

My First Angular 2 Program

Before you start to code your first angular 2 app, you need two software install on your system.

- Nodejs
- Any editor that is easy to develop your angular 2 application.(I am going to use *Visual Studio Code*.)

Download these two software and install.

After installation of these two software open nodejs command prompt from Start->All Program->Node.js->Node.js command prompt.

Run following command to install angular-cli

```
C:\>npm install -g angular-cli@latest
```

After installation of angular-cli you are now able to use `ng` command. Here `-g` means globally install. For more information about angular-cli command see my tutorial on angular-cli.

Now you can create your first angular 2 app, HelloWorld.

```
C:\>ng new HelloWorld
```

Behind the scenes of this command

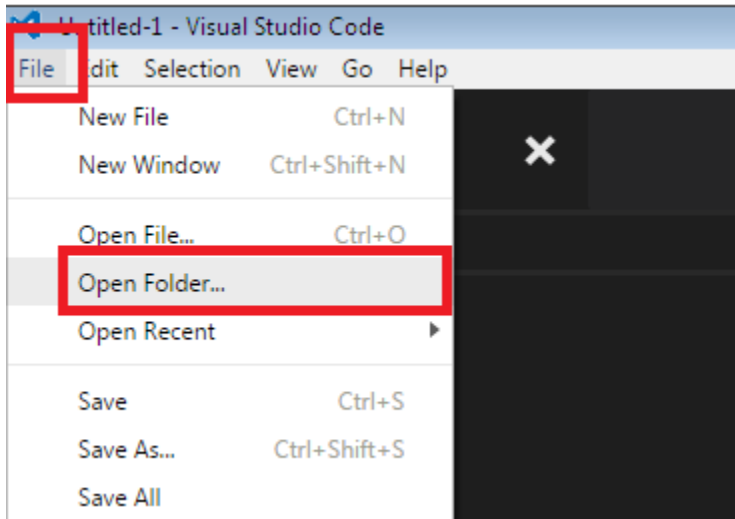
New directory HelloWorld is created (that is your project) and number of files create as shown below. Following is the structure of our project directory.

HelloWorld

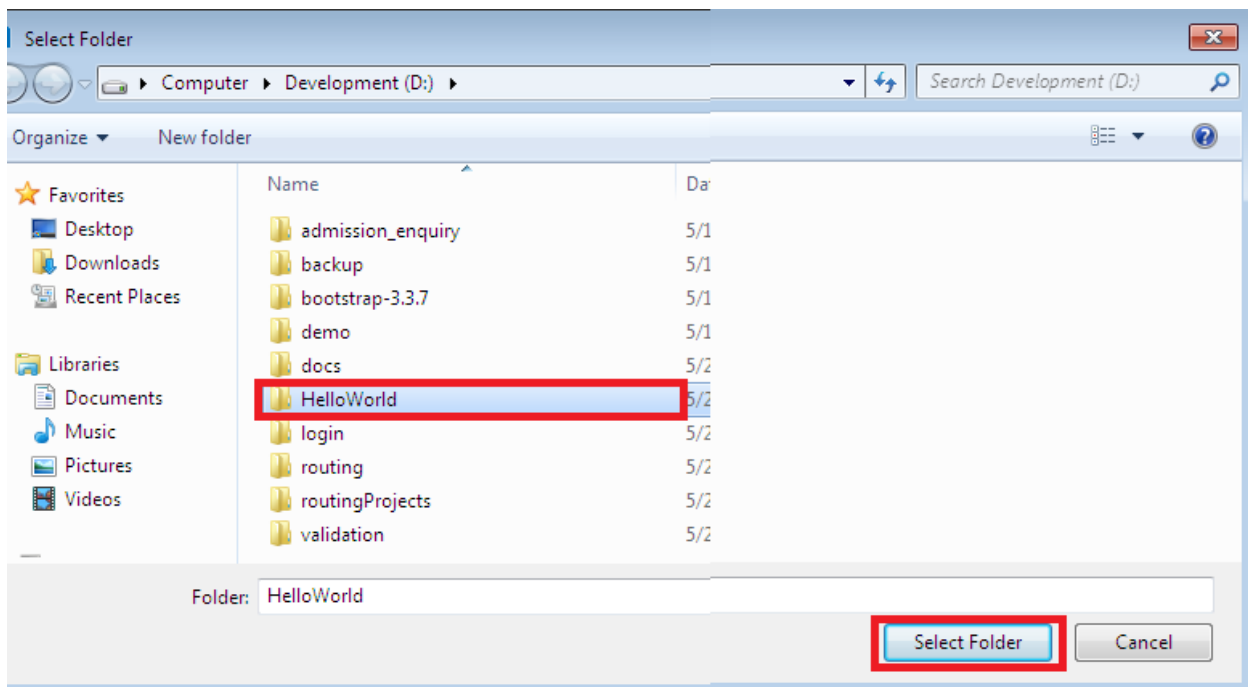
- ├─ README.md
- ├─ e2e
 - | └─ app.e2e-spec.ts
 - | └─ app.po.ts
 - | └─ tsconfig.e2e.json
- ├─ karma.conf.js
- ├─ package.json
- ├─ protractor.conf.js
- ├─ src
 - | └─ app
 - | | └─ app.component.css
 - | | └─ app.component.html
 - | | └─ app.component.spec.ts
 - | | └─ app.component.ts
 - | | └─ app.module.ts
 - | └─ assets
 - | └─ environments
 - | | └─ environment.prod.ts
 - | | └─ environment.ts
 - | └─ favicon.ico
 - | └─ index.html
 - | └─ main.ts
 - | └─ polyfills.ts
 - | └─ styles.css
 - | └─ test.ts
 - | └─ tsconfig.app.json
 - | └─ tsconfig.spec.json
 - | └─ typings.d.ts
- ├─ tsconfig.json
- └─ tslint.json

Now open your project directory in your editor. Following are the steps to open your project folder in VS code.

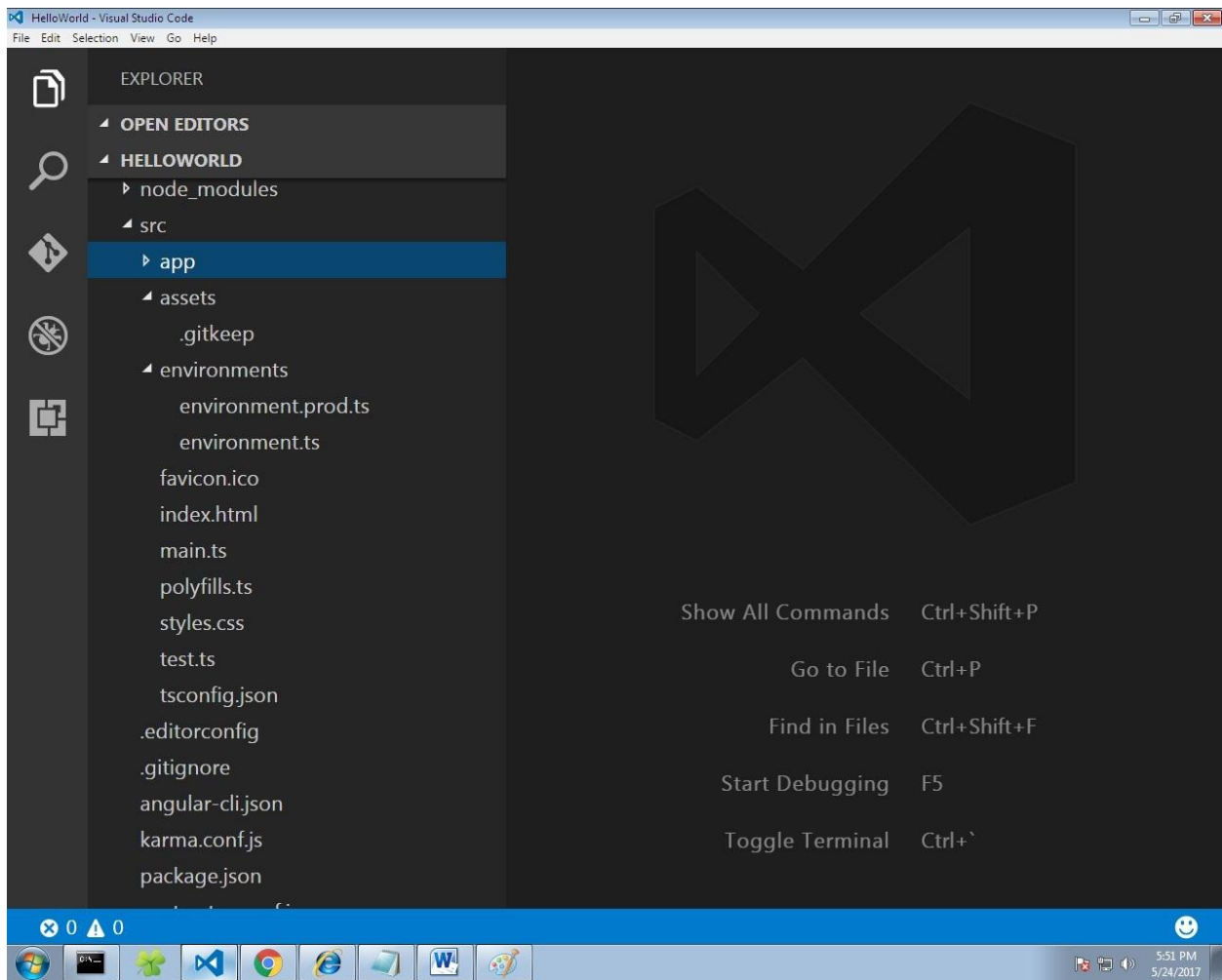
Step 1: File->Open Folder



Step 2:



After opening your project in VS code you will see following window



Now move to command prompt where you left, you just created project on command prompt.

Now change directory to your project directory, using following command.

```
C:\>cd HelloWorld
```

```
C:\>HelloWorld>
```

To run your project locally, to test, use following command.

C:\>HelloWorld>npm start

```
D:\HelloWorld>npm start
> hello-world@0.0.0 start D:\HelloWorld
> ng serve

As a forewarning, we are moving the CLI npm package to "@angular/cli" with the next release,
which will only support Node 6.9 and greater. This package will be officially deprecated
shortly after.

To disable this warning use "ng set --global warnings.packageDeprecation=false".

fallbackLoader option has been deprecated - replace with "fallback"
loader option has been deprecated - replace with "use"
fallbackLoader option has been deprecated - replace with "fallback"
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loader option has been deprecated - replace with "use"
** NG Live Development Server is running on http://localhost:4200. **
Hash: 42719064a38e70d210ec
Time: 8914ms
chunk    (0) polyfills.bundle.js, polyfills.bundle.map <polyfills> 232 kB (4) [initial] [rendered]
chunk    (1) main.bundle.js, main.bundle.map <main> 3.96 kB (3) [initial] [rendered]
chunk    (2) styles.bundle.js, styles.bundle.map <styles> 9.71 kB (4) [initial] [rendered]
chunk    (3) vendor.bundle.js, vendor.bundle.map <vendor> 2.62 MB [initial] [rendered]
chunk    (4) inline.bundle.js, inline.bundle.map <inline> 0 bytes [entry] [rendered]
webpack: Compiled successfully.
```

After running this command you will not get back to command prompt, because your live server is running.

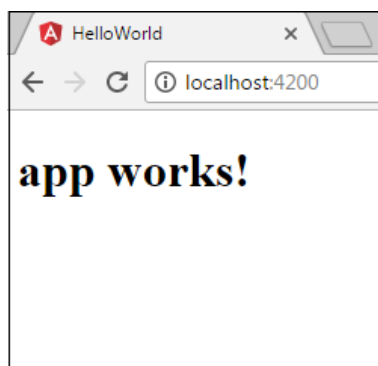
After this do not close command prompt, if you close command prompt your server process will end, you will and able to run your localhost.

You can terminate this server process by using **Ctrl+C**.

Use following url in your browser's address bar and hit enter.

http://localhost:4200

You will see this page.



After conformation of your project is working properly you are ready to write Hello world program. Before that understand on more thing i.e. component, because in angular 2 everything is component based.

In Angular 2, “everything is a component.” Components are the main way we build and specify elements and logic on the page, through both custom elements and attributes that add functionality to our existing components.

Note: To know more about component see my tutorial on Component.

To create a component

Open a new command prompt, keep your previous command prompt as it is.

Change your directory to your project’s working directory using following command.

```
C:\> cd /d c:\helloworld
```

```
C:\helloworld>
```

Now create new directory here

```
C:\helloworld>mkdir component
```

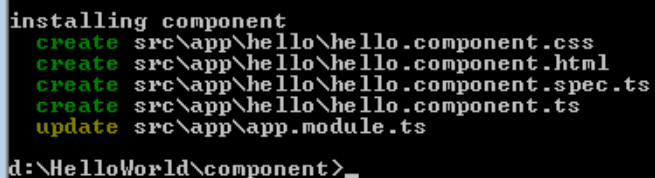
Change directory to component directory using following command

```
C:\helloworld>cd component
```

```
C:\helloworld\component>
```

Now create component

```
C:\helloworld\component>ng g c hello
```

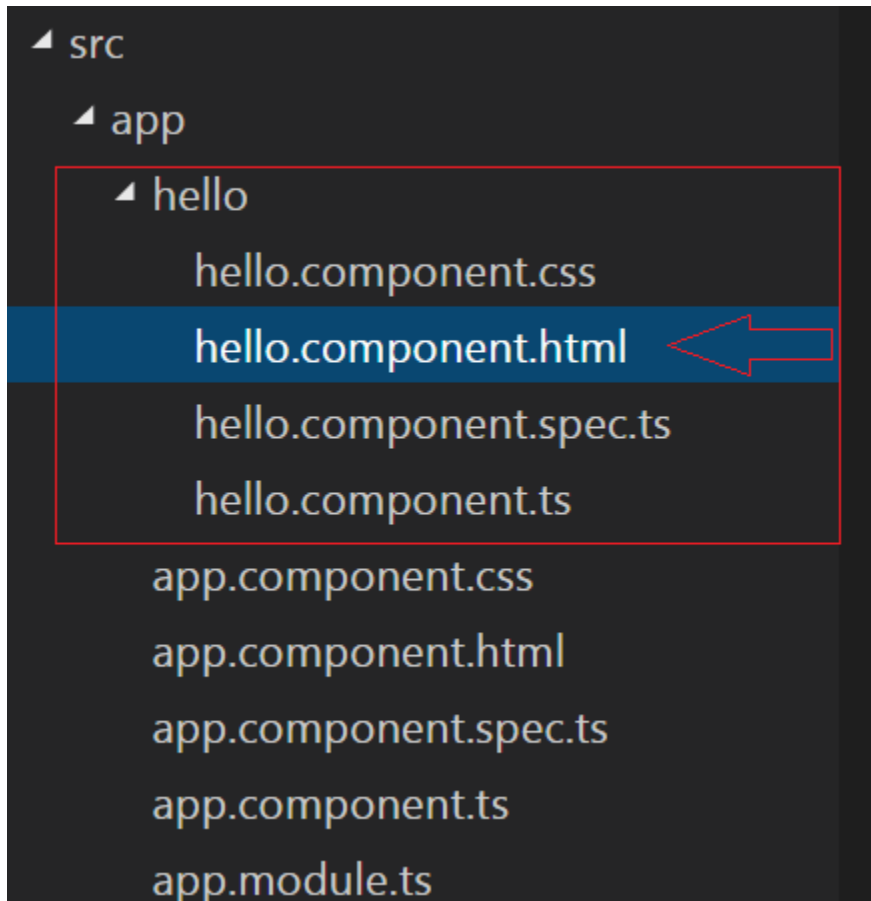


```
installing component
create src\app\hello\hello.component.css
create src\app\hello\hello.component.html
create src\app\hello\hello.component.spec.ts
create src\app\hello\hello.component.ts
update src\app\app.module.ts
d:\HelloWorld\component>_
```

Open Editor

Refresh the explorer

You will see following directory and files in you project that is your component.



Open `hello.component.html` file

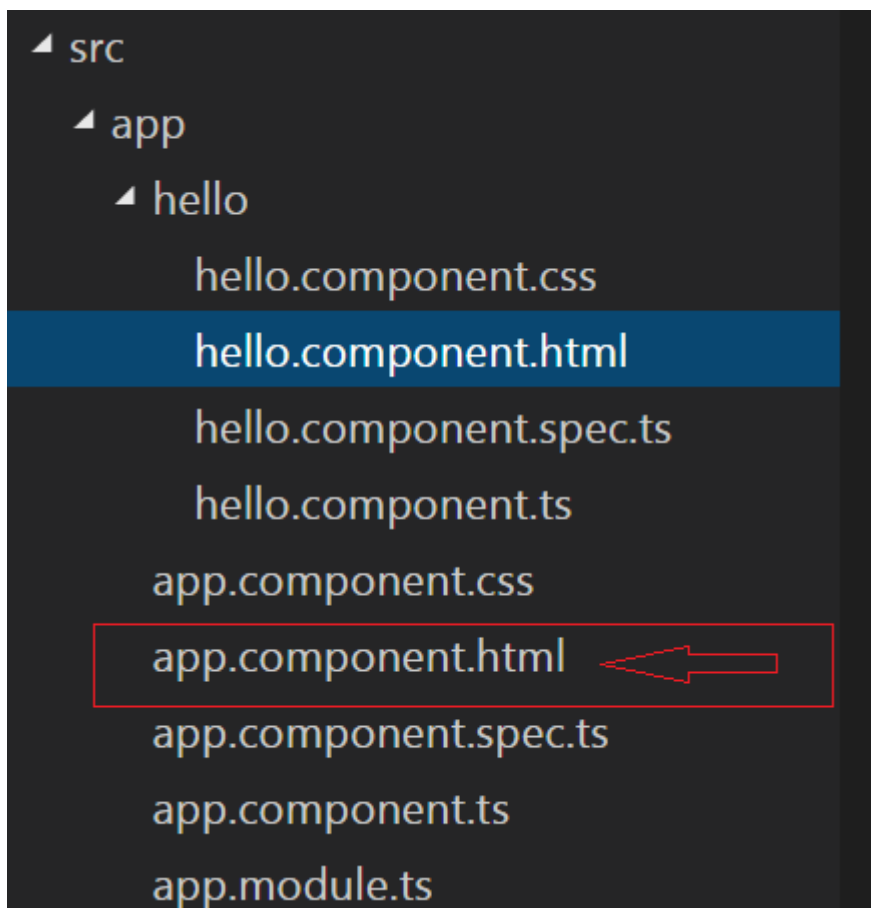
```
<p>
  hello works!
</p>
```

And make changes

```
<p>  
  hello World!  
</p>
```

Save changes.

Open `app.component.html`

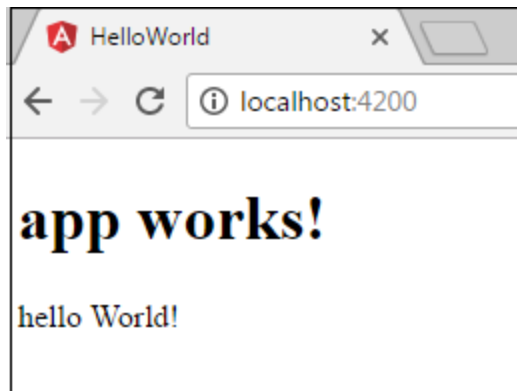


Call the selector as shown below


```
h1>  
  {{title}}  
</h1>  
<app-hello></app-hello>
```

Save changes.

Open your browser you will see following output.



Note: To know more about each files in your project and see my tutorial on angular 2 project files.