

Setup your Machine

Before you begin to use Angular, you must prepare your development machine. If you are new to Angular, you are going to need the following tools installed on your machine.

- Node.js
- NodeJS Package Manager (npm)
- Angular
- TypeScript (Automatically installed)
- Angular CLI
- ASP.NET Core
- Visual Studio Code
 - Extensions for VS Code
 - Debugger (Chrome, Firefox or Edge)
 - C#

NOTE: If you already have all of these installed on your computer, you may skip ahead to the section "**Create the Sample Project**".

Install Node & NPM

See if you have Node.js and NodeJS Package Manager (npm) on your machine. Drop to a command prompt on your machine and type in the following.

```
npm -v  
node -v
```

You will either see an error, or you will see the version numbers for each.

If you need to install these packages you can download and install these two packages at <https://nodejs.org>. Download and install the "LTS" version, not "Current".

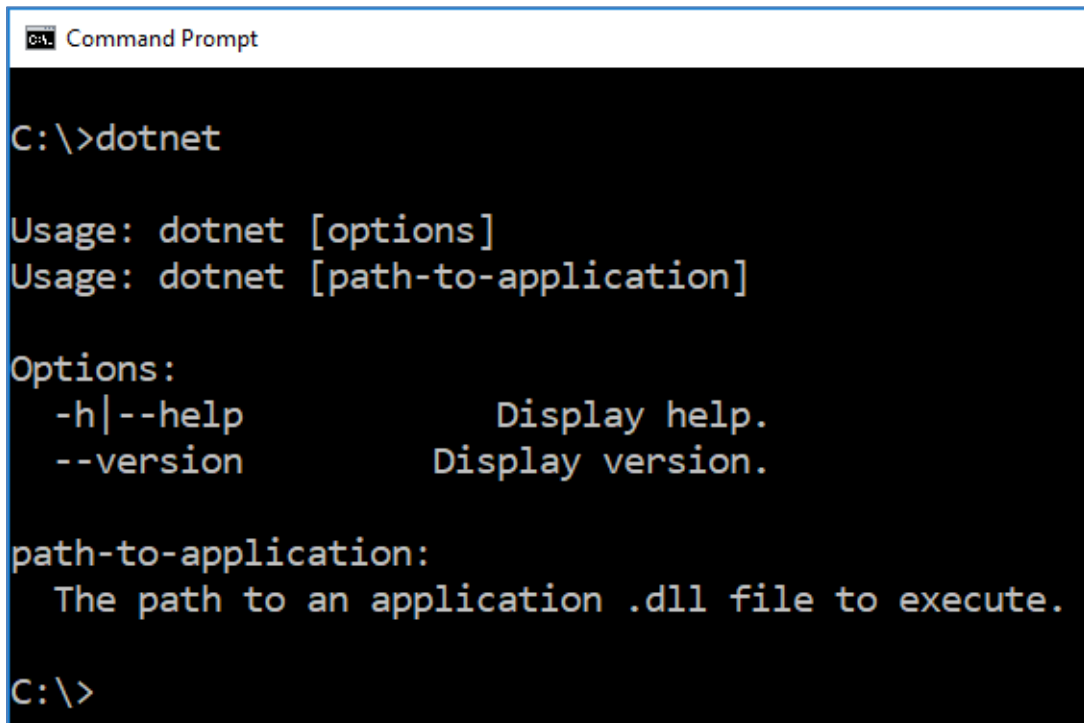
You need at least **node version 6.9.x** and **npm version 3.x.x**.

Install ASP.NET Core

Check to see if you have ASP.NET Core on your machine. Open a command prompt and type in the following:

```
dotnet
```

If you have it installed, you should see something that looks like the following:



```
Command Prompt

C:\>dotnet

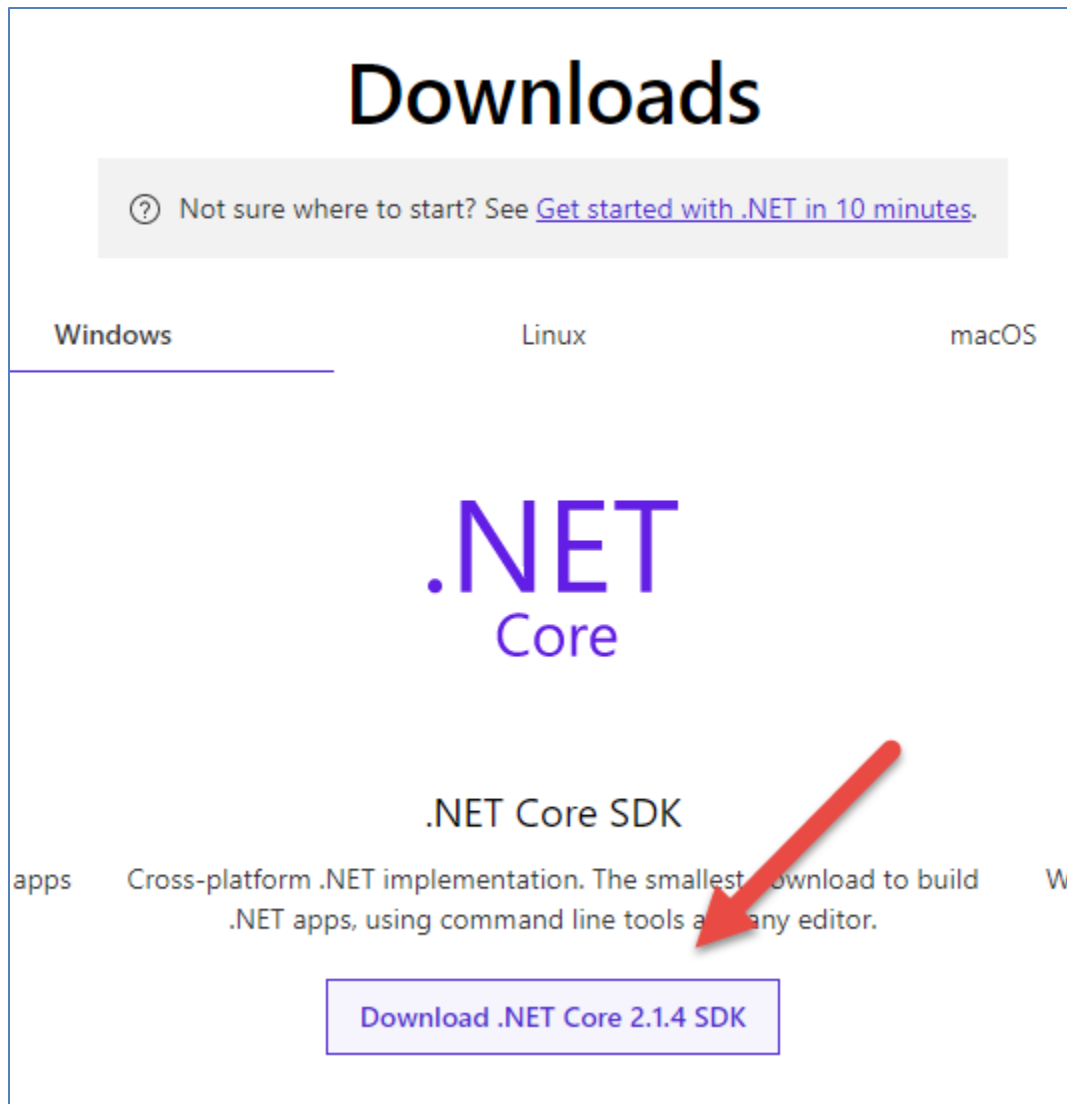
Usage: dotnet [options]
Usage: dotnet [path-to-application]

Options:
  -h|--help           Display help.
  --version           Display version.

path-to-application:
  The path to an application .dll file to execute.

C:\>
```

If you do not have it installed, go to <https://www.microsoft.com/net/download/windows>. On this page select the **Download .NET Core x.x.x SDK** as shown in the following screen shot.



Install Angular CLI

Check to see if you have the Angular CLI installed. Open a command prompt on your machine and check the version of Angular CLI:

```
ng -v
```

After running this command, you will either have an error, or you will see a version number. Unless you have installed this very recently, open a

command prompt and execute the following command to get the latest version of the CLI.

```
npm install -g @angular/cli
```

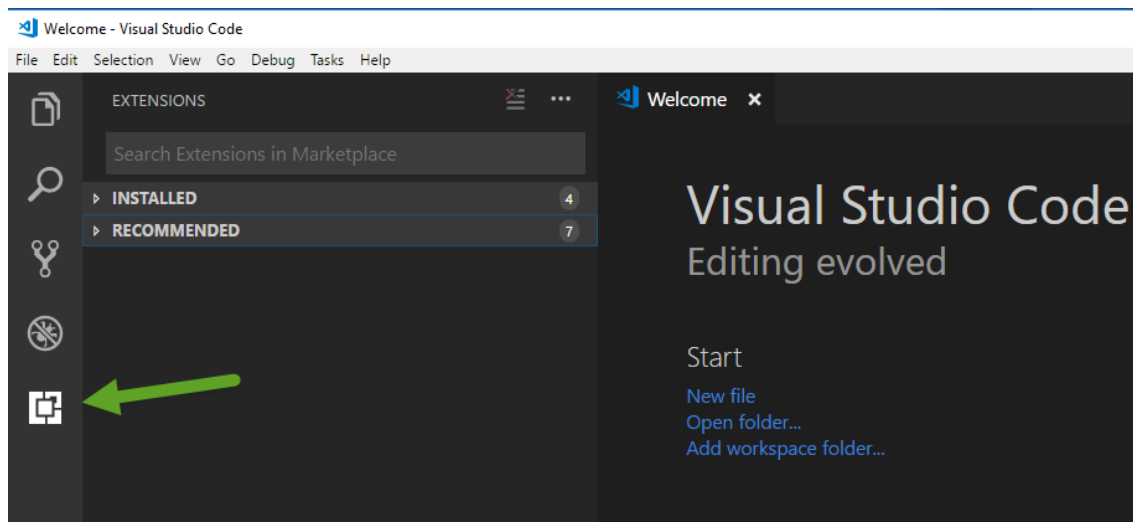
Install Visual Studio Code

Go to <http://code.visualstudio.com> and download and install Visual Studio Code.

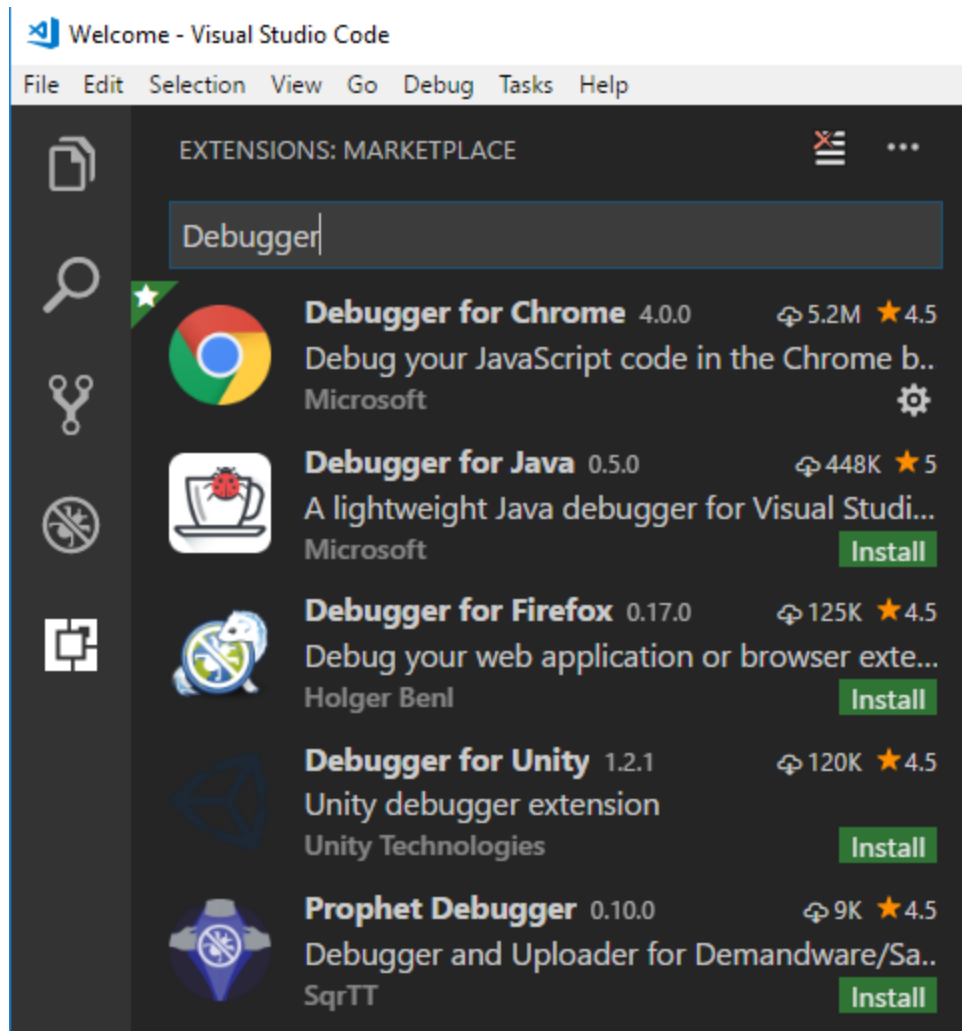
Install Debugger Extension

Let's now install a debugger to use from within VS Code.

Click on the Extensions icon in the Activity Bar.



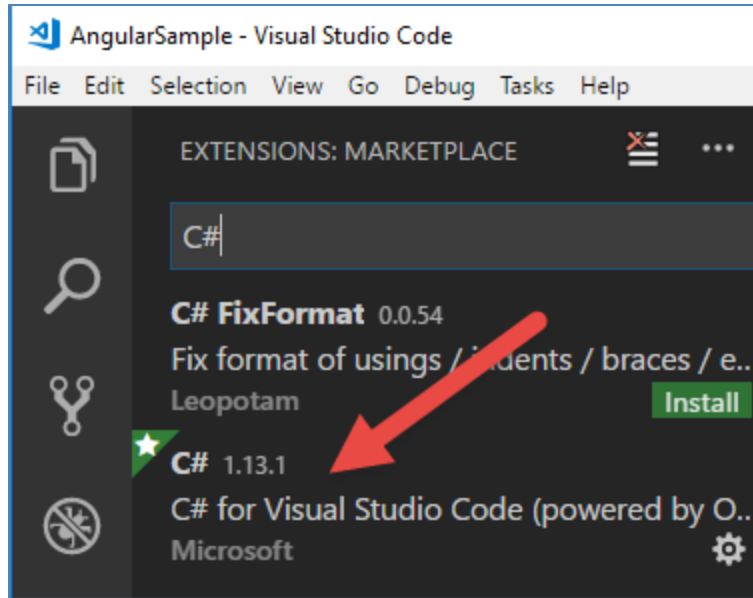
Once you click on the Extensions tab, type “Debugger” into the search box.



You can install debuggers for Chrome, FireFox or Microsoft Edge browsers. Select one and click the Install button.

Install C#

In this course you are going to use .NET Core to create a Web API, so you should install the C# extension for VS Code.

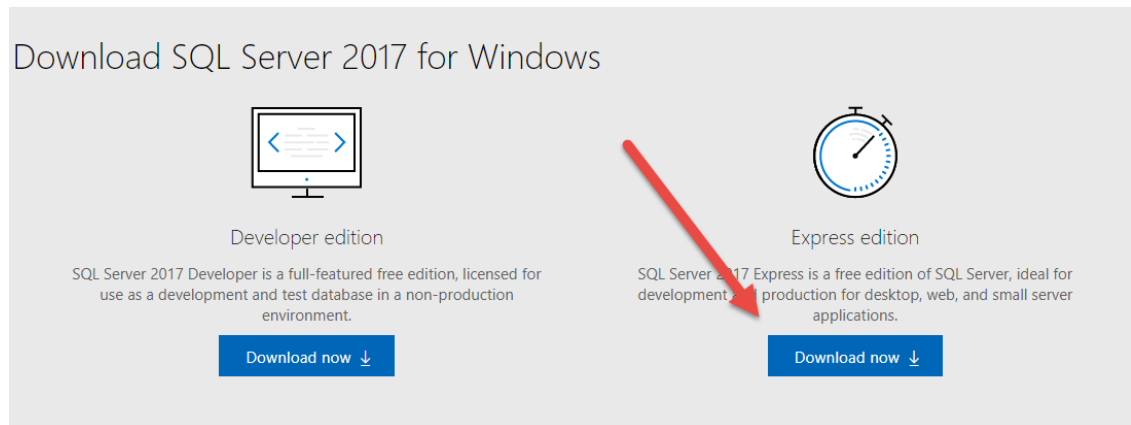


Setup SQL Server

In the sample you download there is a \SqlData folder in which you find a SQL Server Express database named PTC-Pluralsight.mdf. You also find a PTC-Pluralsight.SQL file. You may either create your own PTC-Pluralsight database on your own SQL Server, or use the database supplied.

Getting SQL Server Express

If you want to use the supplied database file, you need to get SQL Server Express. Download it at this URL: <https://www.microsoft.com/en-us/sql-server/sql-server-downloads>. Choose the Express edition as shown below.



During the installation, be sure to select the feature "LocalDB" to be installed.

Create the Sample Project

The following are the instructions to create the sample project to follow along with this course.

Create New Angular Project

Open a command prompt.

Navigate to a hard drive where you place projects. Create a new folder, or use an existing folder.

```
D:  
mkdir PTC  
cd PTC
```

Make a new Angular project using the Angular CLI.

```
ng new PTC --prefix ptc
```

Create new Web API project

Create a new Web API project


```
mkdir PtcApi  
cd PtcApi  
dotnet new webapi
```

Start-up Visual Studio Code

Load the current project in Code

```
code .
```

If you are prompted to restore dependencies by Code, respond **Yes**.

Create a Workspace

You have just loaded the Web API project. Add the Angular project to Code by clicking on the **File | Add Folder to Workspace...** menu.

Locate the PTC\PTC folder and add that folder to Code.

Select **File | Save Workspace As...** from the menu. Give it a name such as **ptc-workspace**.

Add Bootstrap & jQuery

Add Bootstrap and jQuery to the Angular project. Open a command prompt in the PTC project and type in the following command.

```
npm install bootstrap@3 jquery --save
```

Copy Sample Files

You may now copy all files and folders from the downloaded samples into the respective folders where you created these new projects.

Modify Connection String

Open the **\Model\PtcDbContext.cs** file located in the PtcApi project.

Modify the path in the AttachDbFilename attribute to the path where you created these projects.

```
private const string CONN = @"Server=(localdb)\MSSQLLocalDB;  
Database=PTC-Pluralsight;  
AttachDbFilename=D:\Samples\PTC\SqlData\PTC-Pluralsight.mdf;  
MultipleActiveResultSets=true";
```

You should now be ready to start running the application.