

# Build an EF and ASP.NET Core App H

Welcome to the Build an Entity Framework Core and ASP.NET Core Application Lab. This lab walks you through creating the projects and adding/updating the N

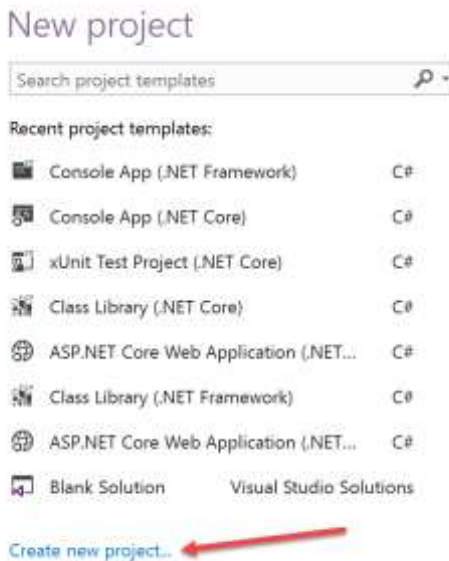
Prior to starting this lab, you must have completed Lab 0, Installing the Prerequis

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

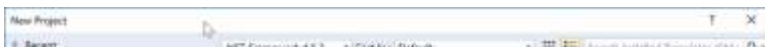
## Part 1: Creating the Solution and Projects

### Step 1: Create the ASP.NET Core project and solution

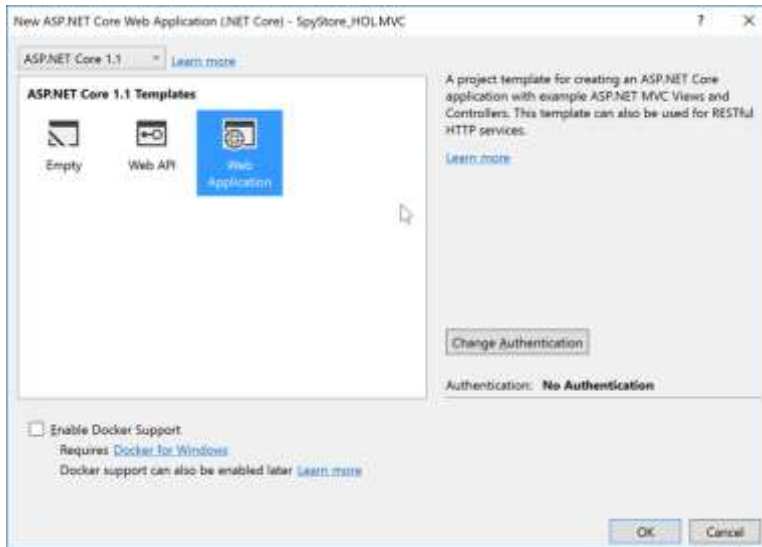
- 1) From the Start Page, select Create New Project



- 2) Select .NET Core from the templates from the left rail and ASP.NET Core W the center section and name it SpyStore\_HOL.MVC:



- 3) On the next screen, make sure the ASP.NET Core 1.1 templates are selected, Application. Leave the authentication as “No Authentication”, and leave the unchecked.



## Step 2: Create the Models project

- 1) Right click on the solution, and select Add -> New Project
- 2) Select .NET Core from the templates from the left rail and Class Library (.NET Core) from the center section and name it SpyStore\_HOL.Models:



- 3) Delete the Class.cs file.



3) Delete the code from the Main method.

## Step 4: Create the Unit Test project

- 1) Right click on the solution, and select Add -> New Project
- 2) Select .NET Core from the templates from the left rail and xUnit Test Project from the center section and name it SpyStore\_HOL.Tests:



3) Delete the code from the Main method.

## Part 2: Add/Update the NuGet packages

.NET Core is composed of a series of NuGet packages that update faster than the in addition to adding new packages, the existing packages must be updated.

### Step 1: Update the MVC Project

- 5) Open StartUp.cs and comment out the following line in the Configure method:  
`app.UseBrowserLink();`

## Step 2: Update the Models Project

- 1) Right click on the SpyStore\_HOL.Models project, and select Manage NuGet Packages
- 2) Click Updates at the top, and update all packages that need updating.
- 3) Add the Entity Framework Core packages by clicking Browse, then entering `Microsoft.EntityFrameworkCore` in the search box. Select and install `Microsoft.EntityFrameworkCore` and `Microsoft.EntityFrameworkCore.SqlServer`

## Step 3: Update the DAL Project

- 1) Right click on the SpyStore\_HOL.DAL project, and select Manage NuGet Packages
- 2) Click Updates at the top, and update all packages that need updating.
- 3) Install the following packages:  
`Microsoft.EntityFrameworkCore`  
`Microsoft.EntityFrameworkCore.Design`  
`Microsoft.EntityFrameworkCore.Relational`  
`Microsoft.EntityFrameworkCore.Relational.Design`  
`Microsoft.EntityFrameworkCore.SqlServer`  
`Microsoft.EntityFrameworkCore.SqlServer.Design`  
`Microsoft.EntityFrameworkCore.Tools`
- 4) Right click on the SpyStore\_HOL.DAL project, and select Edit SpyStore\_HOL.DAL.csproj  
a) Add the following XML to the project file:

```
<ItemGroup>  
  <DotNetCliToolReference Include="Microsoft.EntityFrameworkCore.Tools.DotNet" Version="1.0.0" />  
</ItemGroup>
```

## Step 4: Update the Unit Test Project

- 1) Right click on the SpyStore\_HOL.Tests project, and select Manage NuGet Packages
- 2) Click Updates at the top, and update all packages that need updating.
- 3) Add the Entity Framework Core packages by clicking Browse, then entering `Microsoft.EntityFrameworkCore` in the search box. Select and install `Microsoft.EntityFrameworkCore` and `Microsoft.EntityFrameworkCore.SqlServer`

## Step 1: Update the MVC Project

- 1) Right click on the SpyStore\_HOL.MVC project, and select Add -> Reference
- 2) Select SpyStore\_HOL.DAL and SpyStore\_HOL.Models

## Step 2: Update the DAL Project

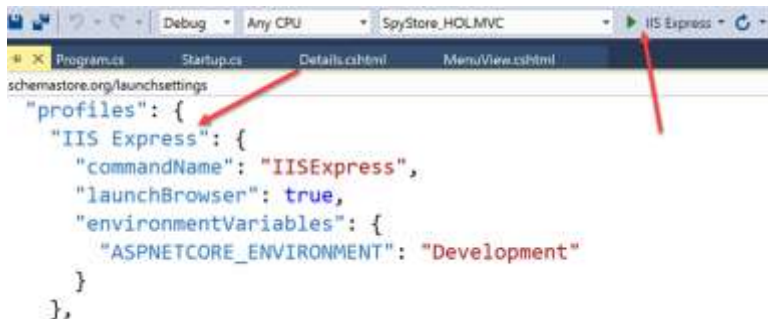
- 1) Right click on the SpyStore\_HOL.DAL project, and select Add -> Reference
- 2) Select SpyStore\_HOL.Models

## Step 3: Update the Tests Project

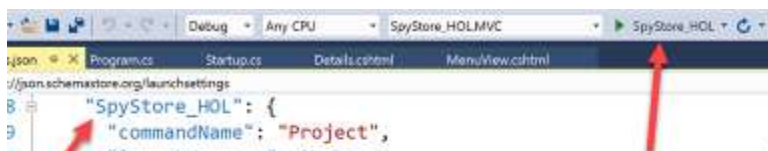
- 1) Right click on the SpyStore\_HOL.Tests project, and select Add -> Reference
- 2) Select SpyStore\_HOL.DAL and SpyStore\_HOL.Models

## Part 4: Running the Application

- 1) Set the MVC project as the Startup Project.
- 2) Examine launchSettings.json under the Properties node in the SpyStore\_HOL.MVC project.
  - a) IIS Express profile controls IIS Express in Visual Studio 2017



- b) SpyStore\_HOL profile controls Kestrel in Visual Studio 2017



# Summary

This lab created all of the projects for the HOL, added the NuGet packages, and references.

## Next steps

In the next part of this tutorial series, you will start to build the data access library Framework Core.