

# ASP.NET CORE CRUD WITH ANGULAR2 ANIMATION ,WEB API ,EF & SQL SERVER

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# About Me

- **My Name is Syed Shanu**
- **From Madurai, Tamil Nadu, India**
- **Microsoft MVP**
- **Code Project MVP**
- **Csharp Corner MVP**
- **10+ years of Experience as Software Engineer**
- **Working as a Senior Software Engineer at Zemax Solution ,Seoul ,Korea**



# Session Prerequisites

◆ Visual Studio 2015

◆ SQL Server 2014

## Download Links

1. First, download and install Visual Studio 2015 with Update 3 from this [link](#).
2. Visual Studio 2015 Update 3 from this [link](#).
3. [Download](#) and install .NET Core 1.0.1
4. [Download](#) and install TypeScript 2.0
5. Node.js v4.0 or above. I have installed V6.9.1 ([Download link](#)).
6. Download and install ASP.NET Core Template Pack viz file from this [link](#).



# Agenda

- ◆ **Introduction to ASP.NET Core**
- ◆ **Introduction to Angular2**
- ◆ **Introduction to SQL Server**
- ◆ **Introduction to WEB API**
- ◆ **Entity Framework**
- ◆ **Demo for ASP.NET Core, Angular2 CRUD with Animation using Template Pack, WEB API and EF 1.0.1**

# ASP.NET Core

## ASP.NET 4.6 and ASP.NET Core 1.0

ASP.NET 4.6		ASP.NET Core 1.0	
.NET Framework 4.6		.NET Core 1.0	
.NET framework libraries		.NET core libraries	
Compilers and runtime components (.NET Compiler Platform: Roslyn, C#, VB, F# Languages, RyuJIT, SIMD)			

## ASP.NET Core 1.0



.NET  
Innovation

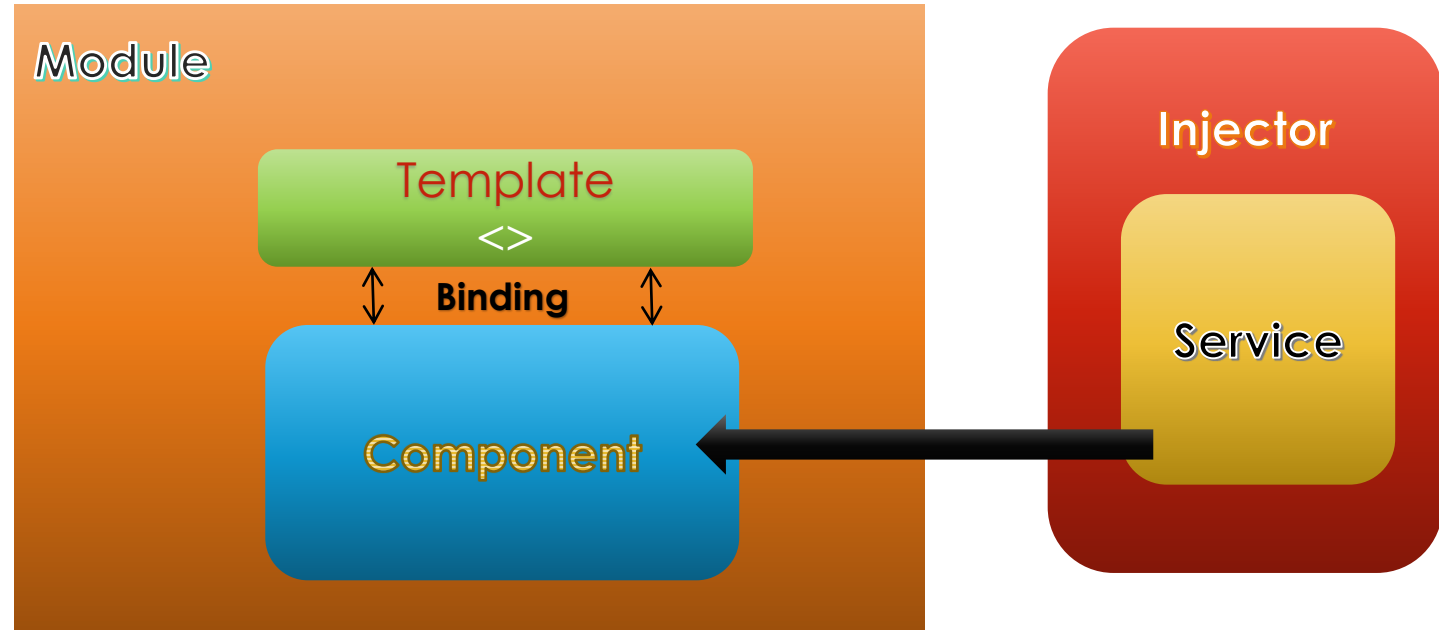
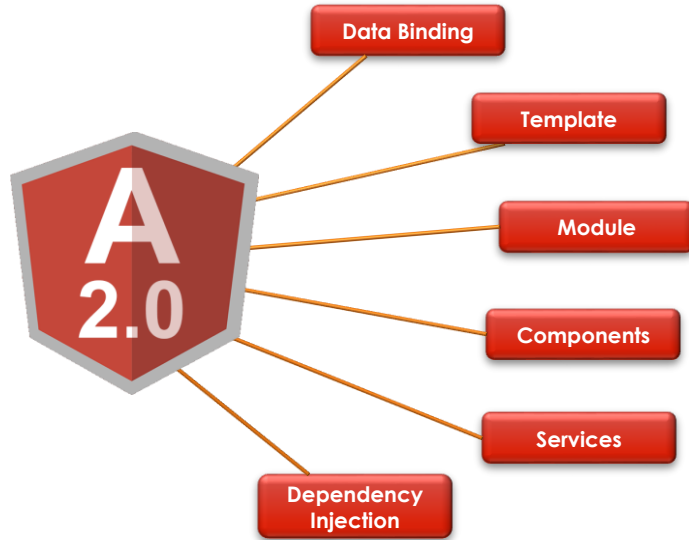


Open Source

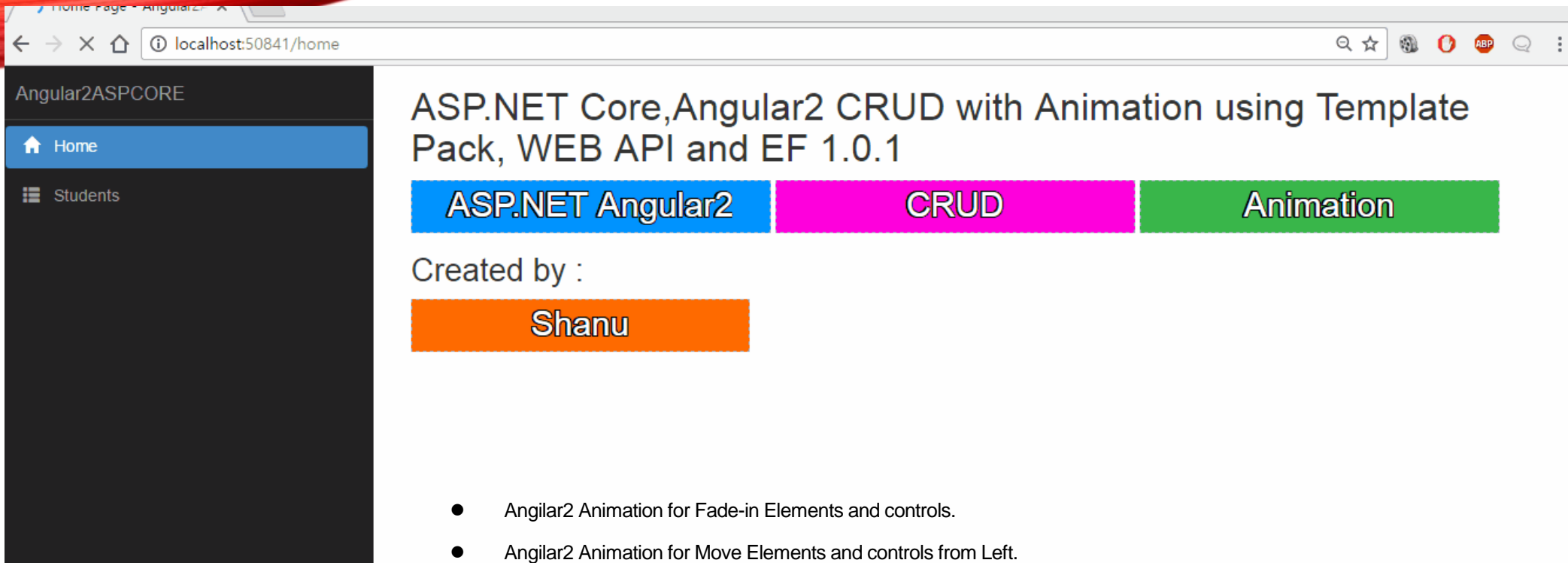


Cross-platform

# ANGULAR2 Architecture





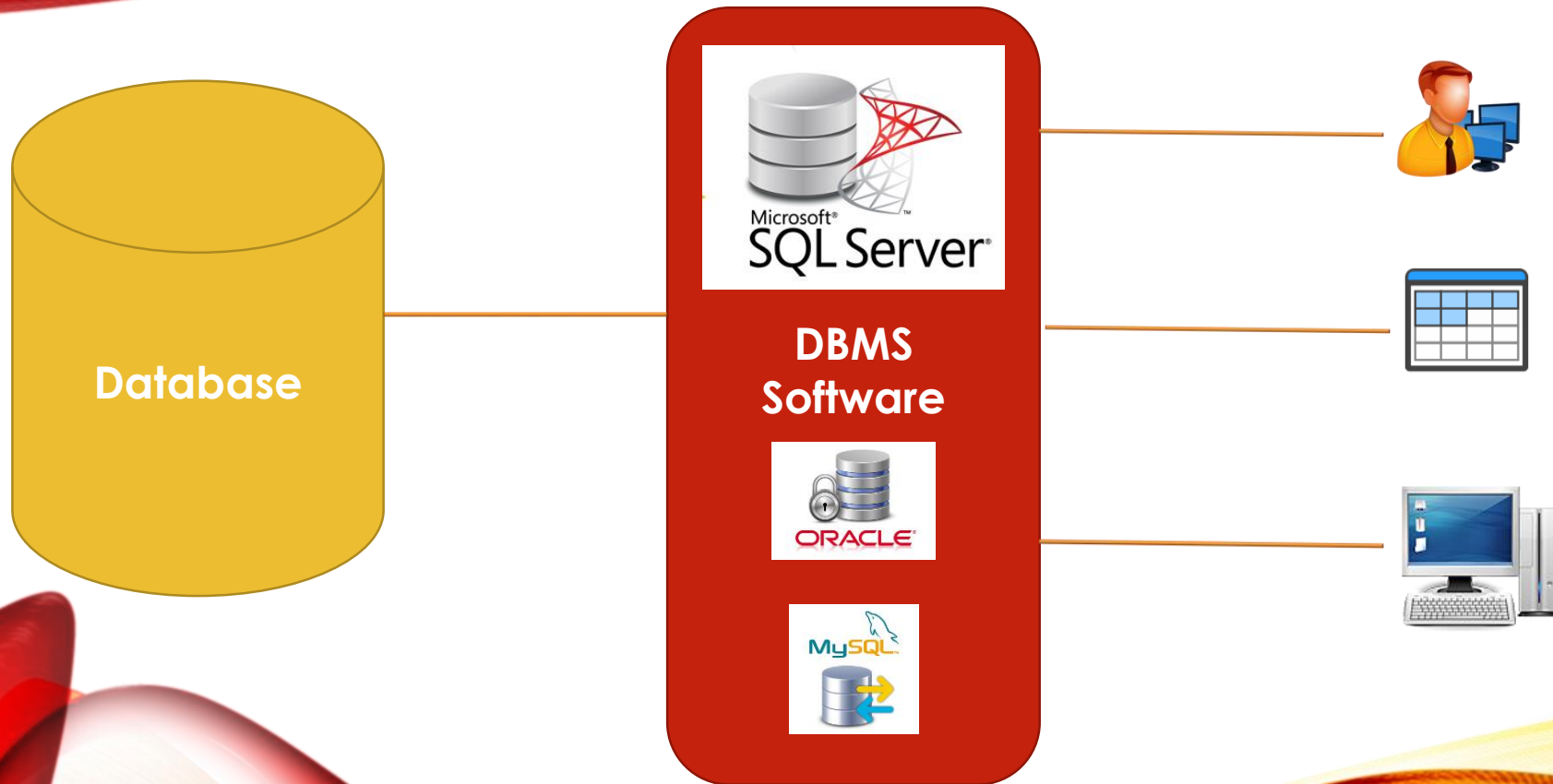


- Angular2 Animation for Fade-in Elements and controls.
- Angular2 Animation for Move Elements and controls from Left.
- Angular2 Animation for Move Elements and controls from Right.
- Angular2 Animation for Move Elements and controls from Top.
- Angular2 Animation for Move Elements and controls from Bottom.
- Angular2 Animation to enlarge Button on Click.

# SQL SERVER



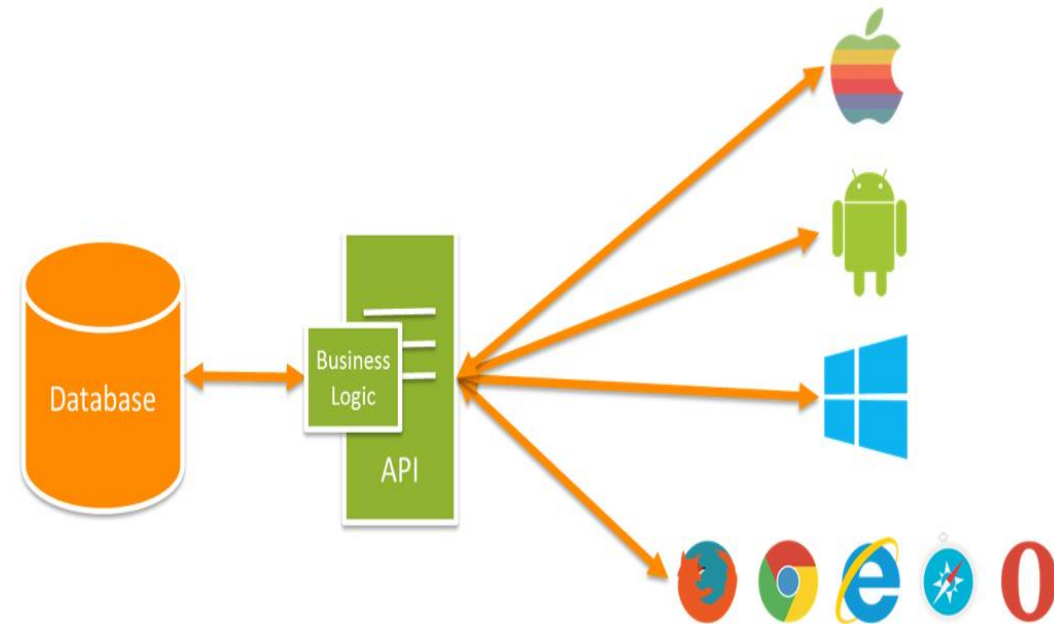
<http://www.c-sharpcorner.com/UploadFile/asmabegam/basic-sql-queries-for-beginners/>



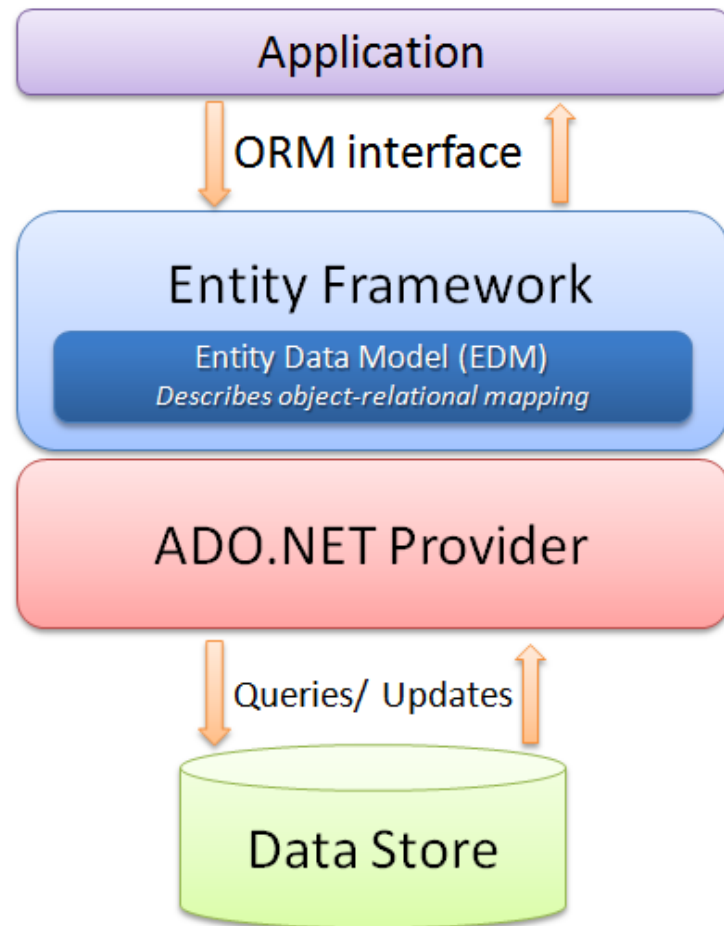


# Web API

- API stands for 'Application Programming Interface'
- Web API is a simple and easy way to build HTTP Services for Browsers and Mobiles.
- Web API has the following four methods as **Get/Post/Put and Delete** where:
  - ✓ **Get** is to request for the data. (Select)
  - ✓ **Post** is to create a data. (Insert)
  - ✓ **Put** is to update the data.
  - ✓ **Delete** is to delete data.



# Entity Framework



# ASP.NET CORE Application

Using

- ① SQL Server 2014
- ② ASP.NET Core
- ③ Entity Framework
- ④ Web API
- ⑤ Angular 2

**Note: Refer this website to get SQL Script and study in depth to create this website**

<http://www.c-sharpcorner.com/article/create-our-first-asp-net-core-angular-2-starter-application-net-core-using-te/>



# ASP.NET CORE Application

**Note: Refer this website to get SQL Script and study in depth to create this website**

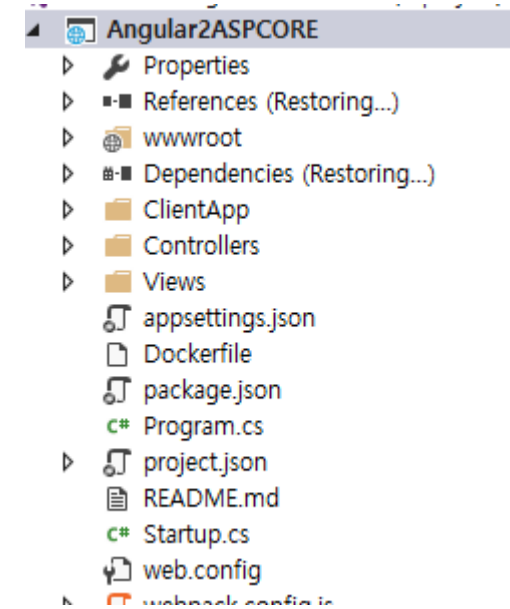
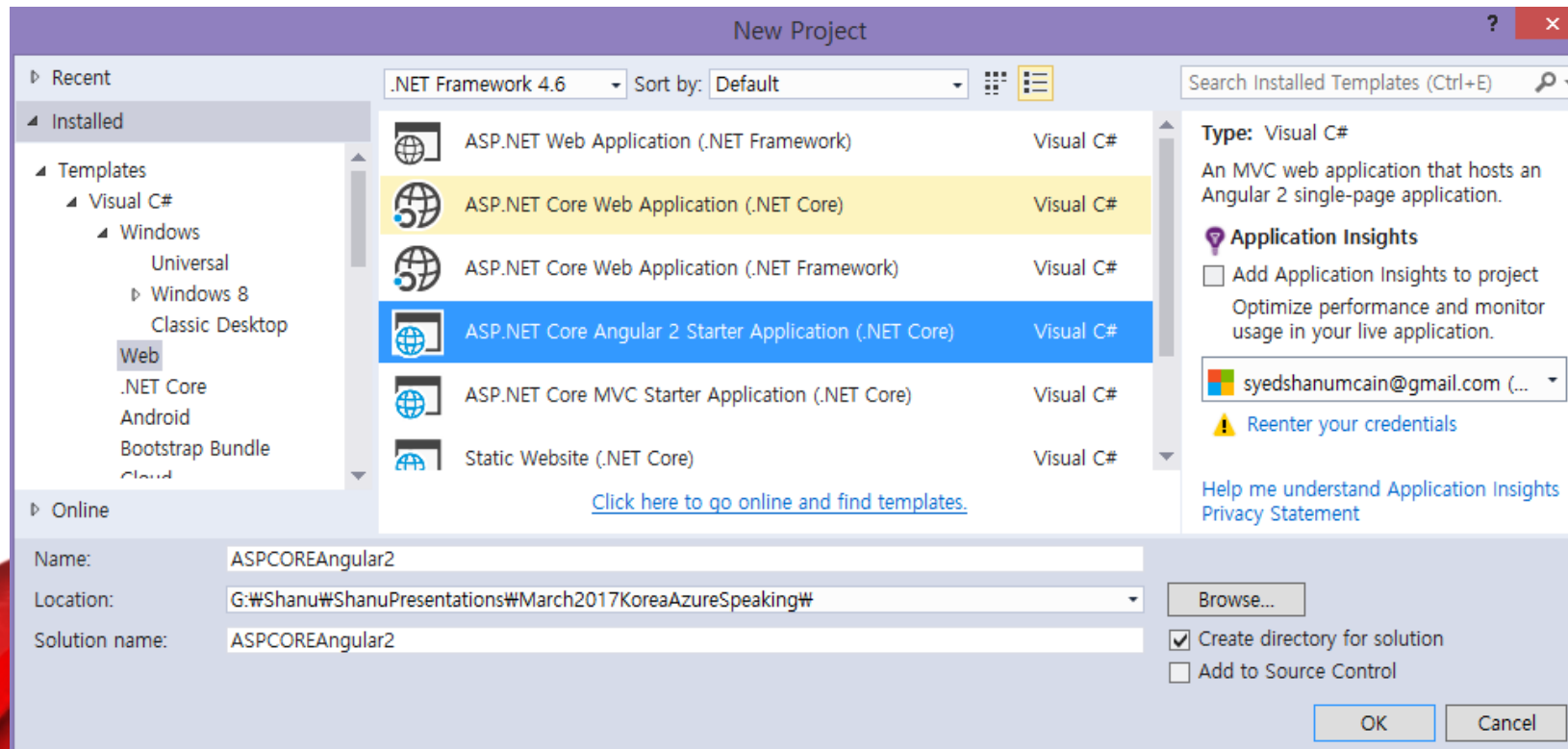
<http://www.c-sharpcorner.com/article/create-our-first-asp-net-core-angular-2-starter-application-net-core-using-te/>

## ① SQL Server 2014

✓ **Create Database and Table**

# ASP.NET CORE Application

## ✓ Create ASP.NET Core Angular2 Starter Application





# ASP.NET CORE Application

✓ **Create Entity framework** , we have used EF version 1.0.1

1. "Microsoft.EntityFrameworkCore.SqlServer": "1.0.1",
2. "Microsoft.EntityFrameworkCore.Tools": "1.0.0-preview2-final"

```
tp://json.schemastore.org/project
{
  "dependencies": {
    "Microsoft.NETCore.App": {
      "version": "1.0.1",
      "type": "platform"
    },
    "Microsoft.AspNetCore.AngularServices": "1.0.0-***",
    "Microsoft.AspNetCore.Diagnostics": "1.0.0",
    "Microsoft.AspNetCore.Mvc": "1.0.1",
    "Microsoft.AspNetCore.Razor.Tools": {
      "version": "1.0.0-preview2-final",
      "type": "build"
    },
    "Microsoft.AspNetCore.Server.IISIntegration": "1.0.0",
    "Microsoft.AspNetCore.Server.Kestrel": "1.0.1",
    "Microsoft.AspNetCore.StaticFiles": "1.0.0",
    "Microsoft.Extensions.Configuration.EnvironmentVariables": "1.0.0",
    "Microsoft.Extensions.Configuration.Json": "1.0.0",
    "Microsoft.Extensions.Configuration.CommandLine": "1.0.0",
    "Microsoft.Extensions.Logging": "1.0.0",
    "Microsoft.Extensions.Logging.Console": "1.0.0",
    "Microsoft.Extensions.Logging.Debug": "1.0.0",
    "Microsoft.Extensions.Options.ConfigurationExtensions": "1.0.0",
    "Microsoft.EntityFrameworkCore.SqlServer": "1.0.1",
    "Microsoft.EntityFrameworkCore.Tools": "1.0.0-preview2-final"
  },
}
```

## References

### .NETCoreApp,Version=v1.0

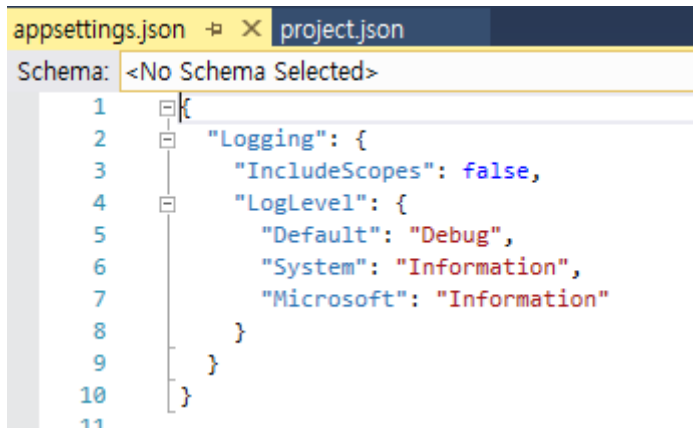
- Microsoft.AspNetCore.AngularServices (1.0.0-beta-000021)
- Microsoft.AspNetCore.Diagnostics (1.0.0)
- Microsoft.AspNetCore.Mvc (1.0.1)
- Microsoft.AspNetCore.Razor.Tools (1.0.0-preview2-final)
- Microsoft.AspNetCore.Server.IISIntegration (1.0.0)
- Microsoft.AspNetCore.Server.Kestrel (1.0.1)
- Microsoft.AspNetCore.StaticFiles (1.0.0)
- Microsoft.EntityFrameworkCore.SqlServer (1.0.1)
- Microsoft.EntityFrameworkCore.Tools (1.0.0-preview2-final)
- Microsoft.Extensions.Configuration.CommandLine (1.0.0)



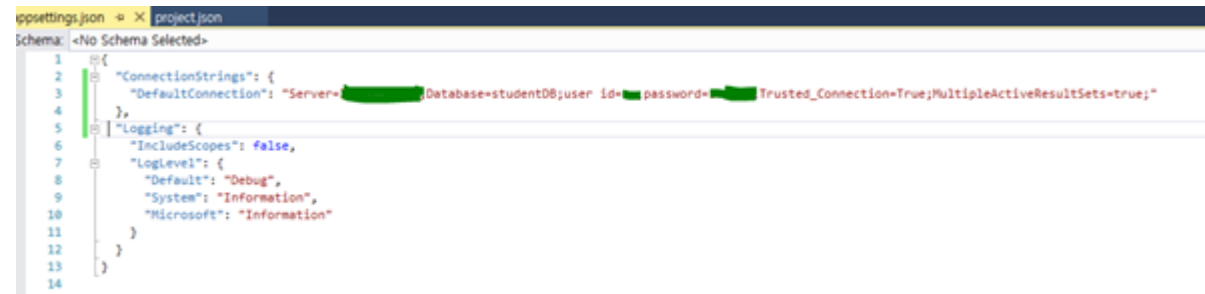
# ASP.NET CORE Application

## ✓ Add Connection String

```
"ConnectionStrings": {  
  "DefaultConnection": "Server=YOURDBSERVER;Database=StudentsDB;user id=SQLID;password=SQLPWD;Trusted_Connection=True;MultipleActiveResultSets=true;"  
},
```



```
appsettings.json  project.json  
Schema: <No Schema Selected>  
1 {  
2   "Logging": {  
3     "IncludeScopes": false,  
4     "LogLevel": {  
5       "Default": "Debug",  
6       "System": "Information",  
7       "Microsoft": "Information"  
8     }  
9   }  
10 }  
11
```

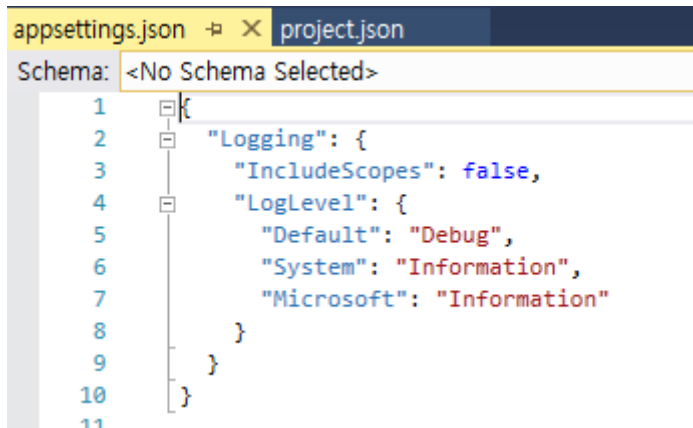


```
appsettings.json  project.json  
Schema: <No Schema Selected>  
1 {  
2   "ConnectionStrings": {  
3     "DefaultConnection": "Server=[REDACTED];Database=studentDB;user id=[REDACTED];password=[REDACTED];Trusted_Connection=True;MultipleActiveResultSets=true;"  
4   },  
5   "Logging": {  
6     "IncludeScopes": false,  
7     "LogLevel": {  
8       "Default": "Debug",  
9       "System": "Information",  
10      "Microsoft": "Information"  
11    }  
12  }  
13 }  
14
```

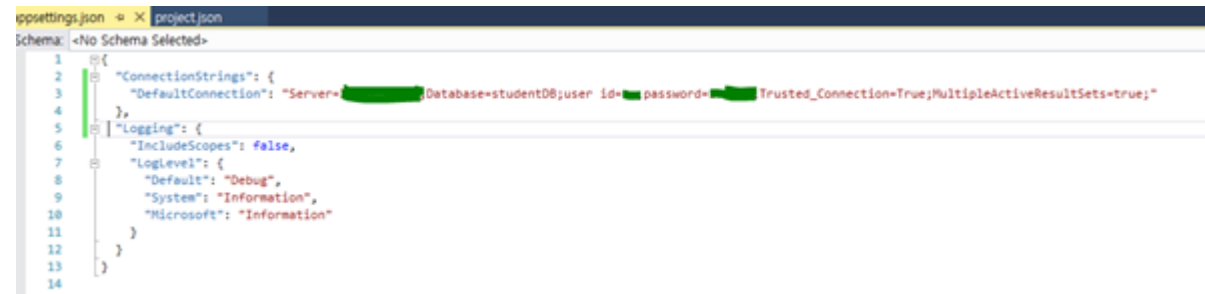
# ASP.NET CORE Application

## ✓ Add Connection String

```
"ConnectionStrings": {  
  "DefaultConnection": "Server=YOURDBSERVER;Database=StudentsDB;user id=SQLID;password=SQLPWD;Trusted_Connection=True;MultipleActiveResultSets=true;"  
},
```



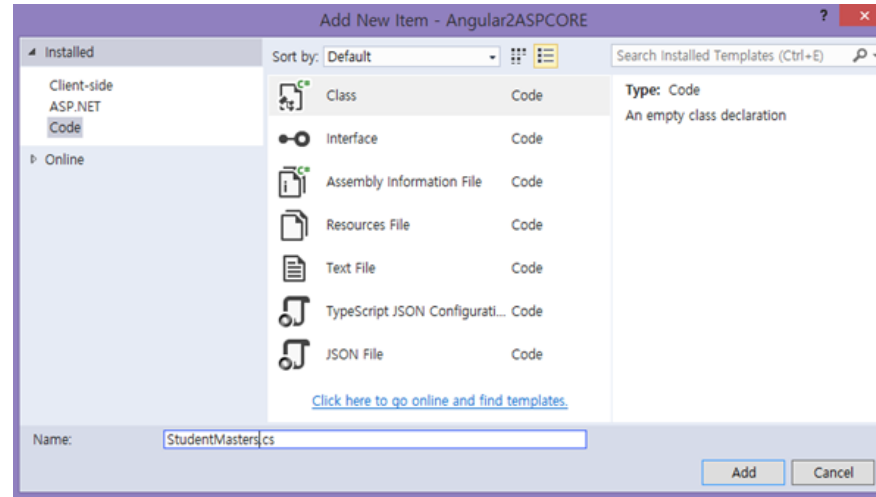
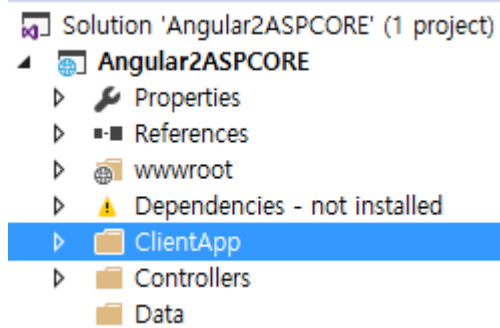
```
appsettings.json  project.json  
Schema: <No Schema Selected>  
1 {  
2   "Logging": {  
3     "IncludeScopes": false,  
4     "LogLevel": {  
5       "Default": "Debug",  
6       "System": "Information",  
7       "Microsoft": "Information"  
8     }  
9   }  
10 }  
11
```



```
appsettings.json  project.json  
Schema: <No Schema Selected>  
1 {  
2   "ConnectionStrings": {  
3     "DefaultConnection": "Server=[REDACTED];Database=studentDB;user id=[REDACTED];password=[REDACTED];Trusted_Connection=True;MultipleActiveResultSets=true;"  
4   },  
5   "Logging": {  
6     "IncludeScopes": false,  
7     "LogLevel": {  
8       "Default": "Debug",  
9       "System": "Information",  
10      "Microsoft": "Information"  
11    }  
12  }  
13 }  
14
```

# ASP.NET CORE Application

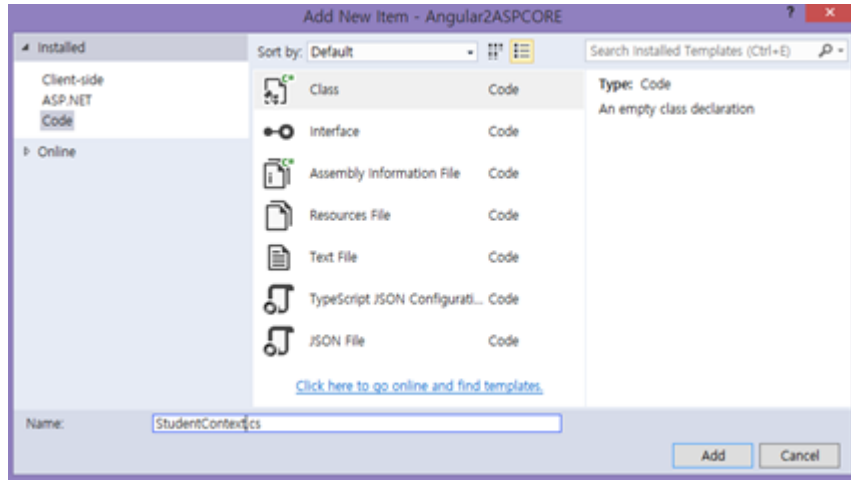
## ✓ Creating Model Class





# ASP.NET CORE Application

## ✓ Creating Database Context

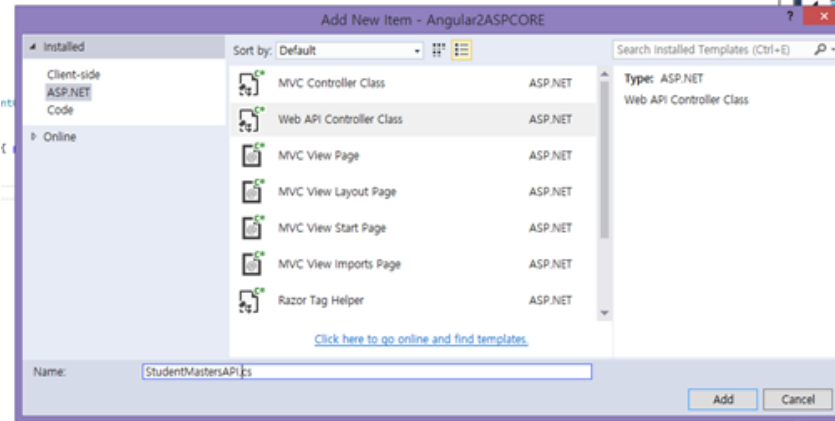
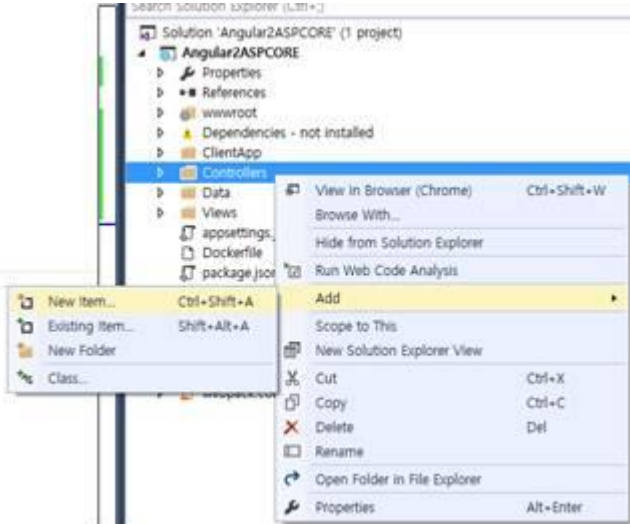


## ✓ Startup.CS

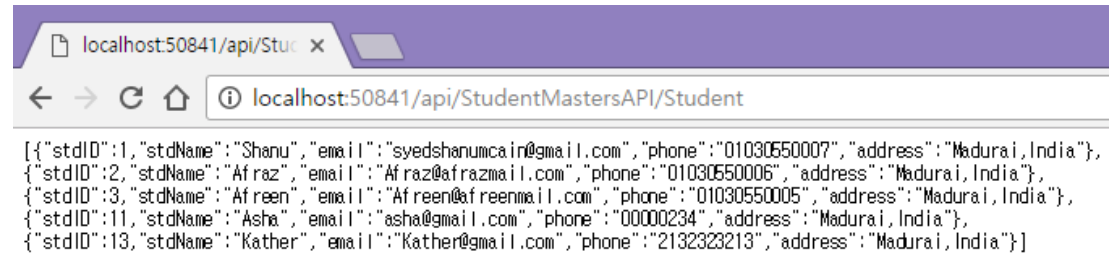
```
services.AddDbContext < studentContext > (options =>  
    options.UseSqlServer(Configuration.GetConnectionString("DefaultC  
onnection")));
```

# ASP.NET CORE Application

## ✓ Creating Web API



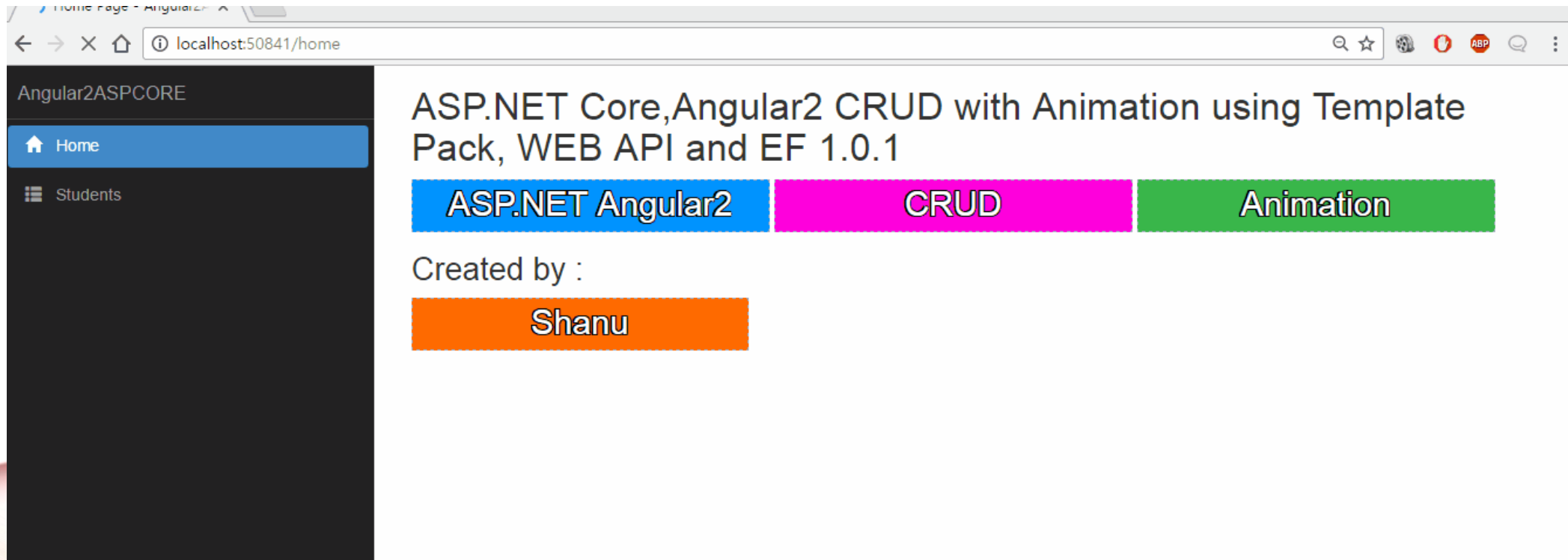
/api/StudentMastersAPI/Student



# ASP.NET CORE Application

## ✓ Open Home Component and HTML

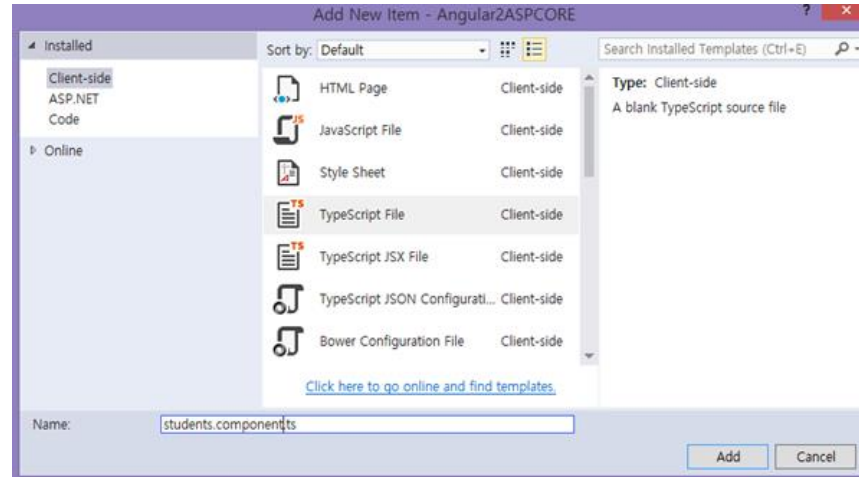
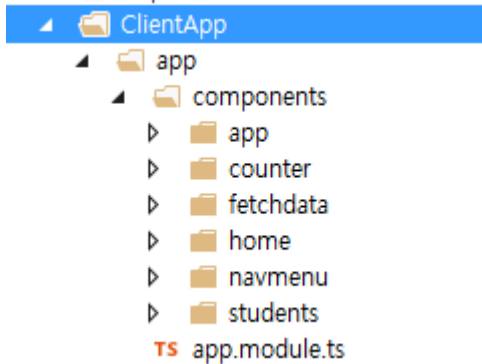
- Add Animation Code.



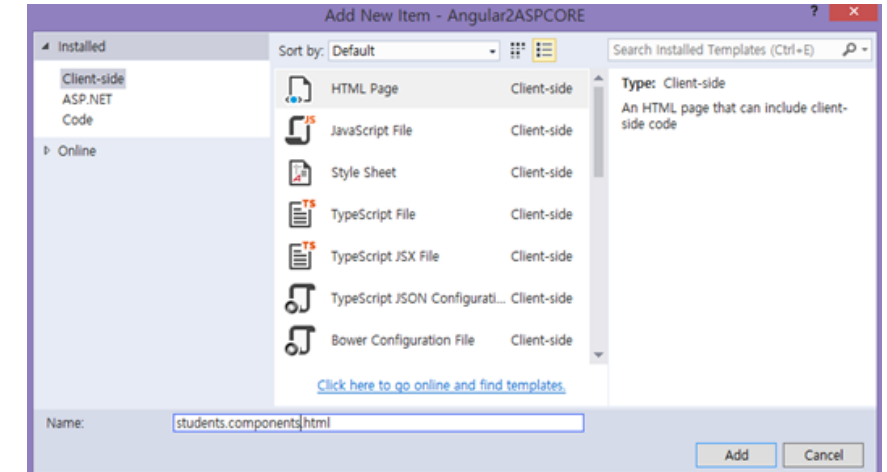


# Working with Angular2

✓ First create Component TypeScript



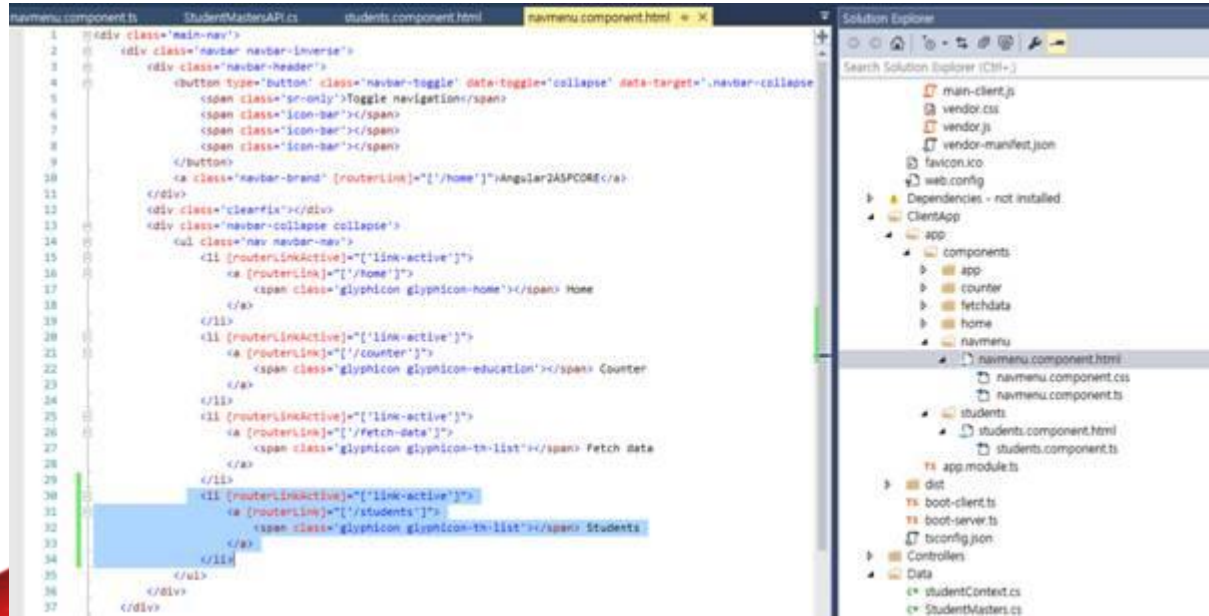
✓ Create HTML file to view our result



- import part
- component part
- class for writing our business logics.

# ASP.NET CORE Application

## ✓ Adding Navigation in menu



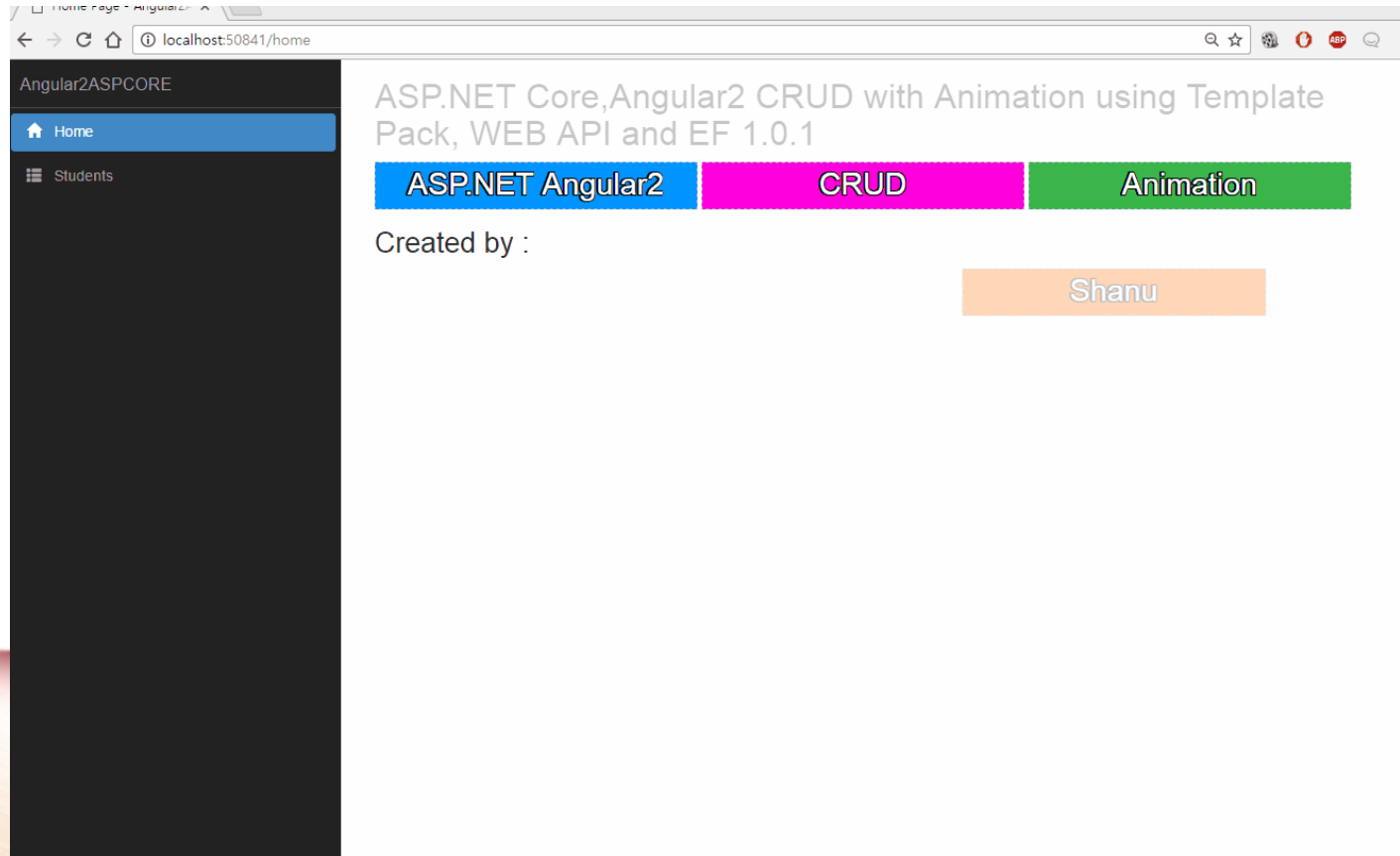
```
1 <div class='main-nav'>
2   <div class='nav navbar-inverse'>
3     <div class='navbar-header'>
4       <button type='button' class='navbar-toggle' data-toggle='collapse' data-target='.navbar-collapse'
5         <span class='sr-only'>Toggle navigation</span>
6         <span class='icon-bar'></span>
7         <span class='icon-bar'></span>
8         <span class='icon-bar'></span>
9       </button>
10      <a class='navbar-brand' [routerLink]='["/home"]'>Angular2ASPCORE</a>
11    </div>
12    <div class='collapse navbar-collapse'>
13      <ul class='nav navbar-nav'>
14        <li [routerLinkActive]='["link-active"]'>
15          <a [routerLink]='["/home"]'>
16            <span class='glyphicon glyphicon-home'></span> Home
17          </a>
18        </li>
19        <li [routerLinkActive]='["link-active"]'>
20          <a [routerLink]='["/counter"]'>
21            <span class='glyphicon glyphicon-education'></span> Counter
22          </a>
23        </li>
24        <li [routerLinkActive]='["link-active"]'>
25          <a [routerLink]='["/fetch-data"]'>
26            <span class='glyphicon glyphicon-th-list'></span> Fetch data
27          </a>
28        </li>
29        <li [routerLinkActive]='["link-active"]'>
30          <a [routerLink]='["/students"]'>
31            <span class='glyphicon glyphicon-th-list'></span> Students
32          </a>
33        </li>
34      </ul>
35    </div>
36  </div>
37</div>
```

```
<li [routerLinkActive]='["link-active"]'>
  <a [routerLink]='["/students"]'>
    <span class='glyphicon glyphicon-th-list'></span>
  </a>
</li>
```

# ASP.NET CORE Application

## ✓ App Module

- Import Students Component
- Add Student Module





# ASP.NET CORE Application

✓ Build and run the application

Angular2ASPCORE

Home

Students

ASP.NET Core,Angular2 CRUD with Animation using Template Pack, WEB API and EF 1.0.1

Created by :  
Shanu

Add New Students Information

Add New Student Information

Insert/Edit Student Details :

Students ID: 3

Email: Afreen@afreenmail.com

Address: Madurai,India

Students Name: Afreen

Phone: 01030550005

Save

Close

Edit	Delete	Student ID	Student Name	Email	Phone	Address
		1	Shanu	syedshanumcain@gmail.com	01030550007	Madurai,India
		2	Afraz	Afraz@afrazmail.com	01030550006	Madurai,India
		3	Afreen	Afreen@afreenmail.com	01030550005	Madurai,India
		11	Asha	asha@gmail.com	00000234	Madurai,India
		13	Kather	Kather@gmail.com	2132323213	Madurai,India

# Download



# Download

<https://github.com/syedshanu/ASPNETCOREAngular2>

# More Resources



<https://mvp.microsoft.com/en-us/PublicProfile/5001980?fullName=Syed%20%20Shanu>



C#Corner

<http://www.c-sharpcorner.com/members/syed-shanu>



<http://www.codeproject.com/Articles/syed-shanu>



Questions ?



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