

# 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 15.7, the .NET Core 2.1 SDK, .NET Core 2.1 runtime, and SQL Server 2016 (Express or better) installed. This lab walks you through the installation process.

All labs and files are available at [https://github.com/skimedid/dotnetcore\\_hol](https://github.com/skimedid/dotnetcore_hol).

## Part 0: Installing the Prerequisites

### Step 1: Download and install Visual Studio 2017 15.7+ Community Edition

- 1) Download Visual Studio 2017 15.7+ (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 4.7.1 SDK
    - iii) .NET Framework 4.7.1 targeting pack

### Step 2: Confirm the installation of .NET Core

- 1) Open a command window and type:  
where dotnet
- 2) After unpacking some files, it should respond with:  
C:\Program Files\dotnet\dotnet.exe  
[Optionally] C:\Program Files (x86)\dotnet\dotnet.exe
- 3) Check the version of the .NET Core SDK and Command Line Interface (CLI) by entering:  
dotnet --info
- 4) The response will be (at the time of this writing):  
.NET Core SDK (reflecting any global.json):  
Version: 2.1.300  
Commit: adab45bf0c

Runtime Environment:  
OS Name: Windows  
OS Version: 10.0.17134

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OS Platform: Windows  
RID: win10-x64  
Base Path: C:\Program Files\dotnet\sdk\2.1.300\

Host (useful for support):  
Version: 2.1.0  
Commit: caa7b7e2ba

//SDKs and Runtimes omitted for brevity

## Step 3: 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 are using SQL Server 2017 Express, there is a known bug where you must add the following to the connection string:

AttachDbFileName=|DataDirectory|\<DatabaseFileName>.mdf

## Summary

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

## Next steps

In the next part of this tutorial series, you will create the solution and projects for this hands-on lab.