

This document explains how to integrate Angular CLI project into .Net Framework MVC project. I have used Visual Studio 2017 for this.

1. Install NodeJS
2. To Check npm version, Open command prompt

```
npm -v
```

I have 3.10.10 installed

3. Install Angular CLI

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

4. To check Angular CLI version

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

I have 1.3.2 installed. More info: <https://cli.angular.io/>

5. Now Create an Angular CLI project

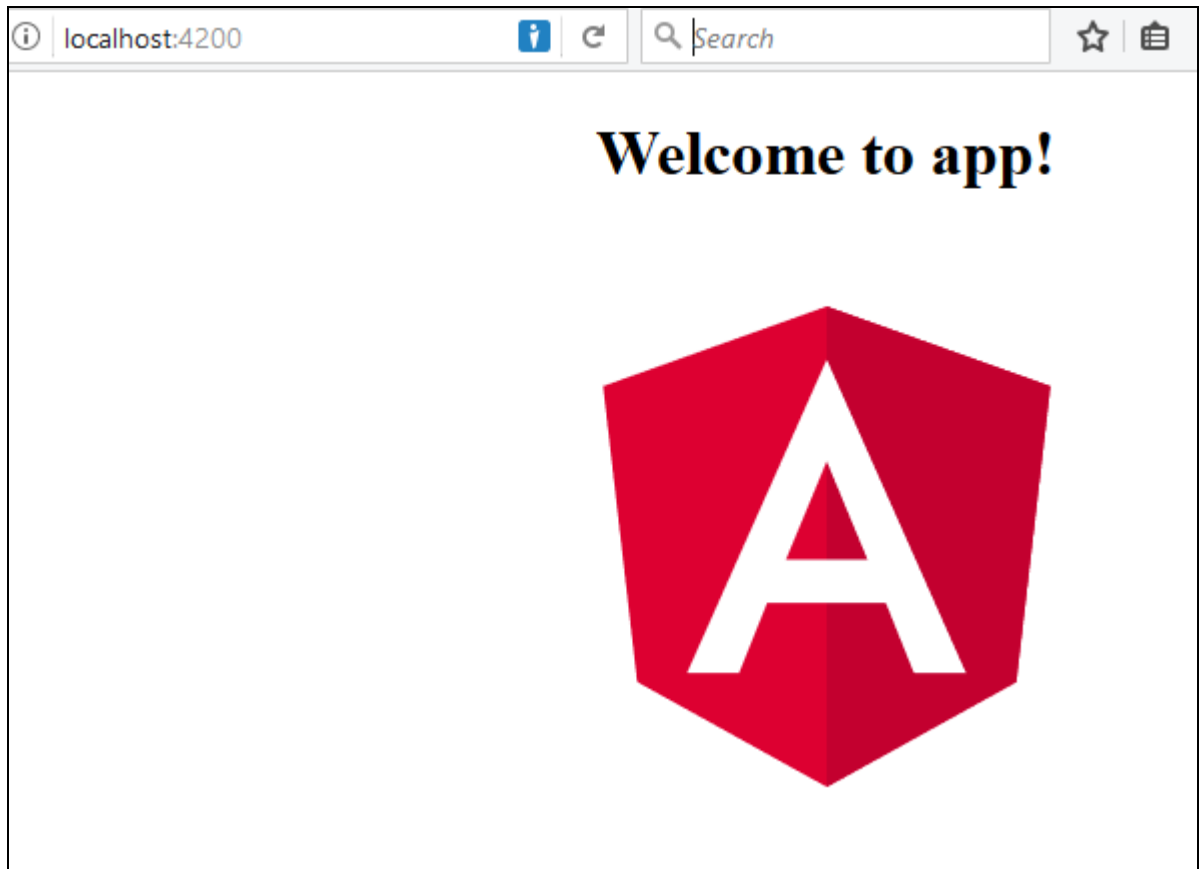
```
ng new Neo-CLI-app
```

This will install the project “Neo-CLI-app” with following structure with all “node_modules”

e2e	30/08/2017 11:17 ...	File folder	
node_modules	30/08/2017 11:18 ...	File folder	
src	30/08/2017 11:17 ...	File folder	
.angular-cli.json	30/08/2017 11:17 ...	JSON File	2 KB
.editorconfig	30/08/2017 11:17 ...	EDITORCONFIG File	1 KB
.gitignore	30/08/2017 11:17 ...	Text Document	1 KB
karma.conf.js	30/08/2017 11:17 ...	JavaScript File	1 KB
package.json	30/08/2017 11:17 ...	JSON File	2 KB
protractor.conf.js	30/08/2017 11:17 ...	JavaScript File	1 KB
README.md	30/08/2017 11:17 ...	MD File	2 KB
tsconfig.json	30/08/2017 11:17 ...	JSON File	1 KB
tslint.json	30/08/2017 11:17 ...	JSON File	3 KB













```
cd Neo-CLI-app
```

```
ng serve Neo-CLI-app
```



The site is now ready. Observe the root does not have the “dist” folder. Now type the below command.

```
ng build
```

letFWMVC_NgCli > Neo-CLI-app > dist			
Name	Date modified	Type	Size
 favicon.ico	30/08/2017 11:26 ...	Icon	6 KB
 index.html	30/08/2017 11:26 ...	Firefox HTML Doc...	1 KB
 inline.bundle.js	30/08/2017 11:26 ...	JavaScript File	6 KB
 inline.bundle.js.map	30/08/2017 11:26 ...	Linker Address Map	6 KB
 main.bundle.js	30/08/2017 11:26 ...	JavaScript File	9 KB
 main.bundle.js.map	30/08/2017 11:26 ...	Linker Address Map	7 KB
 polyfills.bundle.js	30/08/2017 11:26 ...	JavaScript File	205 KB
 polyfills.bundle.js.map	30/08/2017 11:26 ...	Linker Address Map	244 KB
 styles.bundle.js	30/08/2017 11:26 ...	JavaScript File	12 KB
 styles.bundle.js.map	30/08/2017 11:26 ...	Linker Address Map	15 KB
 vendor.bundle.js	30/08/2017 11:26 ...	JavaScript File	1,902 KB
 vendor.bundle.js.map	30/08/2017 11:26 ...	Linker Address Map	2,335 KB

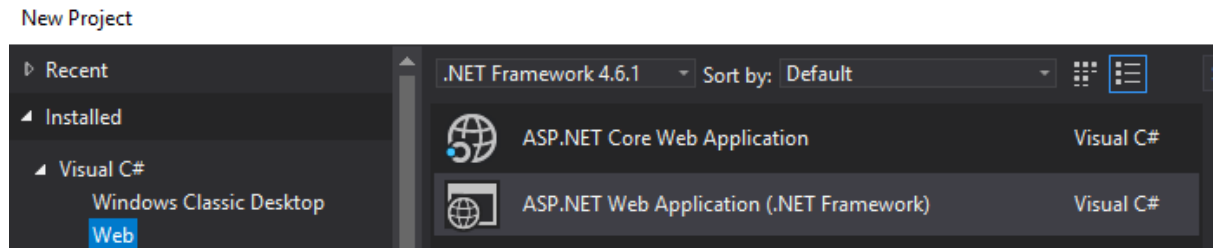
See the “dist” folder contents created now. Notice the js files created.

```

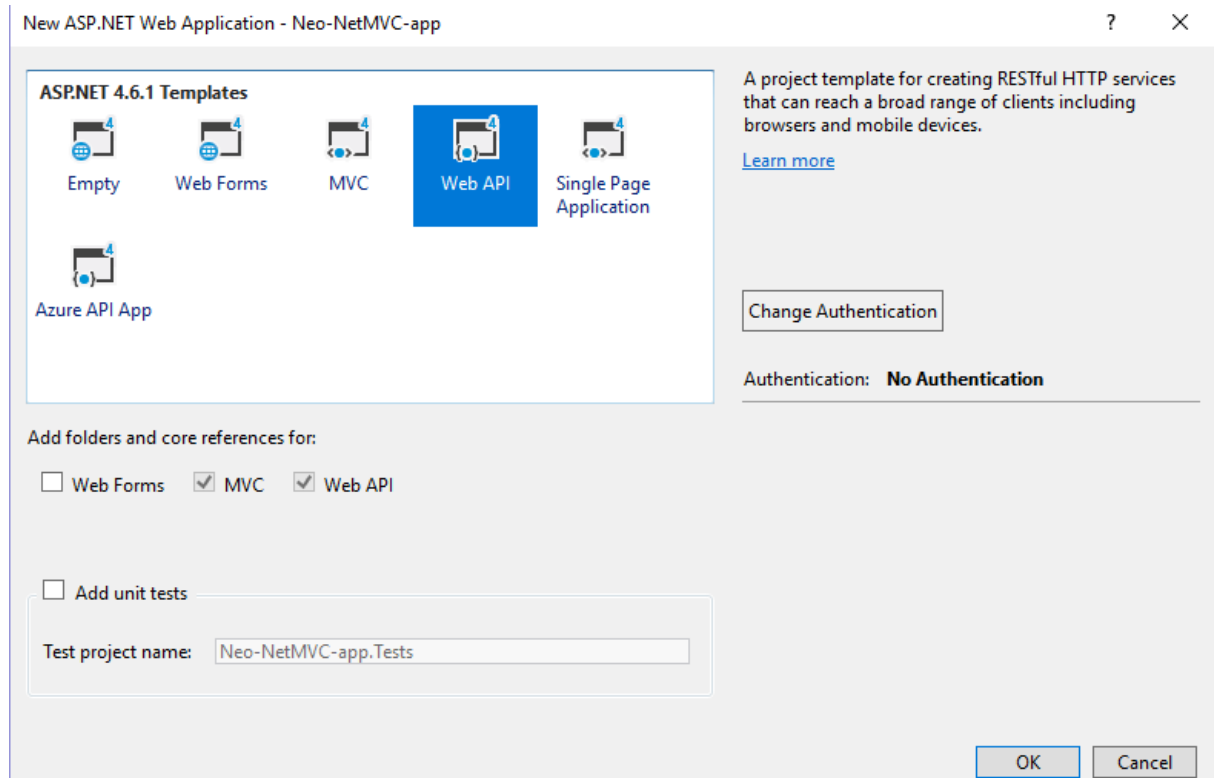
Date: 2017-08-30T13:26:38.974Z
Hash: 4462a0d4acea0f5fe700
Time: 7329ms
chunk {inline} inline.bundle.js, inline.bundle.js.map (inline) 5.83 kB [entry] [rendered]
chunk {main} main.bundle.js, main.bundle.js.map (main) 8.41 kB {vendor} [initial] [rendered]
chunk {polyfills} polyfills.bundle.js, polyfills.bundle.js.map (polyfills) 209 kB {inline} [initial] [rendered]
chunk {styles} styles.bundle.js, styles.bundle.js.map (styles) 11.3 kB {inline} [initial] [rendered]
chunk {vendor} vendor.bundle.js, vendor.bundle.js.map (vendor) 1.95 MB [initial] [rendered]

```

Now we are ready to integrate on an MVC project. In VS 2017 select File->New Project



Select ASP.Net Web Application (.Net)



Select "Web API" with No Authentication (Individual User Accounts is also fine).

Run the project and make sure it shows default page. Notice the localhost and port number

<http://localhost:52168/>

Copy the necessary NG Cli files into this project root folder of VS 2017 (except dist folder).

NetFWMVC_NgCli > Neo-CLI-app

Name	Date modified	Type	Size
dist	30/08/2017 11:26 ...	File folder	
e2e	30/08/2017 11:17 ...	File folder	
node_modules	30/08/2017 11:18 ...	File folder	
src	30/08/2017 11:17 ...	File folder	
.angular-cli.json	30/08/2017 11:17 ...	JSON File	2 KB
.editorconfig	30/08/2017 11:17 ...	EDITORCONFIG File	1 KB
.gitignore	30/08/2017 11:17 ...	Text Document	1 KB
karma.conf.js	30/08/2017 11:17 ...	JavaScript File	1 KB
package.json	30/08/2017 11:17 ...	JSON File	2 KB
protractor.conf.js	30/08/2017 11:17 ...	JavaScript File	1 KB
README.md	30/08/2017 11:17 ...	MD File	2 KB
tsconfig.json	30/08/2017 11:17 ...	JSON File	1 KB
tslint.json	30/08/2017 11:17 ...	JSON File	3 KB

NetFWMVC_NgCli > Neo-NetMVC-app > Neo-NetMVC-app

Name	Date modified	Type	Size
Controllers	30/08/2017 11:33 ...	File folder	
e2e	30/08/2017 11:36 ...	File folder	
fonts	30/08/2017 11:33 ...	File folder	
Models	30/08/2017 11:33 ...	File folder	
node_modules	30/08/2017 11:39 ...	File folder	
obj	30/08/2017 11:33 ...	File folder	
Properties	30/08/2017 11:33 ...	File folder	
Scripts	30/08/2017 11:33 ...	File folder	
src	30/08/2017 11:39 ...	File folder	
Views	30/08/2017 11:33 ...	File folder	
.angular-cli.json	30/08/2017 11:17 ...	JSON File	2 KB
.editorconfig	30/08/2017 11:17 ...	EDITORCONFIG File	1 KB
.gitignore	30/08/2017 11:17 ...	Text Document	1 KB
ApplicationInsights.config	30/08/2017 11:33 ...	CONFIG File	6 KB
favicon.ico	30/08/2017 11:33 ...	Icon	32 KB
Global.asax	30/08/2017 11:33 ...	ASAX File	1 KB
Global.asax.cs	30/08/2017 11:33 ...	Visual C# Source F...	1 KB
karma.conf.js	30/08/2017 11:17 ...	JavaScript File	1 KB
Neo-NetMVC-app.csproj	30/08/2017 11:33 ...	Visual C# Project f...	18 KB
Neo-NetMVC-app.csproj.user	30/08/2017 11:33 ...	Per-User Project O...	2 KB
package.json	30/08/2017 11:17 ...	JSON File	2 KB
packages.config	30/08/2017 11:33 ...	CONFIG File	3 KB
protractor.conf.js	30/08/2017 11:17 ...	JavaScript File	1 KB

Click “Show All Files” in Vis Studio

Add all files into the project except “node_modules” folder

Now modify _layout.cshtml

```
<base href="/">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="icon" type="image/x-icon" href="favicon.ico">
```

```
<body>

  @RenderBody()
  <script type="text/javascript" src="~/dist/inline.bundle.js"></script>
  <script type="text/javascript" src="~/dist/polyfills.bundle.js"></script>
  <script type="text/javascript" src="~/dist/styles.bundle.js"></script>
  <script type="text/javascript" src="~/dist/vendor.bundle.js"></script>
  <script type="text/javascript" src="~/dist/main.bundle.js"></script>

  @Scripts.Render("~/bundles/jquery")
  @Scripts.Render("~/bundles/bootstrap")
  @RenderSection("scripts", required: false)
</body>
```

You can copy this from index.html in the “dist” folder of “Neo-CLI-app” created earlier and add update with “~/dist/” path location

Modify index.cshtml and Replace all content with <app-root>

```
<app-root></app-root>
```

Close Solution. Modify “AfterBuild” settings in .csproj file after opening it in Notepad

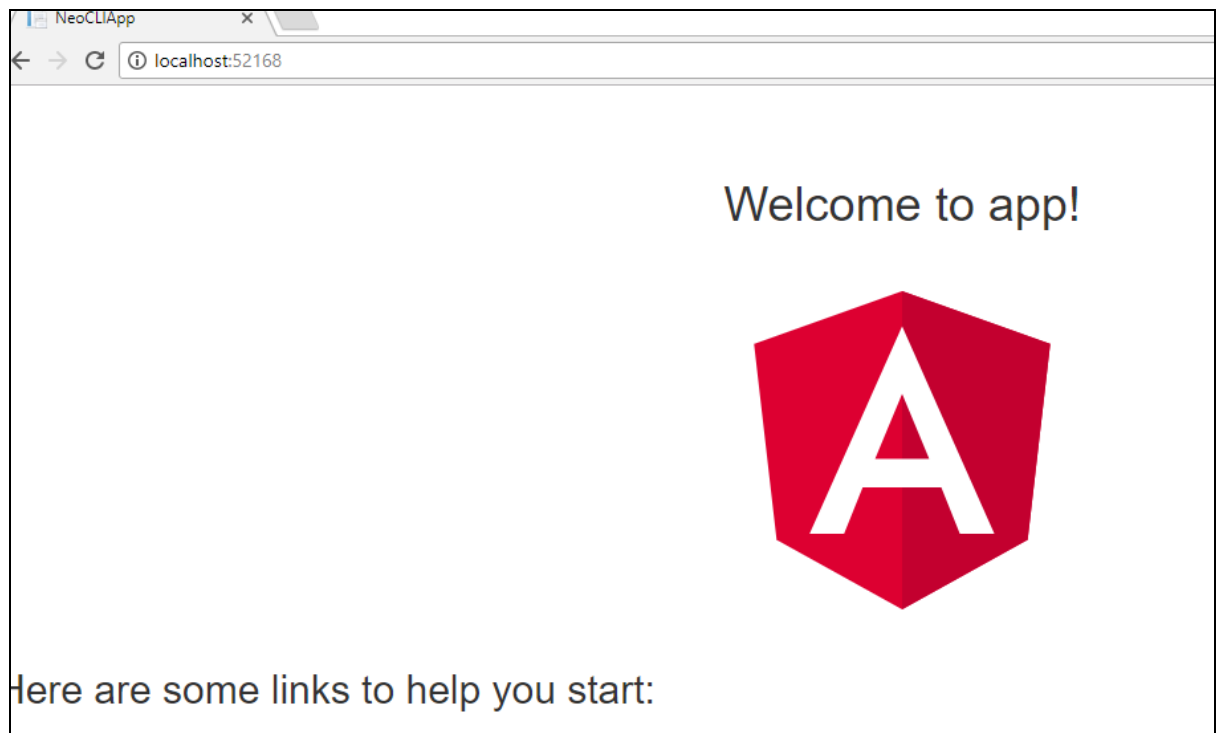
```
<Target Name="AfterBuild">
<Exec Command="ng build --deploy-url http://localhost:52168/dist/"
WorkingDirectory="$(ProjectDir)" Condition="'$(Configuration)|$(Platform)' == 'Debug|AnyCPU' " />
</Target>
```

More info: <https://www.codeproject.com/Articles/1193423/Integrating-the-Angular-CLI-With-Visual-Studio>

Make sure only modify “Afterbuild” section

```
<!-- To modify your build process, add your task inside one of the targets below and uncomment it.
      Other similar extension points exist, see Microsoft.Common.targets.
-->
<Target Name="BeforeBuild">
-->
<Target Name="AfterBuild">
<Exec Command="ng build --deploy-url http://localhost:52168/dist/" WorkingDirectory="$(ProjectDir)" Condition="'$(Configuration)|$(Platform)' == 'Debug|AnyCPU' " />
</Target>
</Project>
```

Save and re-open Solution. Run the solution



Now you have Angular CLI app in .net Framework with Bootstrap theme