

# Build an EF and ASP.NET Core 2.1 App HOL

Welcome to the Build an Entity Framework Core 2.1 and ASP.NET Core 2.1 Application in a Day Hands-On Lab. Prior to starting the lab, you must have Visual Studio 2017 15.8+, the .NET Core 2.1+ SDK, .NET Core 2.1+ runtime, and SQL Server 2014+ (Express or better) installed. This lab walks you through the installation process.

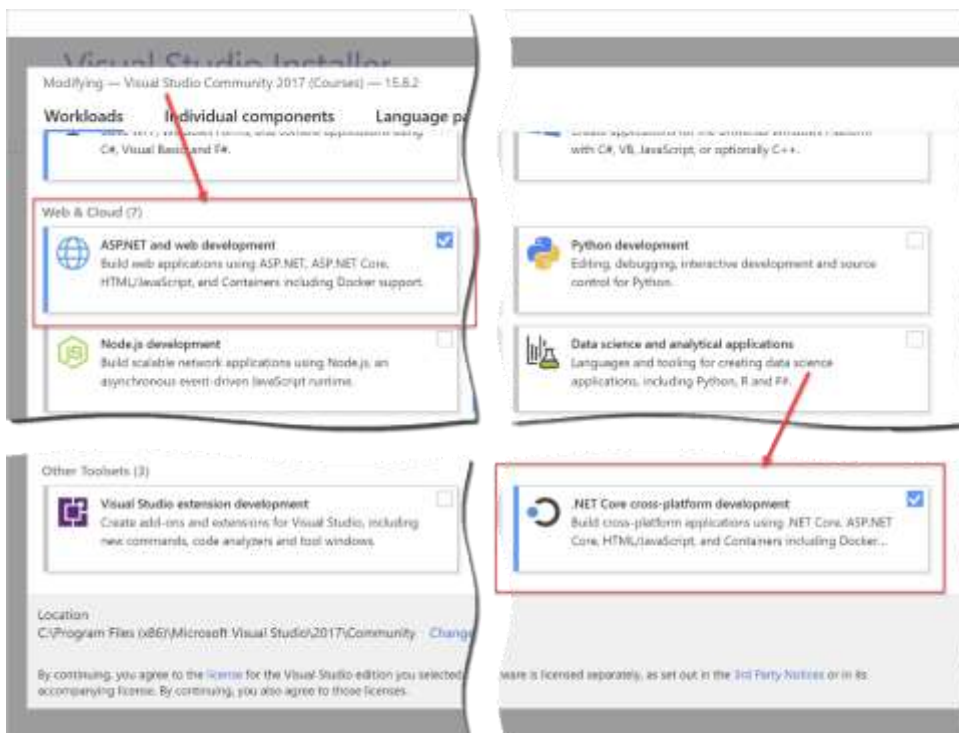
## Part 0: Permissions

You must have admin permissions on your machine to complete this hands-on lab.

## Part 1: Installing the Prerequisites

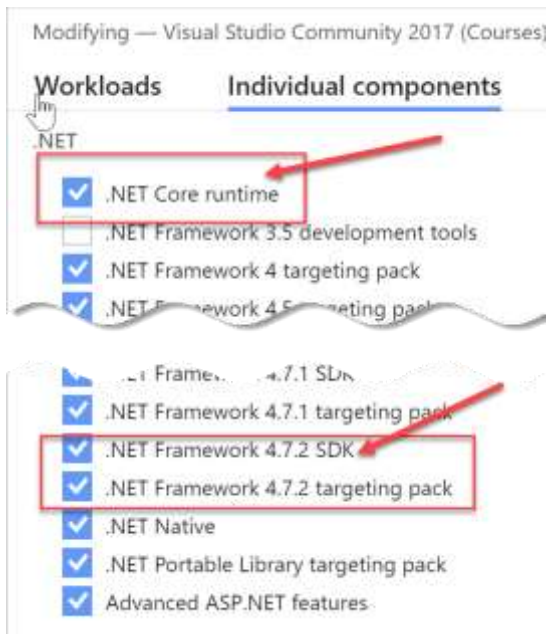
### Step 1: Download and install Visual Studio 2017 15.8+

- 1) Download Visual Studio 2017 15.8+ (any edition) from the Visual Studio home page:  
<https://www.visualstudio.com/en-us/visual-studio-homepage-vs.aspx>
  - a) The Community Edition is free, and has everything you need to complete this Hands-On Lab
- 2) Start the installer
  - a) The new installation experience has separate workloads based on what type of work you intend to do. For this lab, select the **“ASP.NET and web development”** workload as well as the **“.NET Core cross-platform development”** workloads.



- b) Select the Individual Components menu at the top of the installation screen, and check:
  - i) .NET Core runtime

- ii) .NET Framework 4.7.2 SDK
- iii) .NET Framework 4.7.2 targeting pack



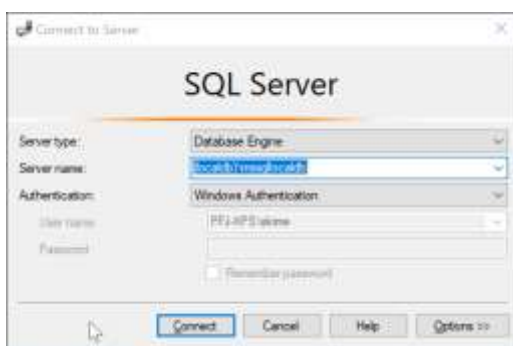
## Step 2: Download/Install SQL Server Management Studio (SSMS)

- 1) Download and install SQL Server Management Studio 17.8.1 from <https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms?view=sql-server-2017>
  - a) This is a free tool from Microsoft

## Step 3: Confirm installation of LocalDb

LocalDb is a special version of SQL Server Express that is installed with Visual Studio 2017

- 1) Open SQL Server Management Studio
- 2) When prompted to connect to a database enter **(localdb)\mssqllocaldb** for the server name, and **Windows Authentication**, like this:



- 3) If you can connect, open a new query window and enter:  
Select @@version

- 4) This returns the version of SQL Server that is installed as (localdb). If it is 2014 or 2016, no changes need to be made in the lab. If you are running 2017, you will need to update the connection strings in the subsequent labs (this is covered later)
- 5) If you chose to use SQL Server LocalDb 2017, you need to install the latest cumulative update for SQL Server 2017 (at least CU6 or greater). The install for CU10 is located here:

<https://www.microsoft.com/en-us/download/details.aspx?id=56128>

## Step 4: [Optional] Download and install the SQL Server 2016 Express

- 1) Download the SQL Server 2016 Express Edition from <https://www.microsoft.com/en-us/download/details.aspx?id=54284>
- 2) NOTE: If you choose to use SQL Server 2017 Express, you will need to update the connection strings in the subsequent labs (this is covered later) and install the latest Cumulative Update located here:

<https://www.microsoft.com/en-us/download/details.aspx?id=56128>

## Step 5: Install/Confirm .NET Core Runtime and SDK

- 1) Download and install the latest .NET Core SDK and Runtime from <http://dot.net>.
- 2) Open a command window and type:

where dotnet

- 3) After unpacking some files, it should respond with:

C:\Program Files\dotnet\dotnet.exe

- 4) You might also see the following (not required for this course):

C:\Program Files (x86)\dotnet\dotnet.exe

- 5) Check the version of the .NET Core SDK and Command Line Interface (CLI) by entering:

dotnet --info

- ⌘ The response will be (at the time of this writing):

.NET Core SDK (reflecting any global.json):

Version: 2.1.401

Commit: 91b1c13032

Runtime Environment:

OS Name: Windows

OS Version: 10.0.17134

OS Platform: Windows

RID: win10-x64

Base Path: C:\Program Files\dotnet\sdk\2.1.401\

Host (useful for support):

Version: 2.1.3-servicing-26724-03

Commit: 124038c13e

//SDKs and Runtimes omitted for brevity

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# Summary

These are all of the tools you need to complete this Hands-on Lab.