

Integration of Coverlet tool with Visual Studio

Source:

<https://medium.com/@shalinds/tdd-100-code-coverage-f31d07e2e3c>

Step1:-

Check these packages are already installed in your test project if it is not then please install these packages.

Packages:

- Coverlet.collector
- Coverlet.msbuild
- ReportGenerator

Note: Please install these 3 packages using Nuget in visual studio

After installing all packages there is two ways to report generation

Please follow 2nd way first if it is not works then do 1st way

Way1: in terminal

Step1:-

Open terminal in visual studio and just move to test project folder using this command: `cd path name`

So now you are in the test project folder.

Run this command in Visual Studio's terminal

```
dotnet test CoverletSample.Test (here you need to  
specify the test project name)  
dotnet test /p:CollectCoverage=true ^  
/p:CoverletOutputFormat=opencover ^  
/p:CoverletOutput=" ./coverage/Data.opencover.xml"
```

Like this:

```
Developer PowerShell
+ Developer PowerShell | [Icon] [Icon] [Icon]
\TestingAndCalibrationLabs.Web.UI.Views.dll
TestingAndCalibrationLabs.Tests -> C:\Shreenidhi\TestingAndCalibrationLabs\TestingAndCalibrationLabs\bin\Debug\netcoreapp3.1\TestingAndCalibrationLabs.Tests.dll
Test run for C:\Shreenidhi\TestingAndCalibrationLabs\TestingAndCalibrationLabs\bin\Debug\netcoreapp3.1\TestingAndCalibrationLabs.Tests.dll (.NETCoreApp,Version=v3.1)
Microsoft (R) Test Execution Command Line Tool Version 17.1.0
Copyright (c) Microsoft Corporation. All rights reserved.

Starting test execution, please wait...
A total of 1 test files matched the specified pattern.

Passed! - Failed: 0, Passed: 4, Skipped: 0, Total: 4, Duration: 232 ms - TestingAndCalibrationLabs.Tests.dll (netcoreapp3.1)

Calculating coverage result...
Generating report '..\coverage\Data.opencover.xml'

+-----+-----+-----+-----+
| Module | Line | Branch | Method |
+-----+-----+-----+-----+
| TestingAndCalibrationLabs.Business | 10.71% | 0% | 21.62% |
+-----+-----+-----+-----+
| TestingAndCalibrationLabs.Web.UI | 27.32% | 15.38% | 38.46% |
+-----+-----+-----+-----+
| TestingAndCalibrationLabs.Web.UI.Views | 0% | 0% | 0% |
+-----+-----+-----+-----+

+-----+-----+-----+-----+
| | Line | Branch | Method |
+-----+-----+-----+-----+
| Total | 16.31% | 3.63% | 23.07% |
+-----+-----+-----+-----+
| Average | 12.67% | 5.12% | 20.02% |
+-----+-----+-----+-----+
```

Step2:-

Run this command:

```
reportgenerator "-reports:coverage/Data.opencover.xml"
"-targetdir:coverage-report" -reporttypes:HTML;
```

Output:-

```
PS C:\Shreenidhi\TestingAndCalibrationLabs\TestingAndCalibrationLabs> reportgenerator "-reports:coverage/Data.opencover.xml" "-targetdir:coverage-report" -reporttypes:HTML;
2022-03-20T16:38:21: Arguments
2022-03-20T16:38:21: -reports:coverage/Data.opencover.xml
2022-03-20T16:38:21: -targetdir:coverage-report
2022-03-20T16:38:21: -reporttypes:HTML
2022-03-20T16:38:21: Writing report file 'coverage-report\index.html'
2022-03-20T16:38:21: Report generation took 0.4 seconds
PS C:\Shreenidhi\TestingAndCalibrationLabs\TestingAndCalibrationLabs> |
```

Way 2 in Bat file

Here we are just using same commands in bat file

After installing package we can do this way too

And then please make a bat file with any name with .bat extension

In that file please put this command

```
dotnet test /p:CollectCoverage=true ^
/p:CoverletOutputFormat=opencover ^
/p:CoverletOutput="./coverage/Data.opencover.xml" ^
/p:Exclude="[nunit.*]*,[TestingAndCalibrationLabs.Web.UI.*]*\"

dotnet
%userprofile%\ .nuget\packages\reportgenerator\4.4.7\tools\netcor
eapp3.0\ReportGenerator.dll ^
```

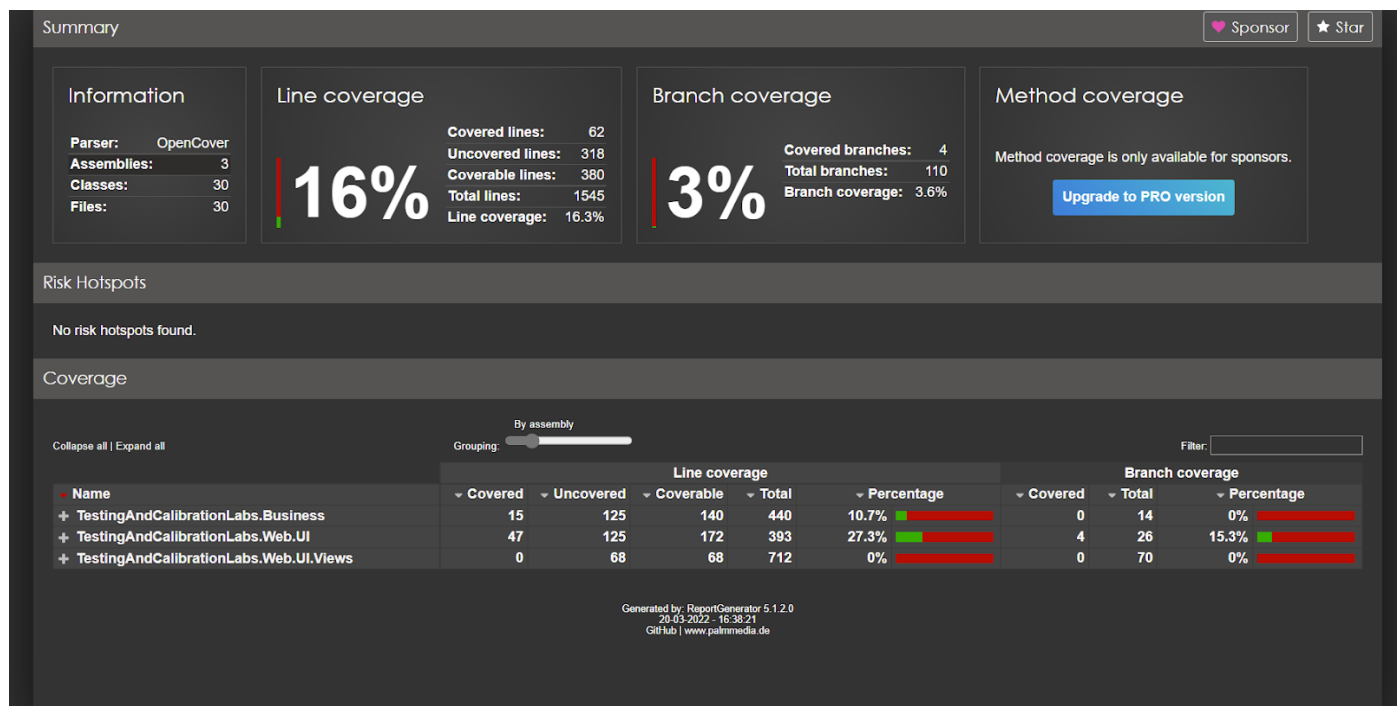
```
reportgenerator "-reports:coverage/Data.opencover.xml"
"-targetdir:coverage-report" -reporttypes:HTML;
```

```
start .\coverage-report\index.htm\
```

Save and run this file

This will run the index.htm file within coverage-report folder

Final output:--



For excluding projects we need to use this command

```
dotnet test /p:CollectCoverage=true ^  
/p:CoverletOutputFormat=opencover ^  
/p:CoverletOutput=". /coverage/Data.opencover.xml" ^  
/p:Exclude="\[nunit.*]*,[TestingAndCalibrationLabs.Web.UI.*]*\"
```

This will Excludes `TestingAndCalibrationLabs.Web.UI.Views` from code coverage

