doing, method?
6         // Method: ~\_(\`)\_/~
7         public static int SaltedSum(int first, int second)
8         {
9             var salt = 10;
10            salt += 4;
11            salt++;
12            <<<<<<< features/magic salt 2
13                salt += 2;
14
15                salt++;
16                salt++;
17                salt += 4;
18            =====
19                salt++;
20
21                // no comments
22            >>>>>> master
```

Resolving conflicts between features/magic_salt_2 and master and committing changes ➔ features/magic_salt_2

2 conflicting files

Calculations/Calculator.cs

✓ Resolved

Calculator.cs

Calculations/Calculator.cs



CalculatorTest.cs

CalculationsTest/CalculatorTest.cs

```
1  namespace Calculations
2  {
3      public class Calculator
4      {
5          // Me: what are you doing, method?
6          // Method: ~\_(`\`)\_/~
7          public static int SaltedSum(int first, int second)
8          {
9              var salt = 10;
10             salt += 4;
11             salt++;
12
13             salt += 2;
14
15             salt++;
16             salt++;
17             salt += 4;
18
19             salt++;
20
21             // no comments
22
```

ddydeveloper / SpbDotNet_Merge_Errors build passing

[Current](#) [Branches](#) [Build History](#) [Pull Requests](#) > [Build #50](#)


[More options](#) 

 **master** Merge pull request #12 from ddydeveloper/fe

 **#50 failed**

 [Restart build](#)

modified

 Ran for 1 min 53 sec

 13 minutes ago

Started December 4, 2018 16:18:30

 Commit 41b1c73 [↗](#)

 Compare 32a54da...41b1c73 [↗](#)

 Branch master [↗](#)



Daniil



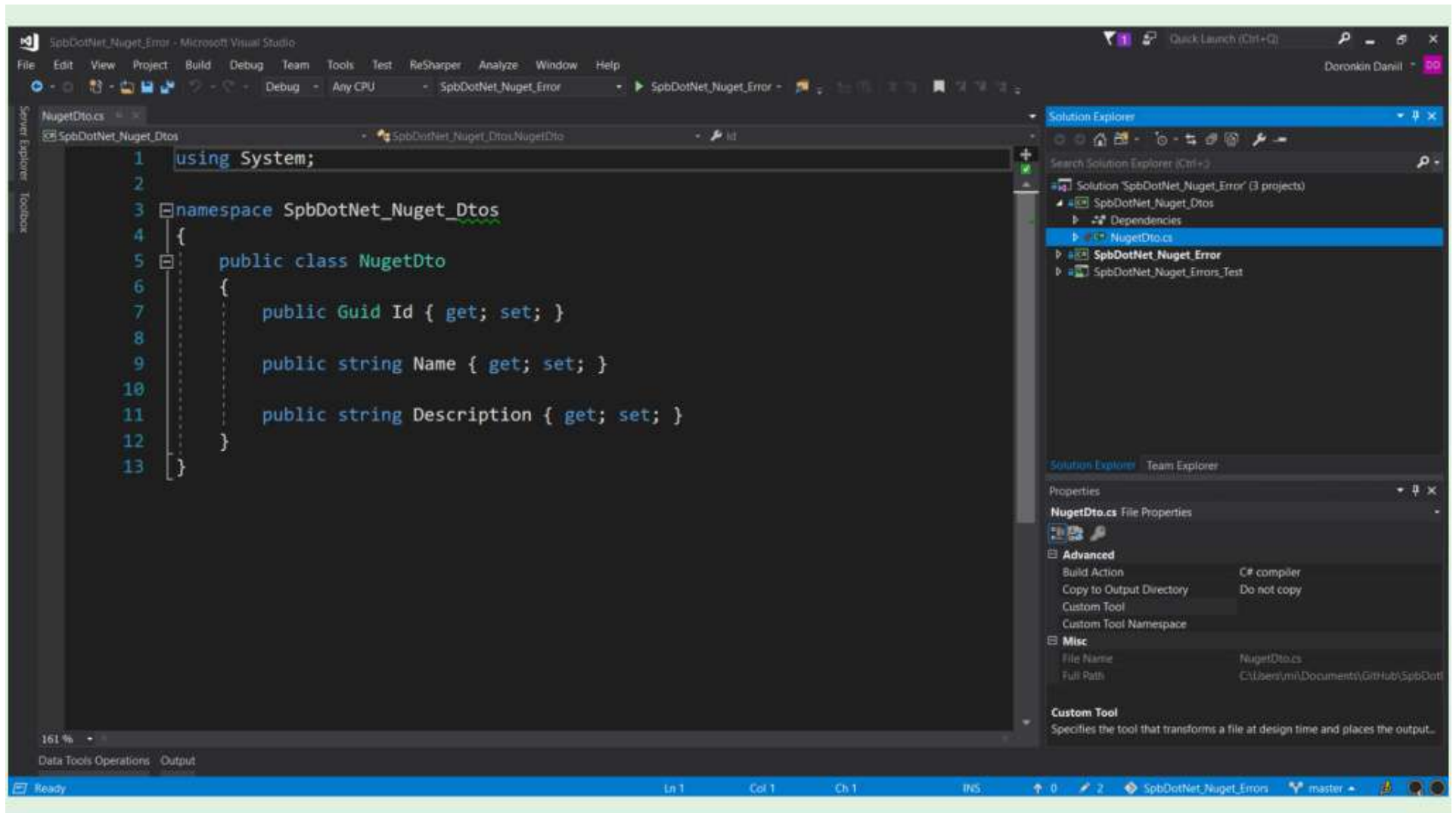
</> Mono: none C#

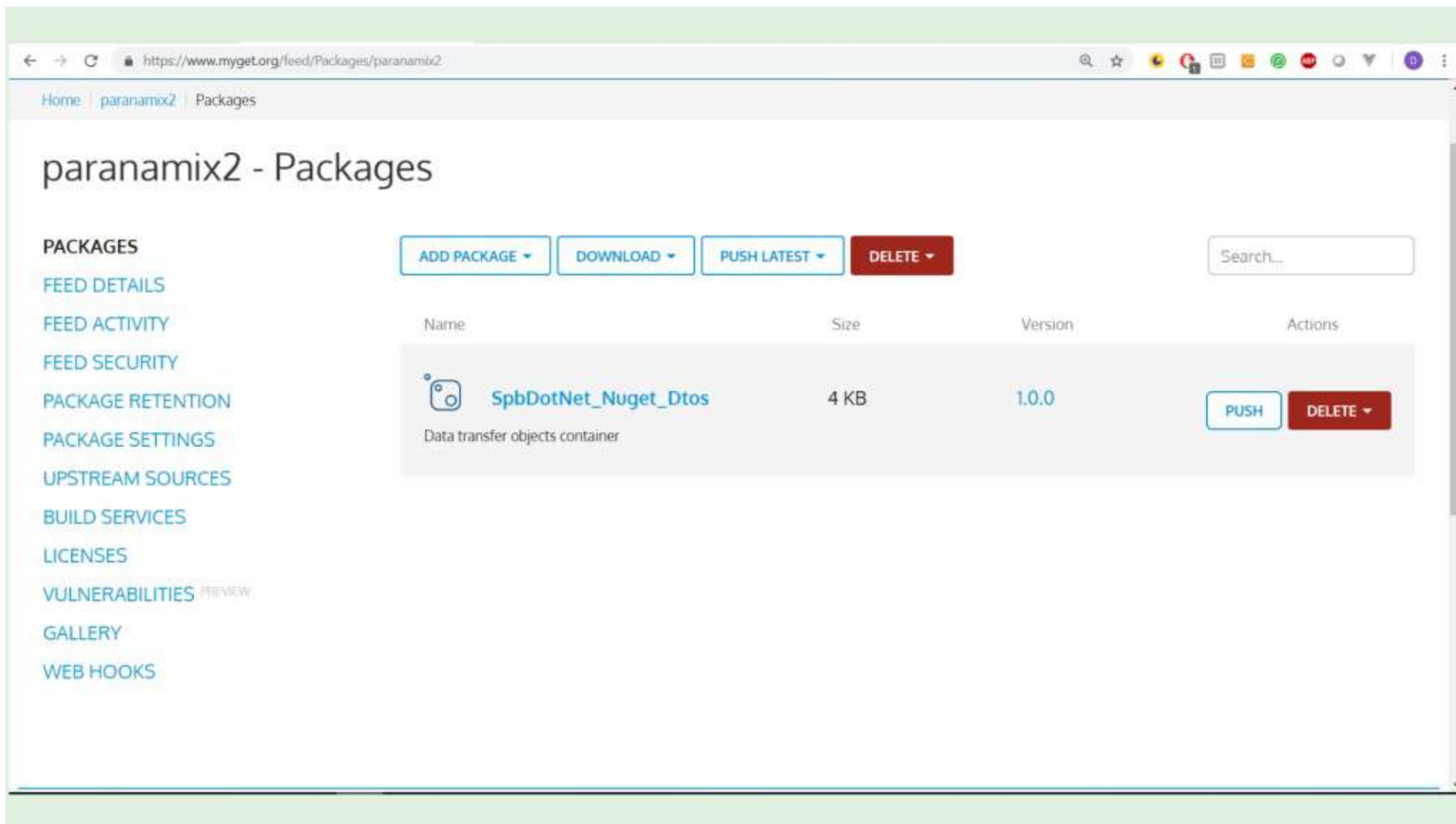
```
550
551 Test run for
    /home/travis/build/ddydeveloper/SpbDotNet_Merge_Errors/CalculationsTest/bin/Debug/netcoreapp2.1/Calculati
    onsTest.dll(.NETCoreApp,Version=v2.1)
552 Microsoft (R) Test Execution Command Line Tool Version 15.9.0
553 Copyright (c) Microsoft Corporation. All rights reserved.
554
555 Starting test execution, please wait...
556 [xUnit.net 00:00:00.7337345]      CalculationsTest.CalculatorTest.SaltedSumTest [FAIL]
557 Failed    CalculationsTest.CalculatorTest.SaltedSumTest
558 Error Message:
559     Assert.True() Failure
560 Expected: True
561 Actual:   False
562 Stack Trace:
563     at CalculationsTest.CalculatorTest.SaltedSumTest() in
    /home/travis/build/ddydeveloper/SpbDotNet_Merge_Errors/CalculationsTest/CalculatorTest.cs:line 12
564
565 Total tests: 1. Passed: 0. Failed: 1. Skipped: 0.
566 Test Run Failed.
567 Test execution time: 2.4223 Seconds
568 The command "dotnet test ./CalculationsTest/CalculationsTest.csproj" exited with 1.
569
```

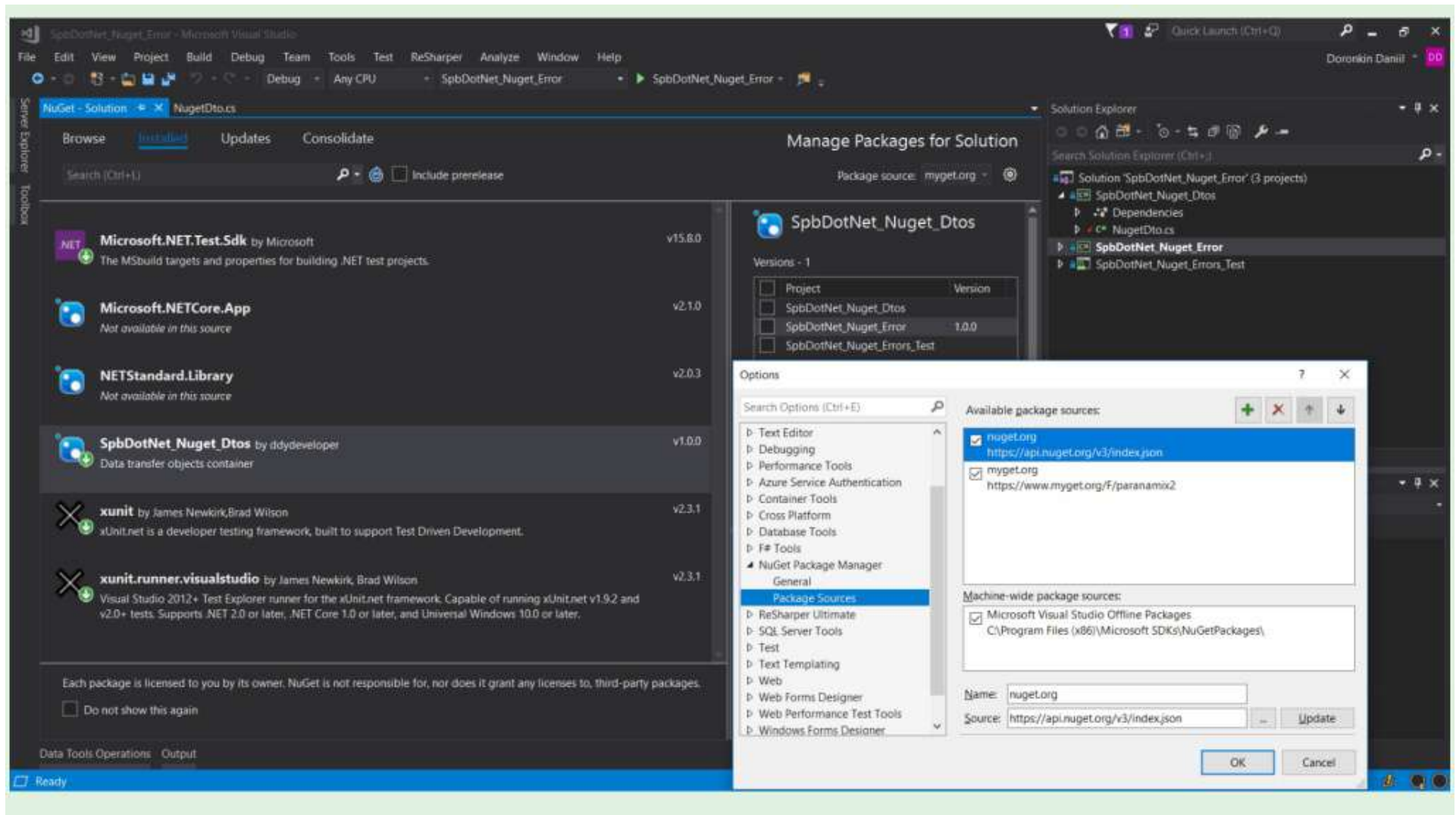
Top ▲

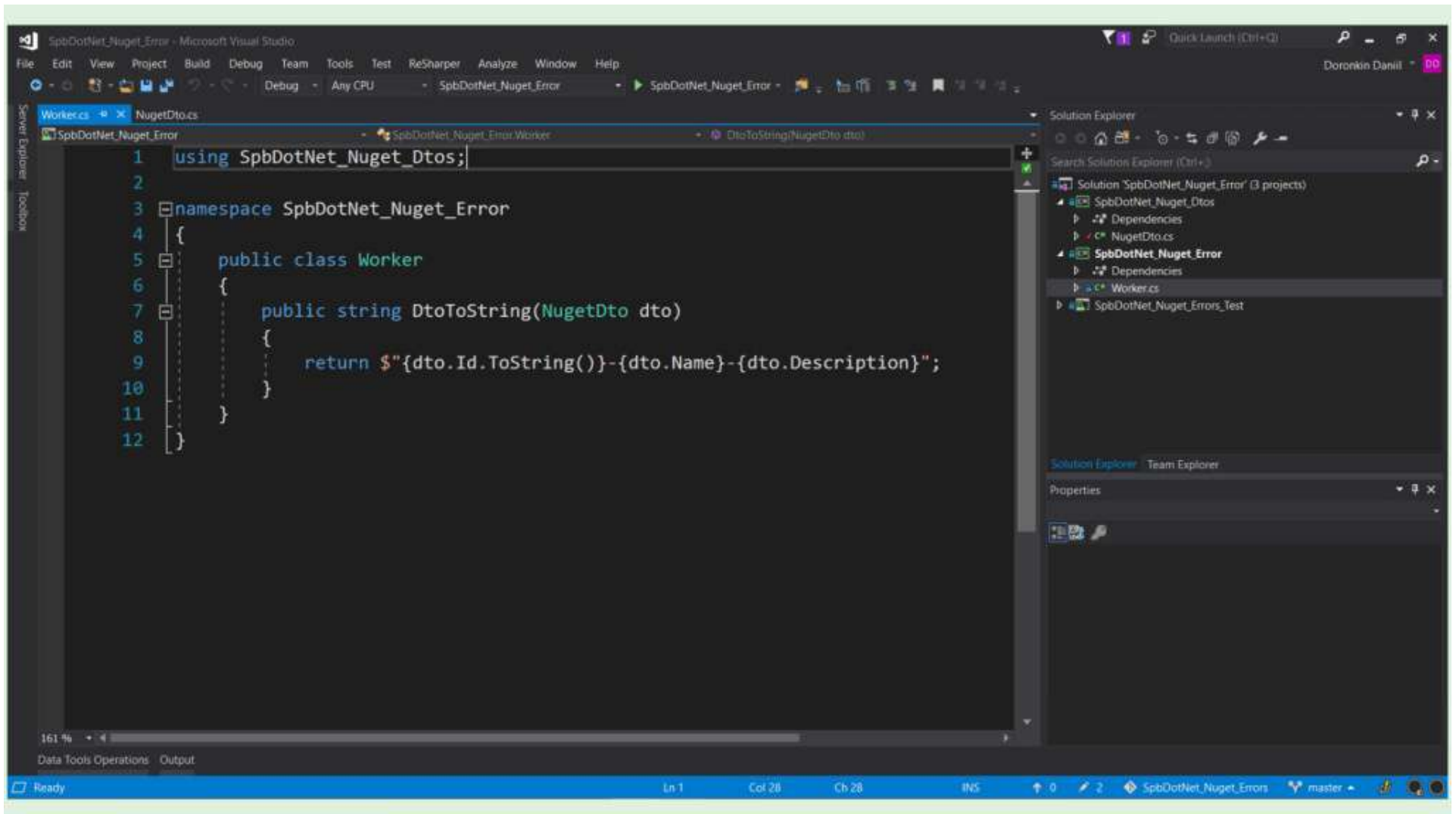
Будь аккуратнее с merge конфликтами

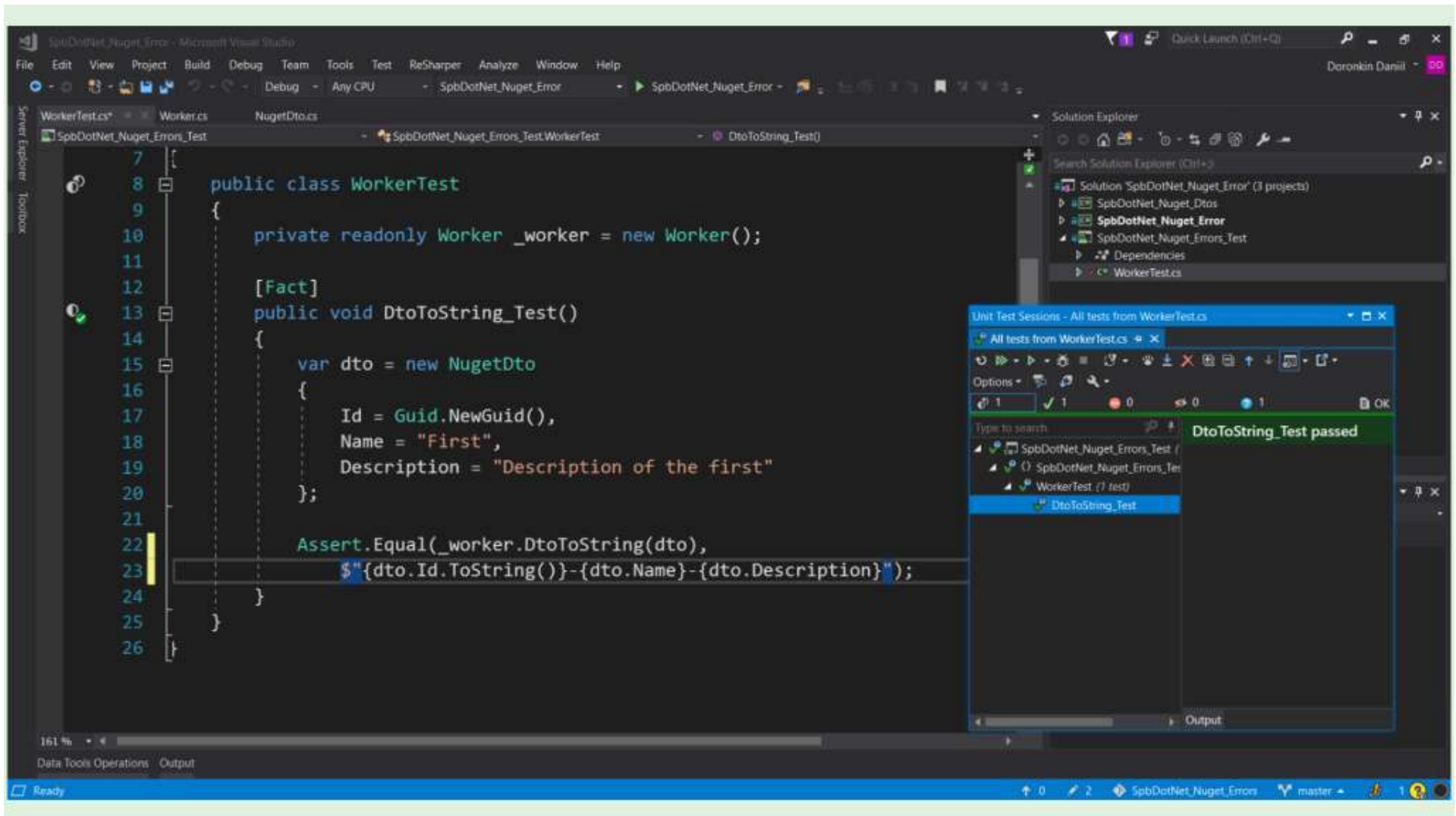
Nuget пакеты













ddydeveloper / SpbDotNet_Nuget_Errors



build error

[Current](#)[Branches](#)[Build History](#)[Pull Requests](#)> [Build #43](#)[More options](#)✓ **master** Initialize nuget

- #43 passed

[Restart build](#)- Commit 2e67146 [↗](#)

- ⌚ Ran for 2 min 11 sec

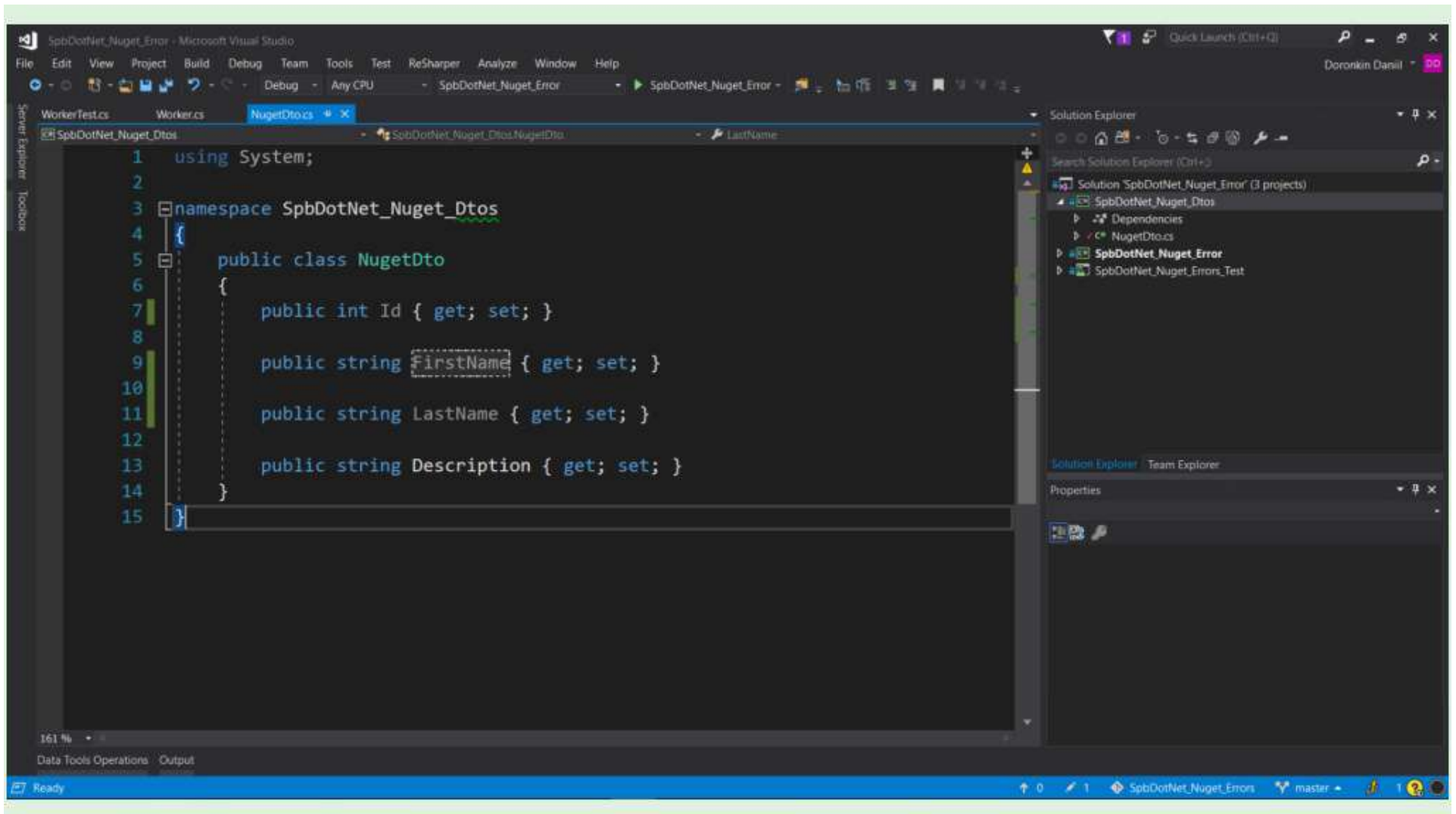
- Compare d8264ec...2e67146 [↗](#)

- 📅 9 days ago

- Branch master [↗](#)

Daniil

</> Mono: none C#





ddydeveloper / SpbDotNet_Nuget_Errors



build error

[Current](#) [Branches](#) [Build History](#) [Pull Requests](#) > [Build #44](#)[More options](#)**✖ master** Updated package Commit 4375d0d [↗](#) Compare 2e67146...4375d0d [↗](#) Branch master [↗](#)

Daniil

`</>` Mono: none C#**✖ #44 failed**

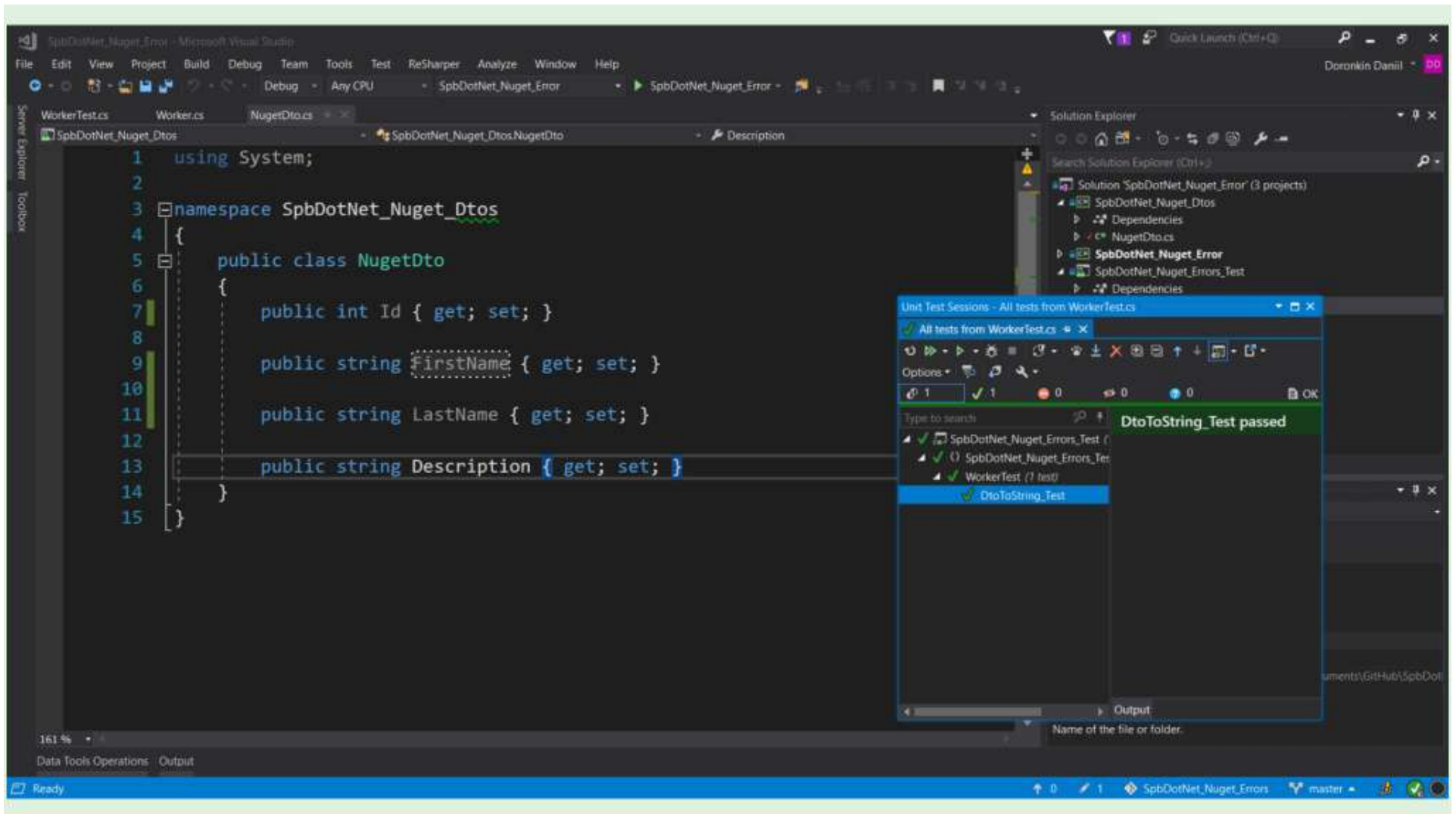
Ran for 1 min 39 sec

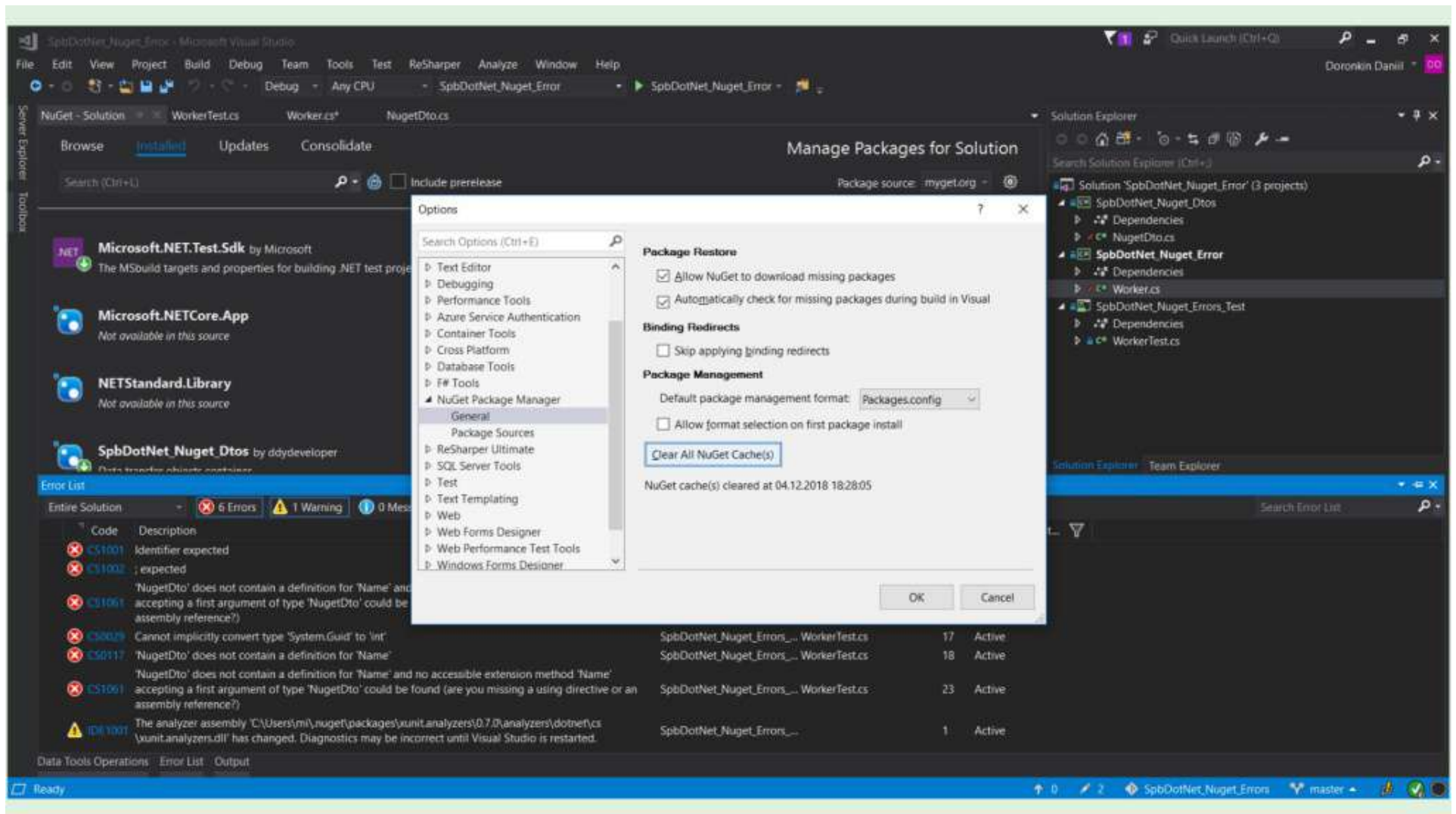
9 days ago

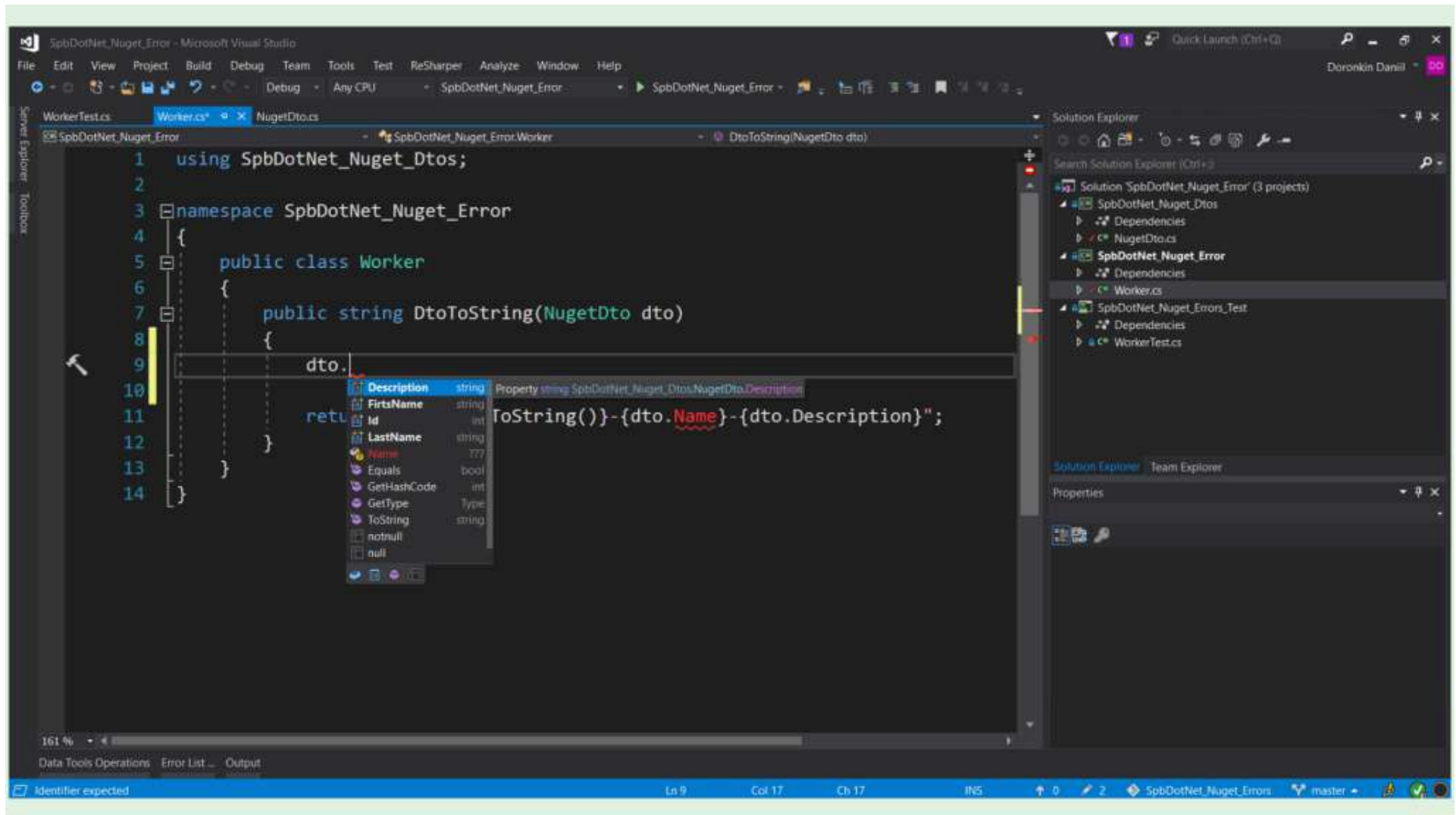
[↻ Restart build](#)

```
541 Restore completed in 3.34 ms for
/home/travis/build/ddydeveloper/SpbDotNet_Nuget_Errors/SpbDotNet_Nuget_Errors_Test/SpbDotNet_Nuget_Errors_Test.csproj.
542 Generating MSBuild file
/home/travis/build/ddydeveloper/SpbDotNet_Nuget_Errors/SpbDotNet_Nuget_Dtos/obj/SpbDotNet_Nuget_Dtos.csproj.nuget.g.props.
543 Generating MSBuild file
/home/travis/build/ddydeveloper/SpbDotNet_Nuget_Errors/SpbDotNet_Nuget_Dtos/obj/SpbDotNet_Nuget_Dtos.csproj.nuget.g.targets.
544 Restore completed in 219.7 ms for
/home/travis/build/ddydeveloper/SpbDotNet_Nuget_Errors/SpbDotNet_Nuget_Dtos/SpbDotNet_Nuget_Dtos.csproj.
545 Worker.cs(9,47): error CS1061: 'NugetDto' does not contain a definition for 'Name' and no accessible extension method 'Name'
accepting a first argument of type 'NugetDto' could be found (are you missing a using directive or an assembly reference?)
[/home/travis/build/ddydeveloper/SpbDotNet_Nuget_Errors/SpbDotNet_Nuget_Error/SpbDotNet_Nuget_Error.csproj]
546 SpbDotNet_Nuget_Dtos ->
/home/travis/build/ddydeveloper/SpbDotNet_Nuget_Errors/SpbDotNet_Nuget_Dtos/bin/Debug/netstandard2.0/SpbDotNet_Nuget_Dtos.dll
547
548 Build FAILED.
549
550 Worker.cs(9,47): error CS1061: 'NugetDto' does not contain a definition for 'Name' and no accessible extension method 'Name'
accepting a first argument of type 'NugetDto' could be found (are you missing a using directive or an assembly reference?)
[/home/travis/build/ddydeveloper/SpbDotNet_Nuget_Errors/SpbDotNet_Nuget_Error/SpbDotNet_Nuget_Error.csproj]
551 0 Warning(s)
552 1 Error(s)
553
554 Time Elapsed 00:00:03.56
555 The command "dotnet build" exited with 1.
556
557 $ dotnet test ./SpbDotNet_Nuget_Errors_Test/SpbDotNet_Nuget_Errors_Test.csproj
558 Build started please wait
```

1.70s
Top







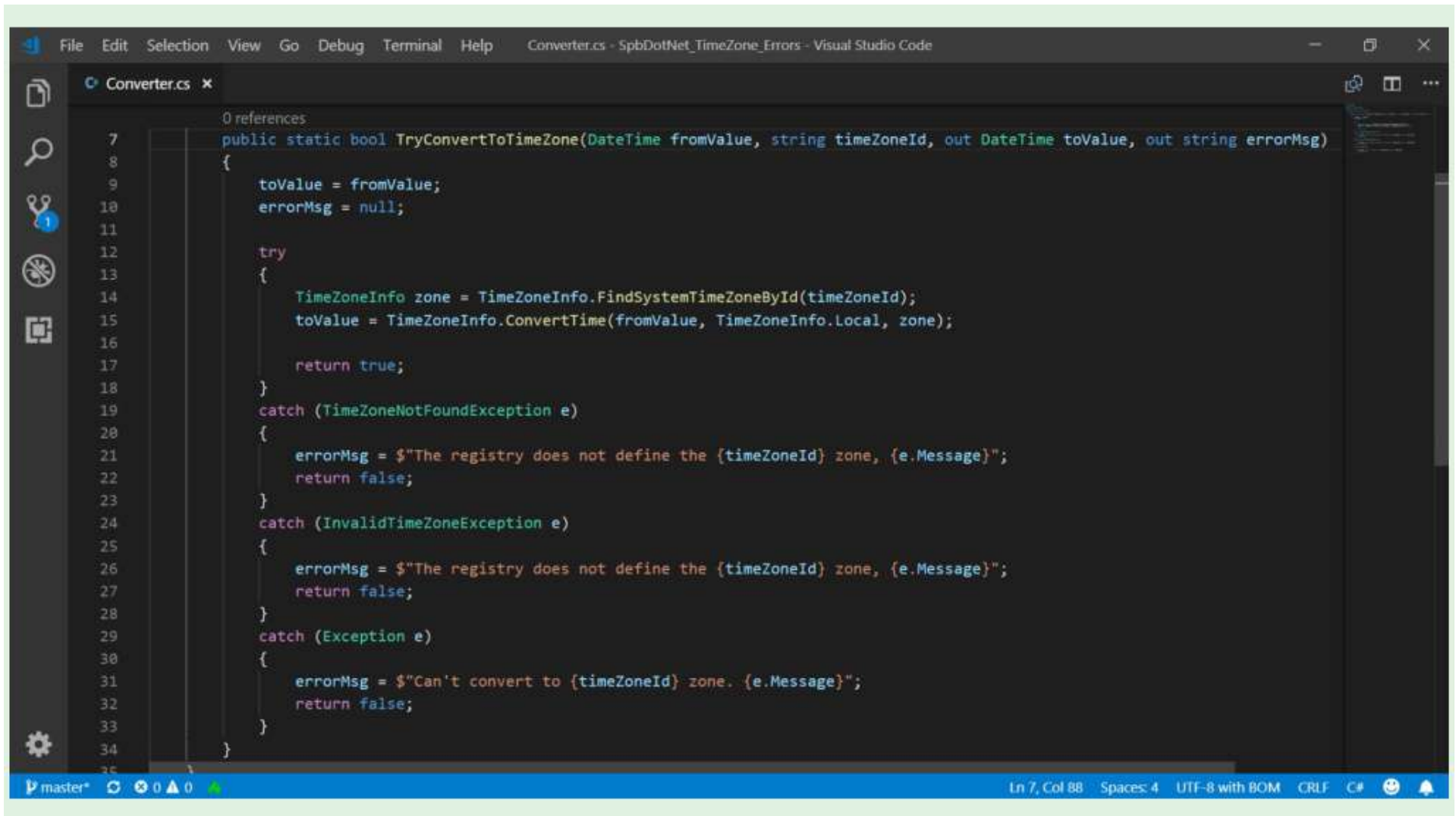
Не забываем про версионирование пакетов

Не забываем про версионирование пакетов

Внимательно читаем логи CI сервера

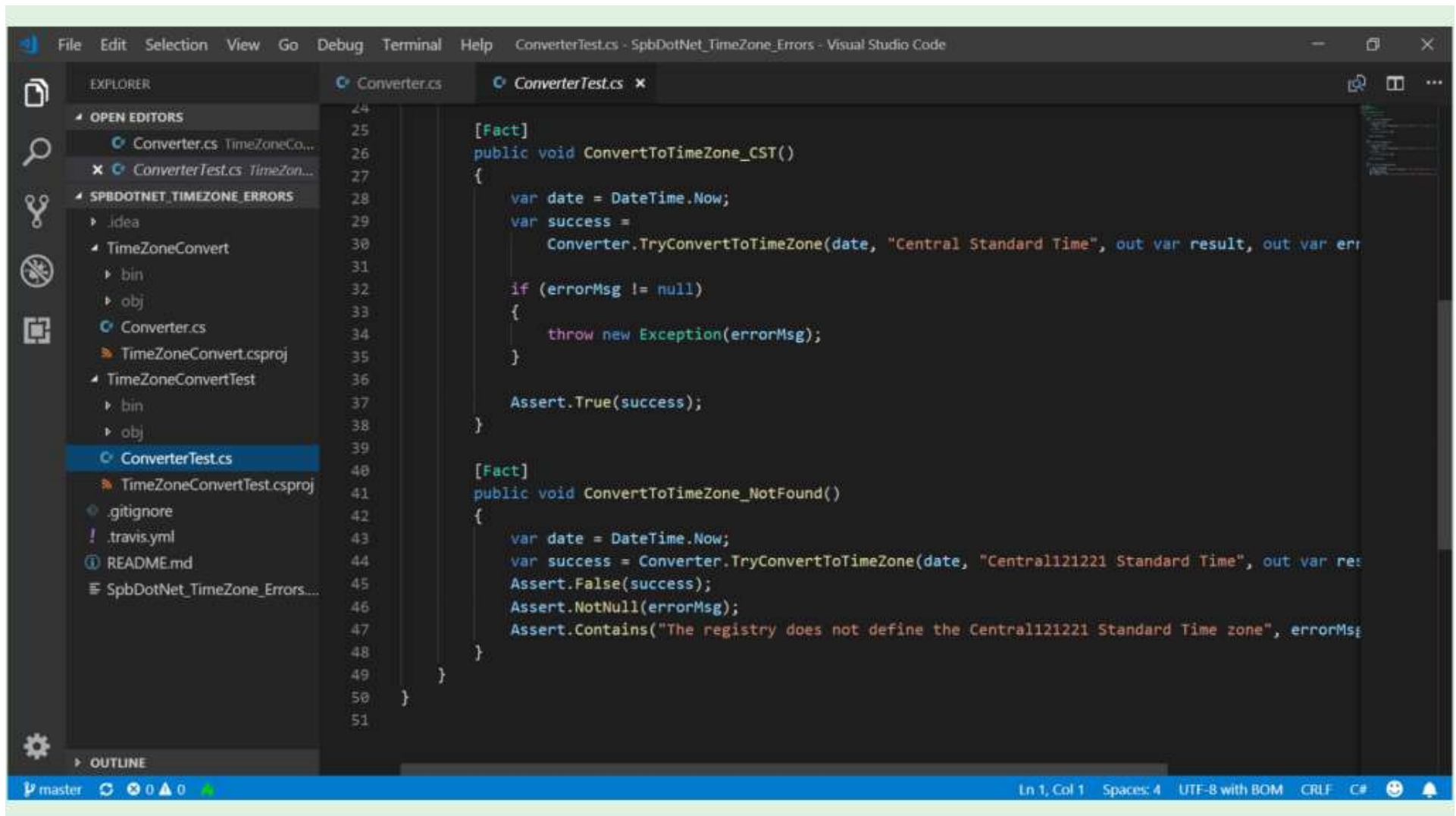
Time zone API

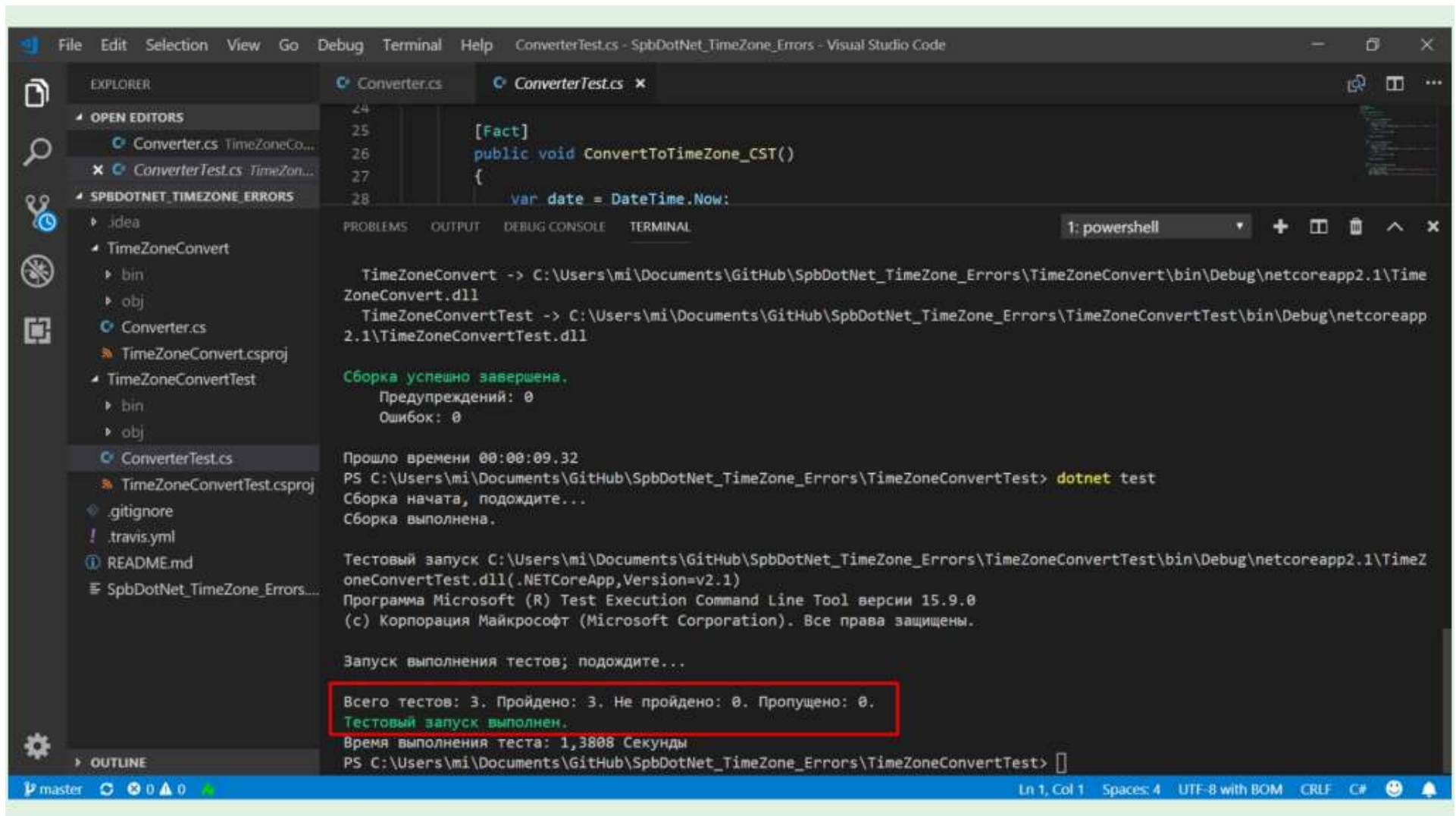
17



```
0 references
7 public static bool TryConvertToTimeZone(DateTime fromValue, string timeZoneId, out DateTime toValue, out string errorMsg)
8 {
9     toValue = fromValue;
10    errorMsg = null;
11
12    try
13    {
14        TimeZoneInfo zone = TimeZoneInfo.FindSystemTimeZoneById(timeZoneId);
15        toValue = TimeZoneInfo.ConvertTime(fromValue, TimeZoneInfo.Local, zone);
16
17        return true;
18    }
19    catch (TimeZoneNotFoundException e)
20    {
21        errorMsg = $"The registry does not define the {timeZoneId} zone, {e.Message}";
22        return false;
23    }
24    catch (InvalidTimeZoneException e)
25    {
26        errorMsg = $"The registry does not define the {timeZoneId} zone, {e.Message}";
27        return false;
28    }
29    catch (Exception e)
30    {
31        errorMsg = $"Can't convert to {timeZoneId} zone. {e.Message}";
32        return false;
33    }
34 }
```

master* 0 0 0 Ln 7, Col 88 Spaces: 4 UTF-8 with BOM CRLF





ddydeveloper / SpbDotNet_TimeZone_Errors build failing

[Current](#) [Branches](#) [Build History](#) [Pull Requests](#) > [Build #7](#)


[More options](#) 

 **master** [Make static](#)

 **#7 failed**

 [Restart build](#)

 [Commit e716cac](#) 

 [Ran for 1 min 31 sec](#)

 [Compare bf0b693...e716cac](#) 

 [9 days ago](#)

 [Branch master](#) 

 [Daniil](#)

 [Mono: none C#](#)

[Job log](#)

[View config](#)

```
553 Microsoft (R) Test Execution Command Line Tool Version 15.9.0
554 Copyright (c) Microsoft Corporation. All rights reserved.
555
556 Starting test execution, please wait...
557 [xUnit.net 00:00:00.7468275]     TimeZoneConverterTest.ConverterTest.ConvertToTimeZone_PST [FAIL]
558 [xUnit.net 00:00:00.7753517]     TimeZoneConverterTest.ConverterTest.ConvertToTimeZone_CST [FAIL]
559 Failed    TimeZoneConverterTest.ConverterTest.ConvertToTimeZone_PST
560 Error Message:
561 System.Exception : The registry does not define the Pacific Standard Time zone, The time zone ID 'Pacific Standard Time' was
not found on the local computer.
562 Stack Trace:
563     at TimeZoneConverterTest.ConverterTest.ConvertToTimeZone_PST() in
/home/travis/build/ddydeveloper/SpbDotNet_TimeZone_Errors/TimeZoneConvertTest/ConverterTest.cs:line 22
564 Failed    TimeZoneConverterTest.ConverterTest.ConvertToTimeZone_CST
565 Error Message:
566 System.Exception : The registry does not define the Central Standard Time zone, The time zone ID 'Central Standard Time' was
not found on the local computer.
567 Stack Trace:
568     at TimeZoneConverterTest.ConverterTest.ConvertToTimeZone_CST() in
/home/travis/build/ddydeveloper/SpbDotNet_TimeZone_Errors/TimeZoneConvertTest/ConverterTest.cs:line 37
569
570 Total tests: 3. Passed: 1. Failed: 2. Skipped: 0.
571 Test Run Failed.
572 Test execution time: 2.4546 Seconds
573 The command "dotnet test ./TimeZoneConvertTest/TimeZoneConvertTest.csproj" exited with 1.
```

Top ▲

TimeZoneInfo in .NET Core when hosting on unix (nginx)



For example, when I try to do the following.

6

```
TimeZoneInfo.FindSystemTimeZoneById("Central European Standard Time")
```



I get the error, that the `TimeZone` is not available on the local computer. When I run this locally it works, but there I run it on windows. When deployed it runs on a Unix machine in Nginx. I can see that `FindSystemTimeZoneById` is looking in the wrong folder when it comes to Unix. Is there any way to make this work?



1

`c#` `.net` `nginx` `timezone` `.net-core`

[share](#) [improve this question](#)

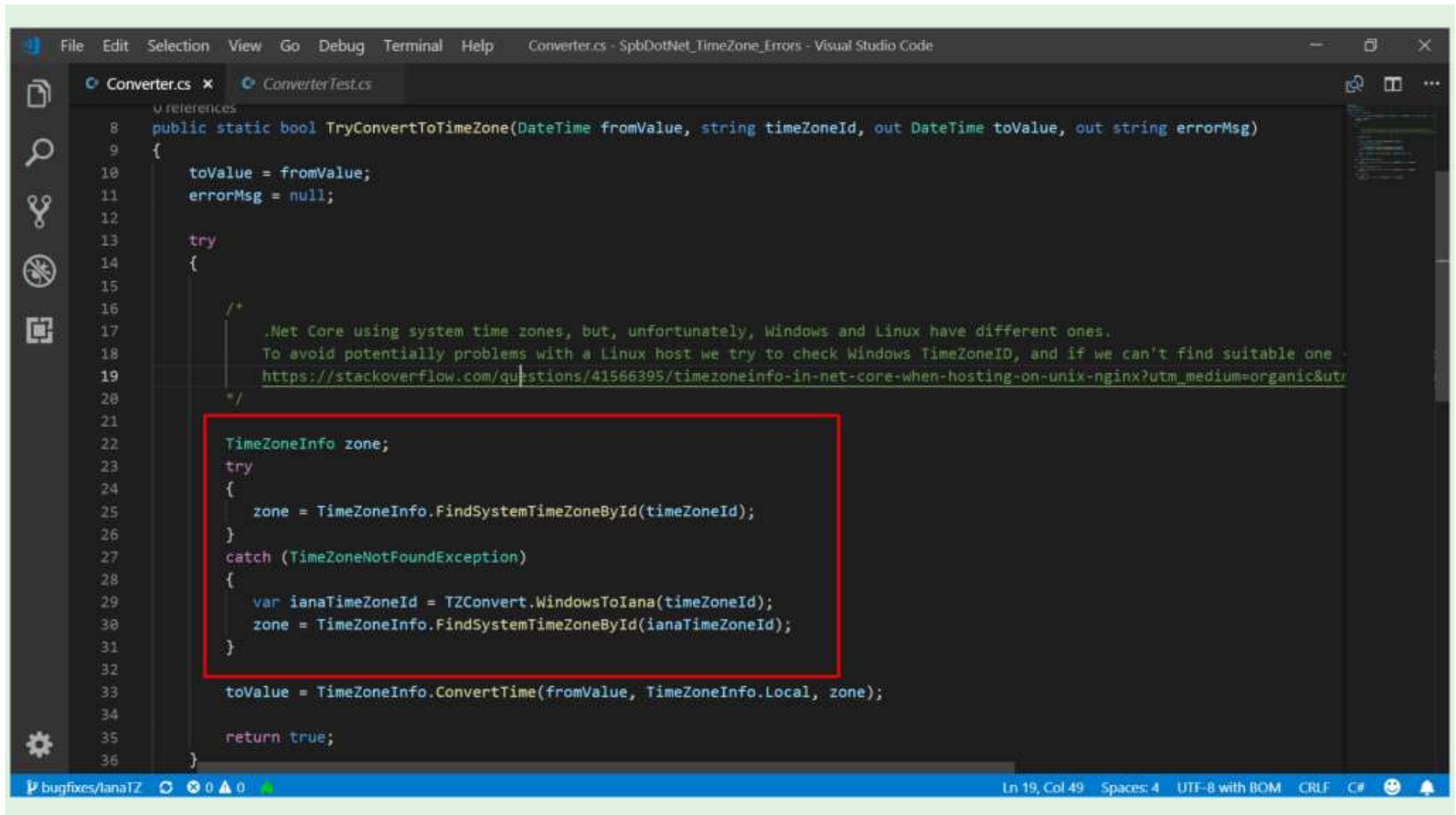
edited Jan 10 '17 at 10:21

asked Jan 10 '17 at 10:16



[noshitsherlock](#)

238 ● 1 ● 6 ● 24



```
8 public static bool TryConvertToTimeZone(DateTime fromValue, string timeZoneId, out DateTime toValue, out string errorMsg)
9 {
10     toValue = fromValue;
11     errorMsg = null;
12
13     try
14     {
15
16         /*
17          .Net Core using system time zones, but, unfortunately, Windows and Linux have different ones.
18          To avoid potentially problems with a Linux host we try to check Windows TimeZoneID, and if we can't find suitable one
19          https://stackoverflow.com/questions/41566395/timezoneinfo-in-net-core-when-hosting-on-unix-nginx?utm_medium=organic&utm_campaign=organic&utm_source=organic
20          */
21
22         TimeZoneInfo zone;
23         try
24         {
25             zone = TimeZoneInfo.FindSystemTimeZoneById(timeZoneId);
26         }
27         catch (TimeZoneNotFoundException)
28         {
29             var ianaTimeZoneId = TZConvert.WindowsToIana(timeZoneId);
30             zone = TimeZoneInfo.FindSystemTimeZoneById(ianaTimeZoneId);
31         }
32
33         toValue = TimeZoneInfo.ConvertTime(fromValue, TimeZoneInfo.Local, zone);
34
35         return true;
36     }
```

bugfixes/ianaTZ 0 0 0 Ln 19, Col 49 Spaces: 4 UTF-8 with BOM CRLF C#



ddydeveloper / SpbDotNet_TimeZone_Errors

build failing

[Current](#) [Branches](#) [Build History](#) [Pull Requests](#) > [Build #8](#)

More options



✓ bugfixes/IanaTZ added yaml

- #8 passed

Restart build

Commit 4c0b091

Compare 260d3e4...4c0b091

Branch bugfixes/IanaTZ

Ran for 6 min 13 sec

9 days ago

Daniil

</> Mono: none C#

Cross-platform surprize

Конвейер выступления

Введение

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CI/CD

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Итоги



Поговорим о CI/CD

Шаги

**Под
капотом**

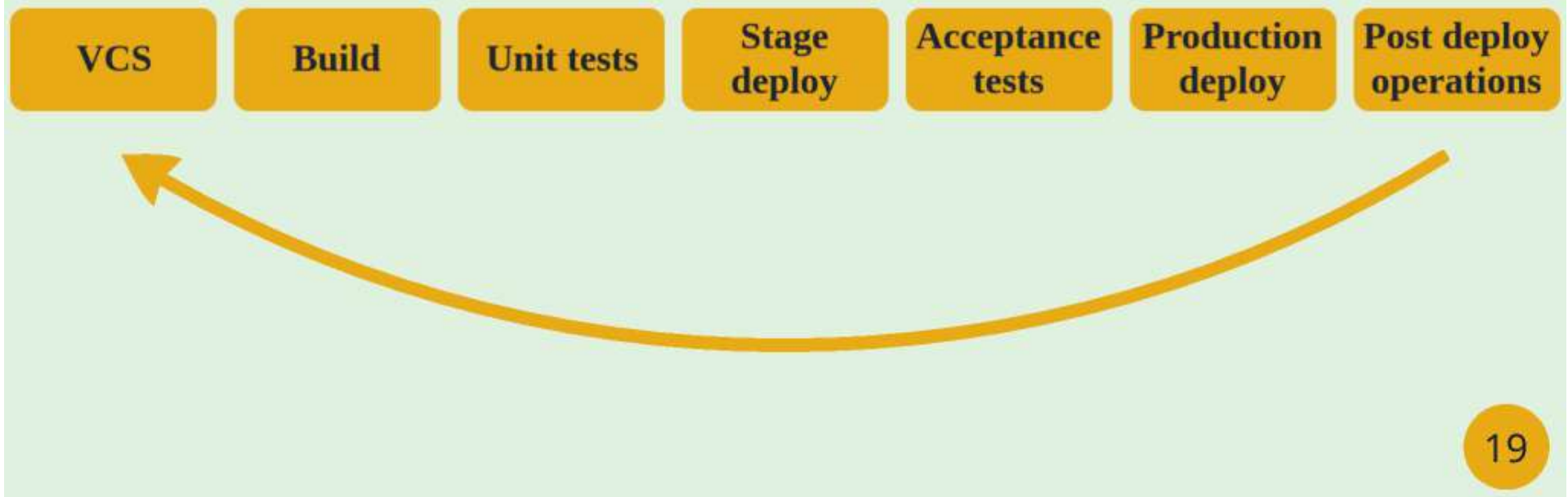
**CI/CD в
наши дни**

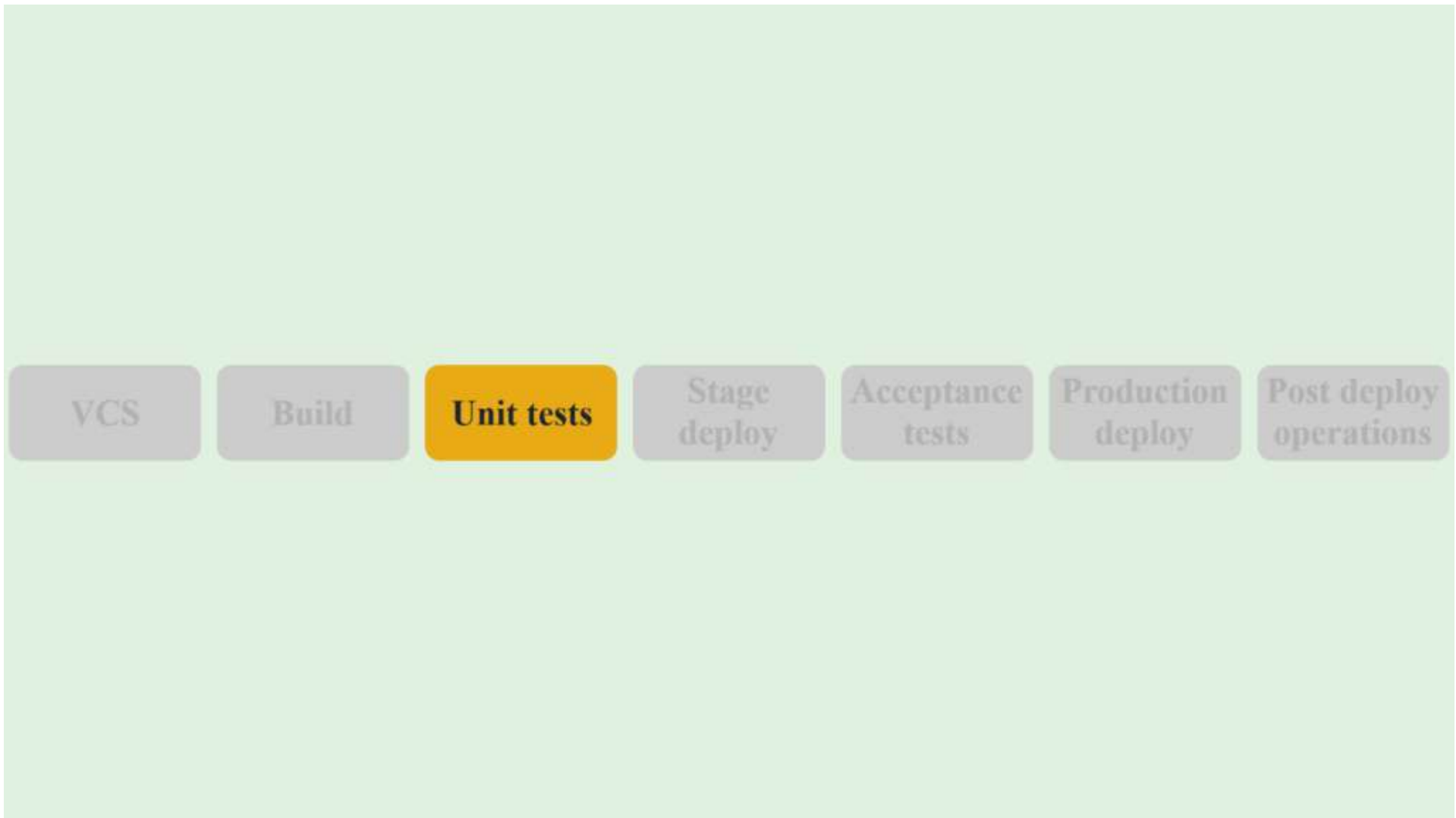
18

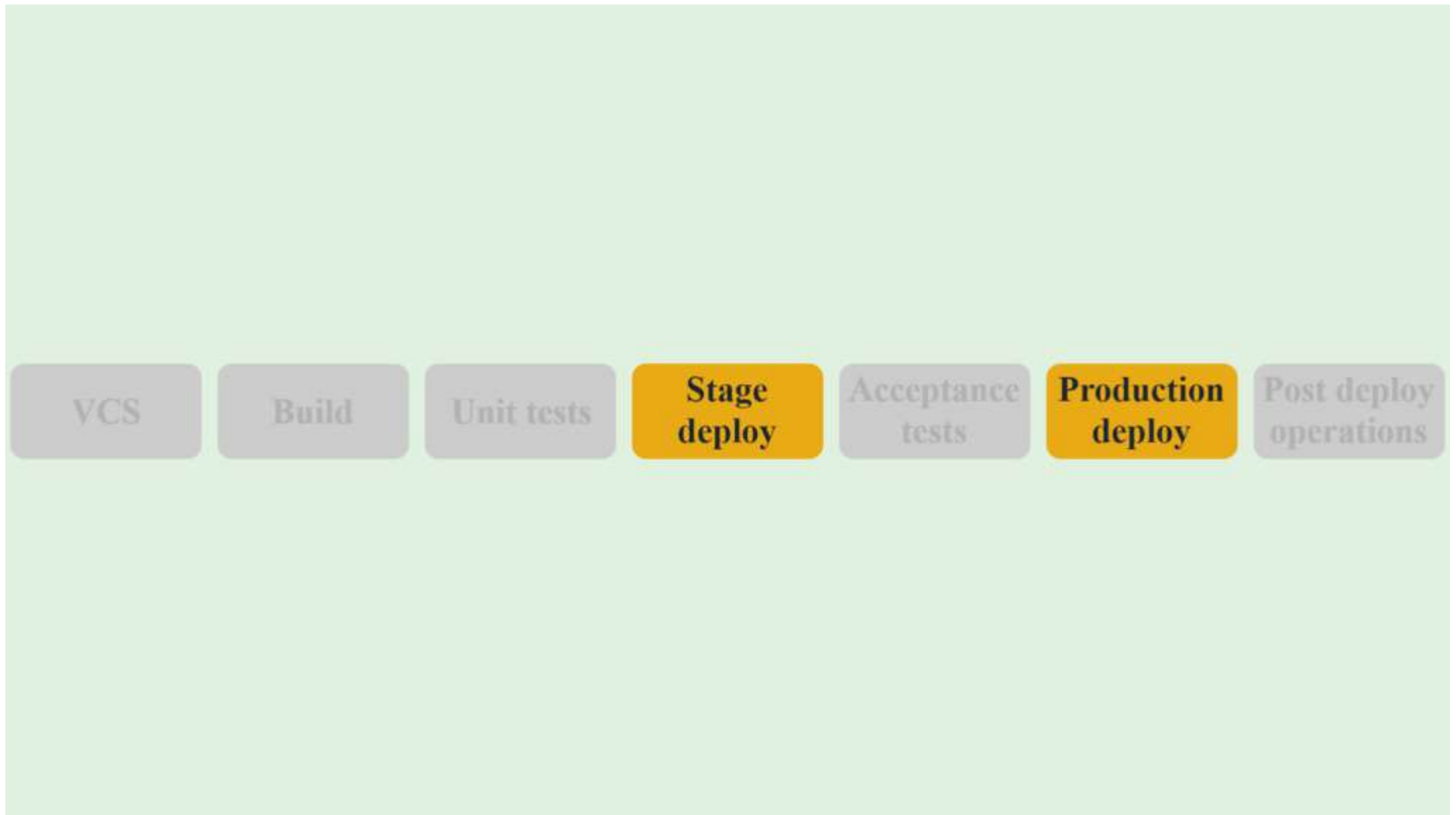
CI/CD конвейер



CI/CD конвейер









Octopus Deploy

<https://octopus.com/docs>

CI, CD или CI/CD?

20

Continuous integration



Continuous delivery



Continuous deployment



Что представляет из себя CI сервер?

24





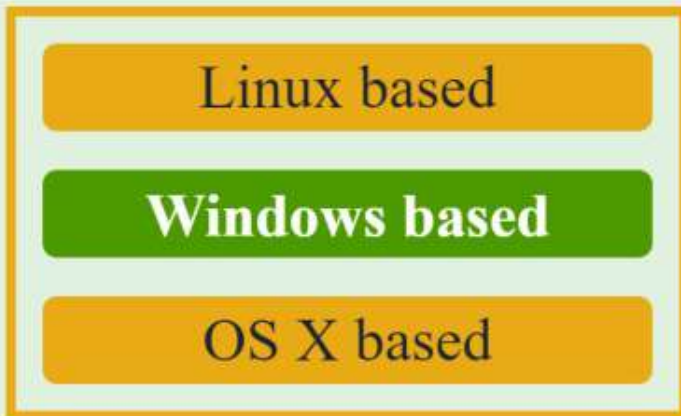




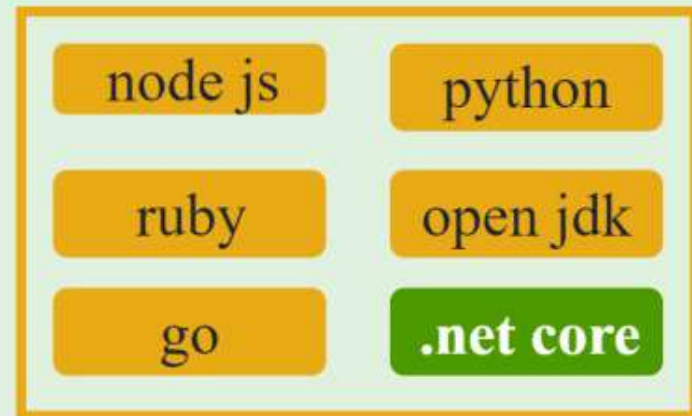
Честные билды

26

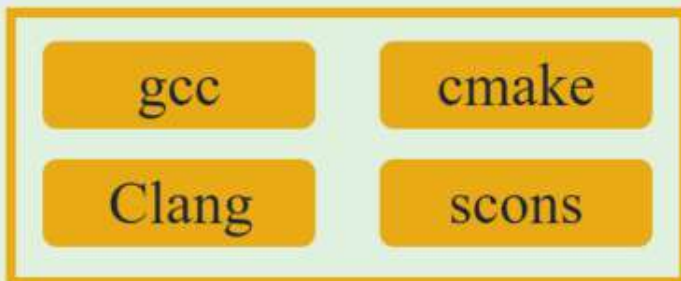
Environments



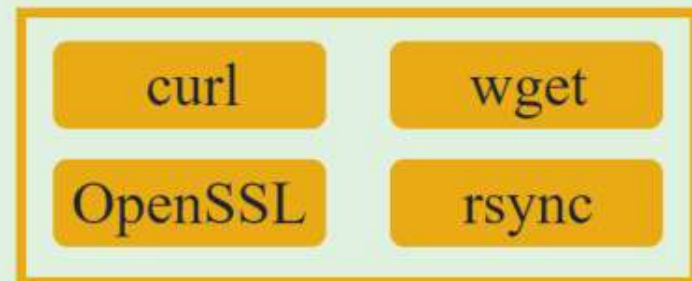
Runtimes



Build tools & compilers

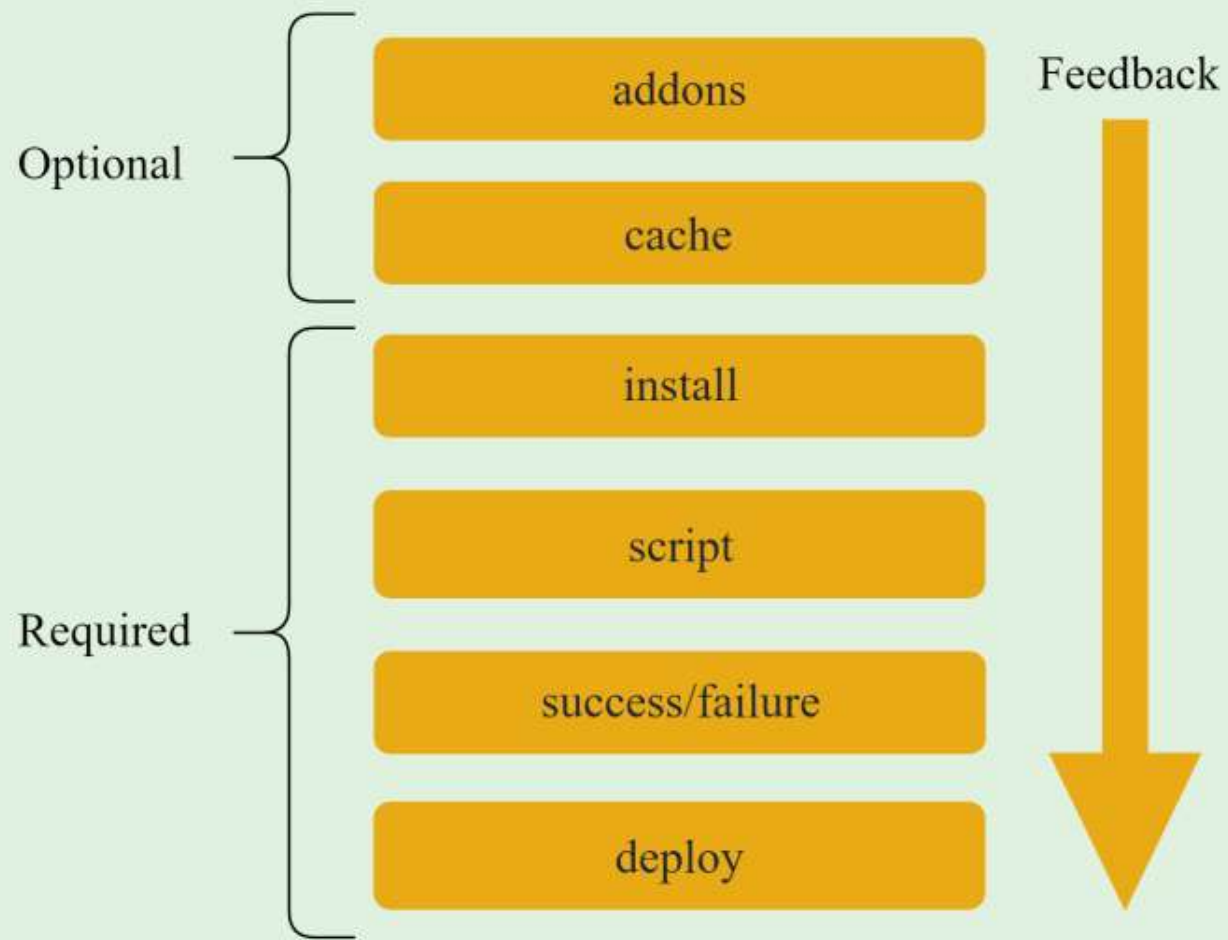


Networking tools



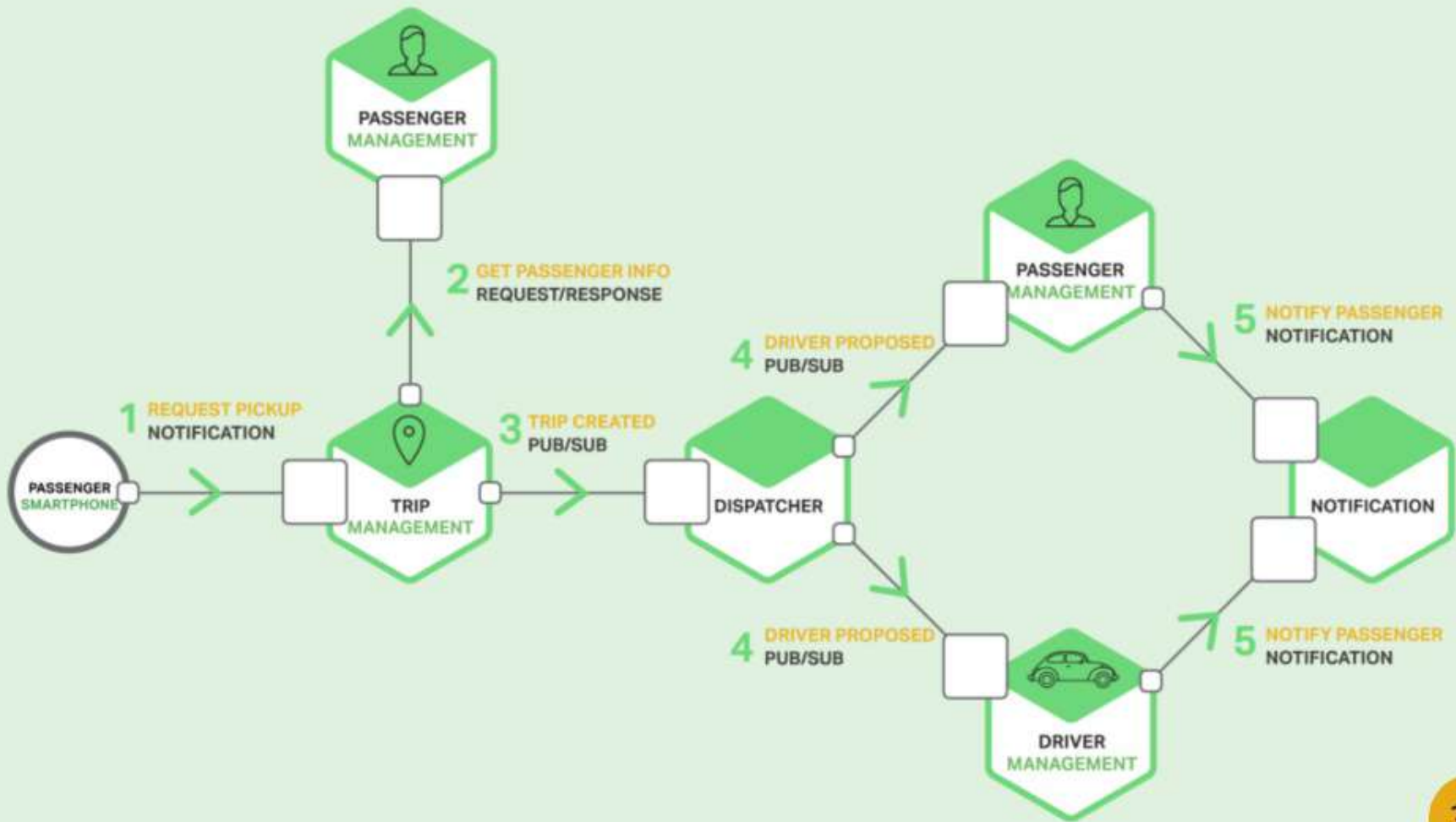
Build стадии

28



Архитектура просит CI/CD

30



- 1 Codebase**
One codebase tracked in revision control, many deploys
- 2 Dependencies**
Explicitly declare and isolate dependencies
- 3 Config**
Store config in the environment
- 4 Backing services**
Treat backing services as attached resources
- 5 Build, release, run**
Strictly separate build and run stages
- 6 Processes**
Execute the app as one or more stateless processes
- 7 Port binding**
Export services via port binding
- 8 Concurrency**
Scale out via the process model
- 9 Disposability**
Maximize robustness with fast startup and graceful shutdown
- 10 Env parity**
Keep development, staging, and production as similar as possible
- 11 Logs**
Treat logs as event streams
- 12 Admin Processes**
Run admin/management tasks as one-off processes

<https://12factor.net/>

33

1**Codebase**

One codebase tracked in revision control, many deploys

2**Dependencies**

Explicitly declare and isolate dependencies

3**Config**

Store config in the environment

4**Backing services**

Treat backing services as attached resources

5**Build, release, run**

Strictly separate build and run stages

6**Processes**

Execute the app as one or more stateless processes

7**Port binding**

Export services via port binding

8**Concurrency**

Scale out via the process model

9**Disposability**

Maximize robustness with fast startup and graceful shutdown

10**Env parity**

Keep development, staging, and production as similar as possible

11**Logs**

Treat logs as event streams

12**Admin Processes**

Run admin/management tasks as one-off processes

<https://12factor.net/>

33

! dotnet.yaml x

```
1 language: csharp
2 dist: trusty
3 mono: none
4 dotnet: 2.1
5
6 before_install:
7   - dotnet restore
8
9 script:
10  - dotnet build
11  - dotnet test ./Test.csproj
12
13 deploy:
14   provider: azure_web_apps
15   username: $AZURE_USER
16   password: $AZURE_PASSWORD
17   site: $AZURE_WEB_APP
18
19
```

! npm.yaml x

```
1 language: node_js
2 sudo: required
3 dist: trusty
4 node_js:
5   - '7.7.4'
6
7 before_script:
8   - npm install
9
10 script:
11  - npm run test -- --watch=false
12  - npm run e2e
13  - npm run build;
14
15 deploy:
16   provider: azure_web_apps
17   username: $AZURE_USER
18   password: $AZURE_PASSWORD
19   site: $AZURE_WEB_APP
```

! go.yaml x

```
1 go:
2   - 1.8
3
4 before_script:
5   - sudo apt-get install -qq sshpass
6
7 script:
8   - go test -v
9   - go build
10
11 after_success:
12   - sshpass -p $SSH_PASS scp -o stricthostkeychecking=no ...
13   - sshpass -p $SSH_PASS ssh -o StrictHostKeyChecking=no ...
14
15 deploy:
16   provider: azure_web_apps
17   username: $AZURE_USER
18   password: $AZURE_PASSWORD
19   site: $AZURE_WEB_APP
```

```
! docker.yaml x
1  sudo: required
2
3  services:
4    - docker
5
6  script:
7    - docker login -u _ --password=$HEROKU_API_KEY registry.heroku.com
8    - docker build -t herokuimage .
9
10 deploy:
11   - provider: script
12     script:
13       docker tag herokuimage registry.heroku.com/$HEROKU_APP_NAME/web;
14       docker push registry.heroku.com/$HEROKU_APP_NAME/web;
15       heroku container:release web --app $HEROKU_APP_NAME
```

Dev

```
/ docker.yml ✕
1 sudo: required
2
3 services:
4   - docker
5
6 script:
7   - docker login -u _ --password=$HEROKU_API_KEY registry.heroku.com
8   - docker build -t herokuimage .
9
10 deploy:
11   - provider: script
12     script:
13       docker tag herokuimage registry.heroku.com/$HEROKU_APP_NAME/web;
14       docker push registry.heroku.com/$HEROKU_APP_NAME/web;
15       heroku container:release web --app $HEROKU_APP_NAME
```

Test

```
/ docker.yml ✕
1 sudo: required
2
3 services:
4   - docker
5
6 script:
7   - docker login -u _ --password=$HEROKU_API_KEY registry.heroku.com
8   - docker build -t herokuimage .
9
10 deploy:
11   - provider: script
12     script:
13       docker tag herokuimage registry.heroku.com/$HEROKU_APP_NAME/web;
14       docker push registry.heroku.com/$HEROKU_APP_NAME/web;
15       heroku container:release web --app $HEROKU_APP_NAME
```

Stage

```
/ docker.yml ✕
1 sudo: required
2
3 services:
4   - docker
5
6 script:
7   - docker login -u _ --password=$HEROKU_API_KEY registry.heroku.com
8   - docker build -t herokuimage .
9
10 deploy:
11   - provider: script
12     script:
13       docker tag herokuimage registry.heroku.com/$HEROKU_APP_NAME/web;
14       docker push registry.heroku.com/$HEROKU_APP_NAME/web;
15       heroku container:release web --app $HEROKU_APP_NAME
```

Production

```
/ docker.yml ✕
1 sudo: required
2
3 services:
4   - docker
5
6 script:
7   - docker login -u _ --password=$HEROKU_API_KEY registry.heroku.com
8   - docker build -t herokuimage .
9
10 deploy:
11   - provider: script
12     script:
13       docker tag herokuimage registry.heroku.com/$HEROKU_APP_NAME/web;
14       docker push registry.heroku.com/$HEROKU_APP_NAME/web;
15       heroku container:release web --app $HEROKU_APP_NAME
```


Конвейер выступления

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Demo

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Users

Meetings



Philipp Morrisson

CEO at Xiaomi



Danny Marko

QA engineer at Xiaomi



Christian Whittaker

Developer at Xiaomi



Yoel Ortega

Developer at Xiaomi



Chris Cyborg

Lead developer at Xiaomi

Xaomi customer meeting (Philipp Morrisson)

Starts at:

Duration:

[Go to meeting](#)

Xaomi employee introduction (Philipp Morrisson)

Starts at:

Duration:

[Go to meeting](#)

Xaomi customer demo (Philipp Morrisson)

Starts at:

Duration:

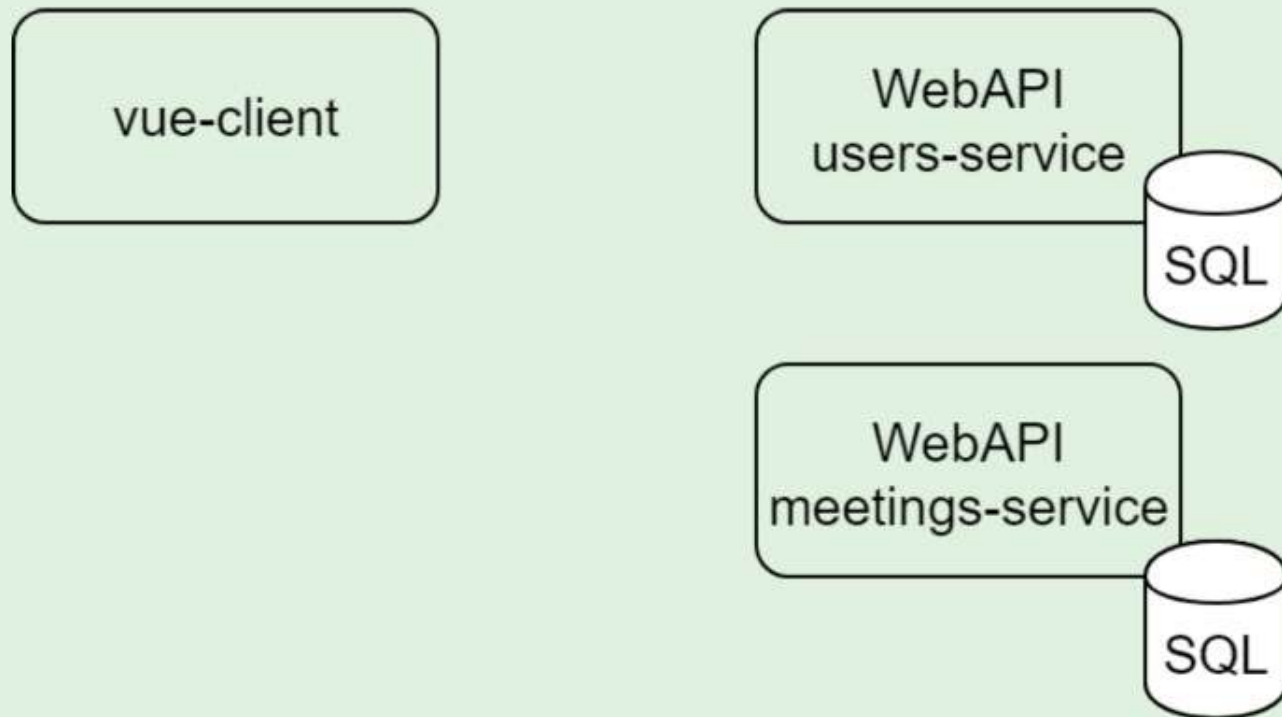
[Go to meeting](#)

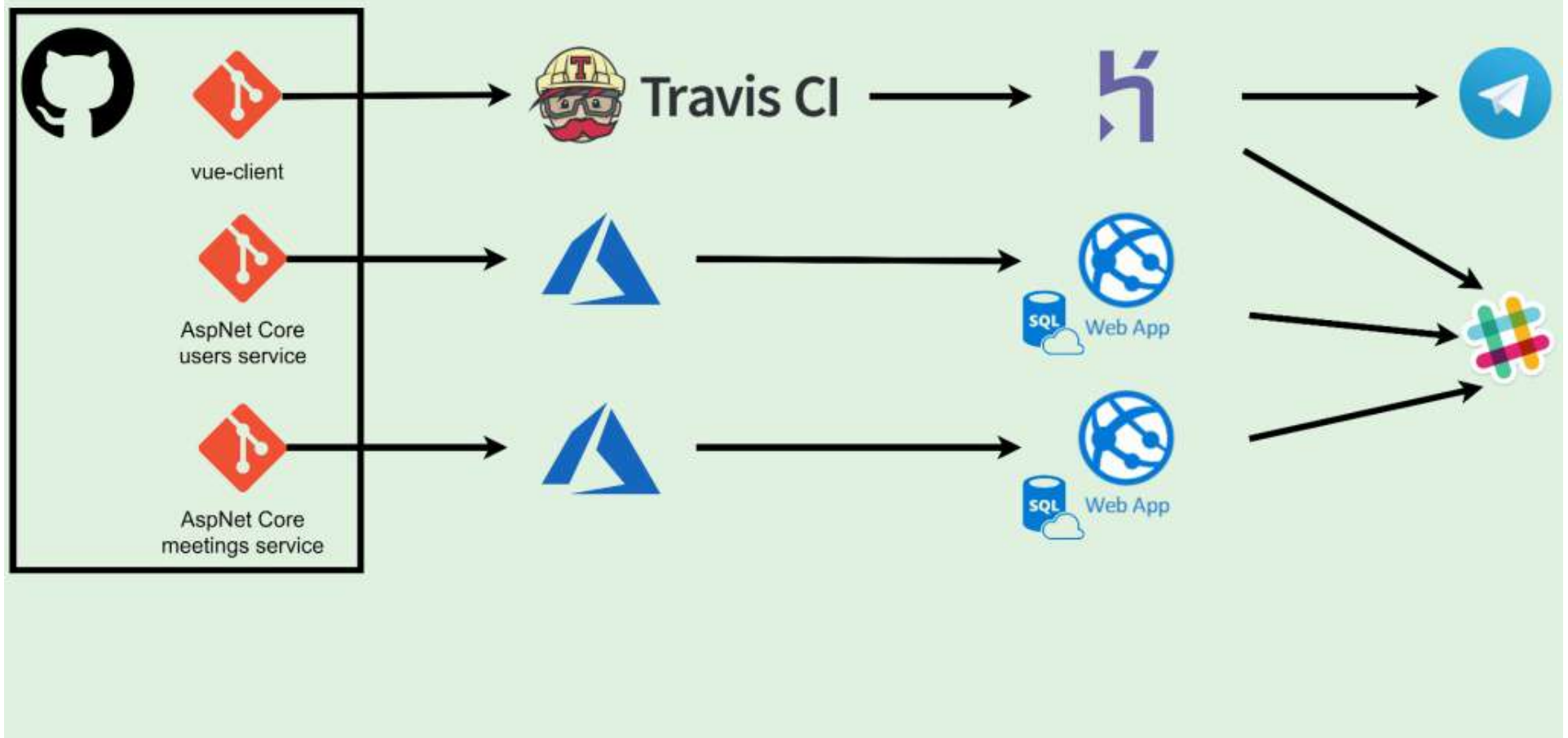
Xaomi team Daily SU (Philipp Morrisson)

Starts at:

Duration:

[Go to meeting](#)





Конвейер выступления

Введение

Мотивация

Кейсы

CI/CD

Демо

Итоги



Итого

- Автоматизируем рутинные процессы;
- Не пренебрегайте тестами - это и есть CI (!!!);
- Быстрая доставка не менее важна;
- Настройка CI/CD - быстро и (не)дорого;
- Многообразие инструментов.

Начните с простого

```
! .travis.yml •
1  language: csharp
2  mono: none
3  dotnet: 2.1
4  before_install:
5  | - dotnet restore
6  script:
7  | - dotnet build
8  | - dotnet test ./project/tests.csproj
9
10 deploy:
11 | provider: script
12 | script: dotnet nuget push src/project/*.nupkg --api-key $NUGET_API_KEY
13 | on:
14 |   branch: master
15
16 email:
17 | - ddydeveloper@gmail.com
```



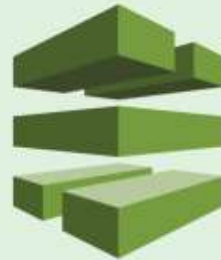
CI  CD

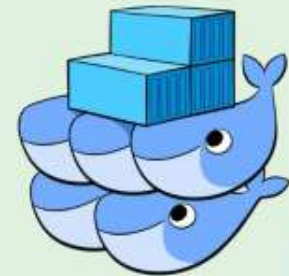
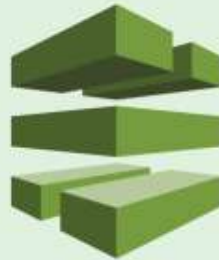


Jenkins

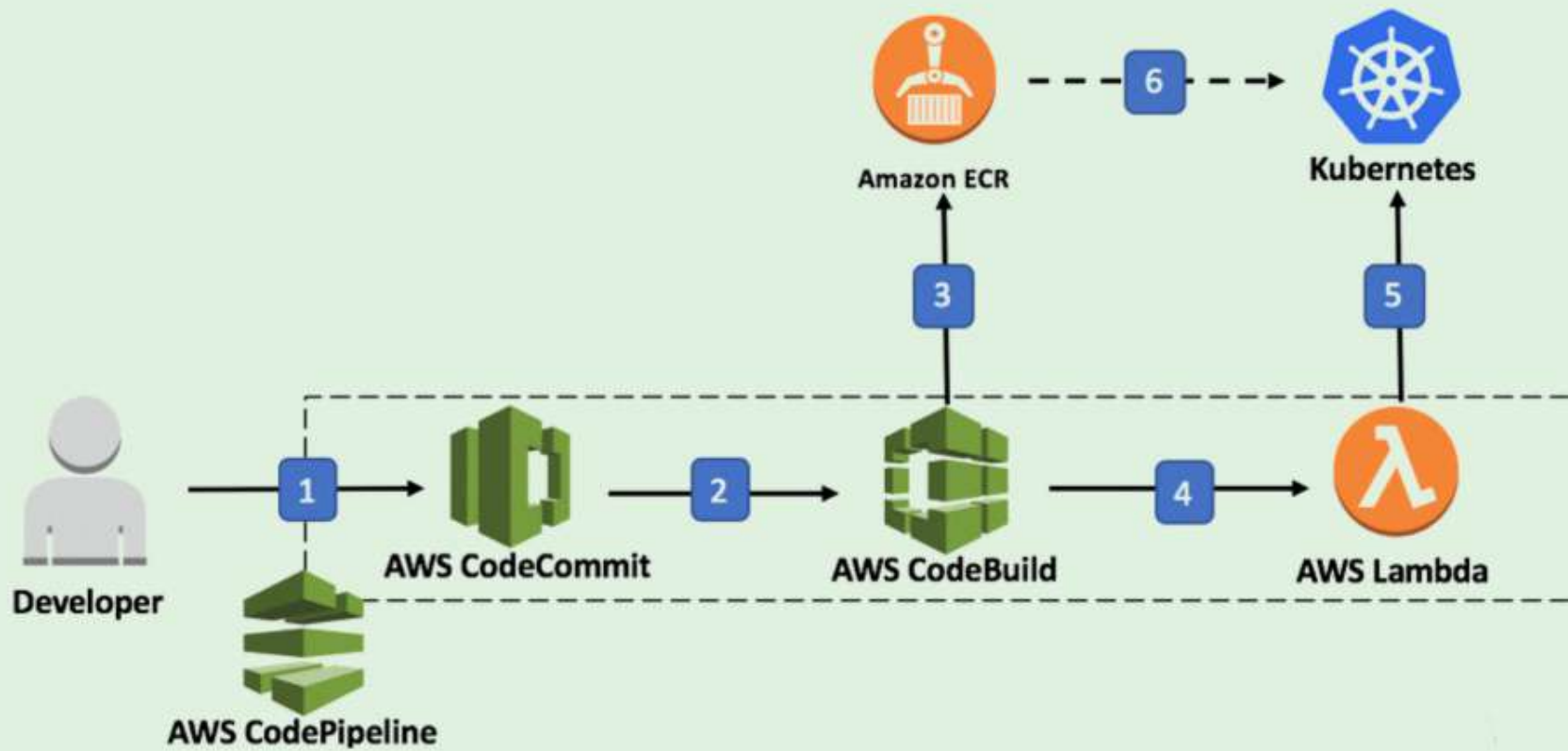


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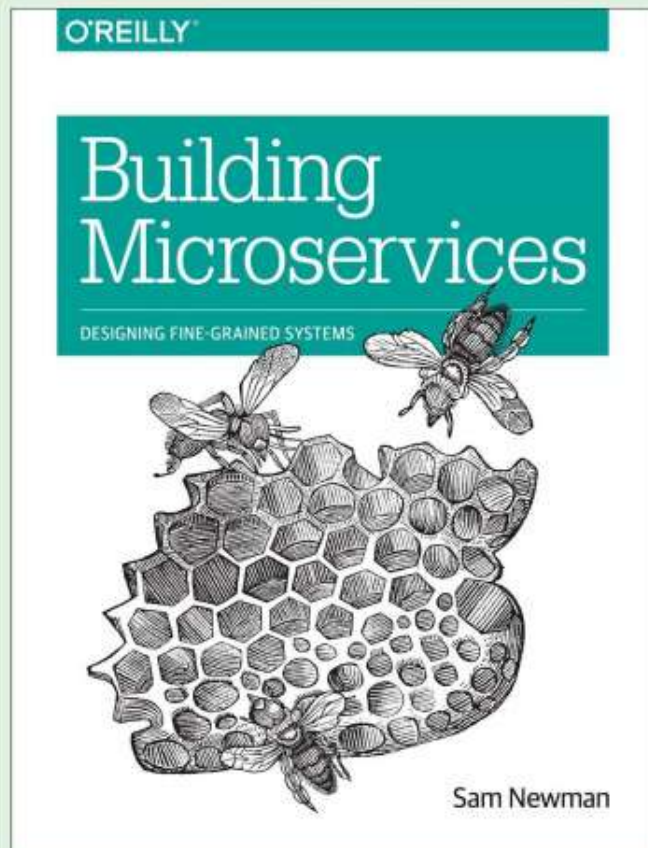


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Ссылки

- <https://www.atlassian.com/continuous-delivery>
- <https://docs.gitlab.com/ee/ci/>
- <https://www.udemy.com/docker-and-kubernetes-the-complete-guide>
- <https://www.youtube.com/watch?v=G3nELxmECd8&t=380s>
- <https://github.com/ddydeveloper?tab=repositories>



- <https://www.amazon.com/Building-Microservices-Designing-Fine-Grained-Systems/dp/1491950358>

Спасибо за внимание!

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Конвейер выступления

Введение

Мотивация

Кейсы

CI/CD

Демо

Итоги

