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# Setting-up development environment

This document helps developer to setting up the Angular2 and type script project by:

* Creating Empty MVC,Angular2 and Typescript project
* Setting up existing sample project direct using Visual Studio 2015.

## Setting up empty MVC, Angular2 and TypeScript project

1. Start visual studio 2015 with Administration rights and select “New Project” option
2. Select Web >> ASP.net Web Application >> Give name to your project and solution, from the open dialog window select ASP.net 4.5.2 Templates >> Empty and select MVC checkbox and proceed further by clicking Ok, this will creates an empty MVC project.
3. Now need to install some dependencies using Node and Bower, create package.json file by using command ‘**npm init –y’**(before executing command need to go in to the project directory using command prompt window as Administrator)
4. Include your package.json file inside project and open in visual studio, and replace below json text

{

"name": "<<project Name>>",

"version": "1.0.0",

"description": "",

"main": "app.js",

"scripts": {

"start": "live-server"

},

"keywords": [],

"author": "",

"license": "ISC",

"dependencies": {

"angular2": "2.0.0-alpha.44"

},

"devDependencies": {

"live-server": "^0.8.1"

}

1. Create bower.json file and include it in project and add below json text

{

"name": "angular2-poc",

"version": "0.0.1",

"authors": [

"Torgeir Helgevold <gedia.deepak@gmail.com>"

],

"license": "MIT",

"ignore": [

"\*\*/.\*",

"node\_modules",

"bower\_components"

],

"dependencies": {

"bootstrap": "~3.3.4",

"jquery": "~2.1.4",

"jquery-ui": "~1.11.4",

"moment": "~2.10.6",

"react": "~0.13.3",

"underscore": "~1.8.3"

}

}

1. The above code(Package.json and Bower.json) installs the Angular2, live-server(to view the developed page on virtual development server), bootstrap, jquery etc.
2. If you running behind proxy then you need to set certain commands in the command prompt to download the repositories from gits.
   1. For npm command set proxy in command prompt

Type command - set http\_proxy=http://your\_proxy:your\_port

* 1. And for bower create a bowerrec file to access the repositories

Create .bowerrec file(inside your project directory) and add

{

"proxy":"http://<KID>:<password>@ProxyURL:Port/",

"https-proxy":"<KID>:<password>@ProxyURL:Port/"

}

Note: if you have special char in your password then please encode it and put in as password

Example: S@tya2015 then S%40tya2015

Note:- before executing the next steps make sure you are in the project directory so that it installs the dependencies for only project.

1. After completing all steps execute below 2 commands to setting up dependencies
   1. Npm install
   2. Bower install
2. Now need to install TSD(typescript compiler) and setup typings for the project
   1. Npm install –g tsd

This command installs the compiler globally

* 1. Tsd install angular2 es6-promise rx rx-lite

1. After this all Settings need to set another few compiler settings for type script, go to project, right click on project >> unload it >> open it in edit mode >>

Add below line after <IISExpressUseClassicPipelineMode />

<TypeScriptExperimentalDecorators>true</TypeScriptExperimentalDecorators>

Save it and close file and reload project.

1. Go to project properties and under the Typescript tab select Module system as CommonJs.

After doing all you are now good to go to create first simple sample project under typescript and Angular2.

### Create Simple Hello World Angular2 page

1. Add typescript file to project
2. Add below sample line of code

import {bootstrap, Component} from 'angular2/angular2';

@Component({

selector: 'my-app',

template: '<h1>My First Angular 2 App</h1>'

})

class AppComponent { }

bootstrap(AppComponent);

Create Html file as index.html

<html>

<head>

<title>Angular 2 QuickStart</title>

<script src="https://code.angularjs.org/tools/system.js"></script>

<script src="https://code.angularjs.org/tools/typescript.js"></script>

<script src="https://code.angularjs.org/2.0.0-alpha.44/angular2.dev.js"></script>

<script>

System.config({

transpiler: 'typescript',

typescriptOptions: { emitDecoratorMetadata: true }

});

System.import('./app.ts');

</script>

</head>

<body>

<my-app>loading...</my-app>

</body>

</html>

1. Build your project and browse
   1. You can browse using Visual Studio by hitting F5 and select browser as chrome
   2. And by using live-server(development server). That will gives you address that we need to use in chrome example: http://127.0.0.1:63563/

## Setting up sample Angular2 sample project

1. Download project from Gits
2. Open command prompt and navigate to project folder inside “**Angular2/Angular2**” If you running behind proxy then you need to set certain commands in the command prompt to download the repositories from gits.
   1. For npm command set proxy in command prompt

Type command - set http\_proxy=http://your\_proxy:your\_port

* 1. And for bower create a bowerrec file to access the repositories

Create .bowerrec file(inside your project directory) and add

{

"proxy":"http://<KID>:<password>@ProxyURL:Port/",

"https-proxy":"<KID>:<password>@ProxyURL:Port/"

}

Note: if you have special char in your password then please encode it and put in as password

Example: S@tya2015 then S%40tya2015

Note: - before executing the next steps make sure you are in the project directory so that it installs the dependencies for only project.

1. After completing all steps execute below 2 commands to setting up dependencies
   1. Npm install
   2. Bower install
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   1. Npm install –g tsd

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* 1. Tsd install angular2 es6-promise rx rx-lite

1. Create a web project or web application by the name “Angular2” in IIS 7 and point to the solution.
2. To run the project:

To view the sample code in browser (first one will be the recommended option)

* 1. In command prompt navigate to source folder Angular2/Angular2/ and type

**Nmp Start** command this will execute index.html page in virtual developer server.

* 1. Set statrtup page to index.html and brows in developer server.
  2. Set or create web application in IIS and point folder to this source and brows index.html

# More references on Angular2 and TypeScript

Start typescript project in Visual Studio 2015

<http://mobilemancer.com/2015/08/14/getting-started-typescript-1-5-in-visual-studio-2015/>

Setting up a TypeScript – RequireJS – Gulp – MVC 6 Web Project in Visual Studio 2015

<http://mobilemancer.com/2015/06/17/setting-up-a-typescript-requirejs-gulp-mvc-6-web-project-in-visual-studio-2015-rc/>

<http://blog.scottlogic.com/2015/12/07/angular-2.html?utm_campaign=linkplug&utm_source=linkplug&utm_medium=linkplug&utm_content=linkplug&utm_term=linkplug>