Angular (A JavaScript Framework)

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Installing Angular

Open up the terminal (or the terminal panel in VSCode) and enter the following command:

```
npm install -g @angular/cli@17
```

Angular commands begin with the keyword ng (for A-ng-ular), and the most commonly used include:

- ng new: Creates a new Angular project in the current directory. The shortcut syntax is ng n.
- ng generate: Creates new files within an existing project. The shortcut syntax is ng g.
- ng serve: Compiles a project and launches it in a form that can be displayed in a browser.

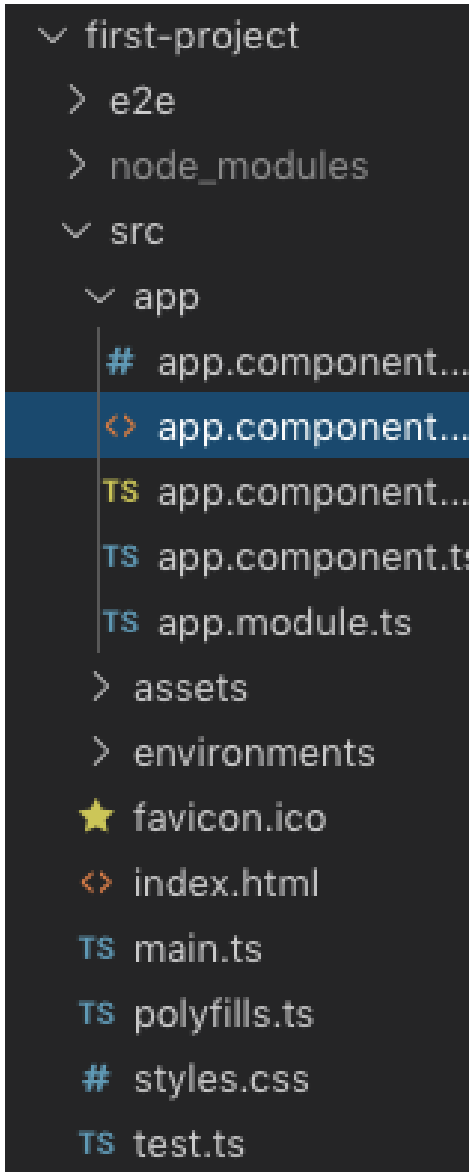
Starting a New Project

- Create a new directory called angular_exercise
- Navigate into the new folder and create a new angular project – ng new <project-name>

```
? Would you like to add Angular routing? No
? Which stylesheet format would you like to use? (Use arrow keys)
❯ CSS
  SCSS   [ http://sass-lang.com/documentation/file.SASS_REFERENCE.html#syntax ]
  Sass   [ http://sass-lang.com/documentation/file.INDENTED_SYNTAX.html       ]
  Less   [ http://lesscss.org                                                 ]
  Stylus [ http://stylus-lang.com                                             ]
```

Angular File Structure

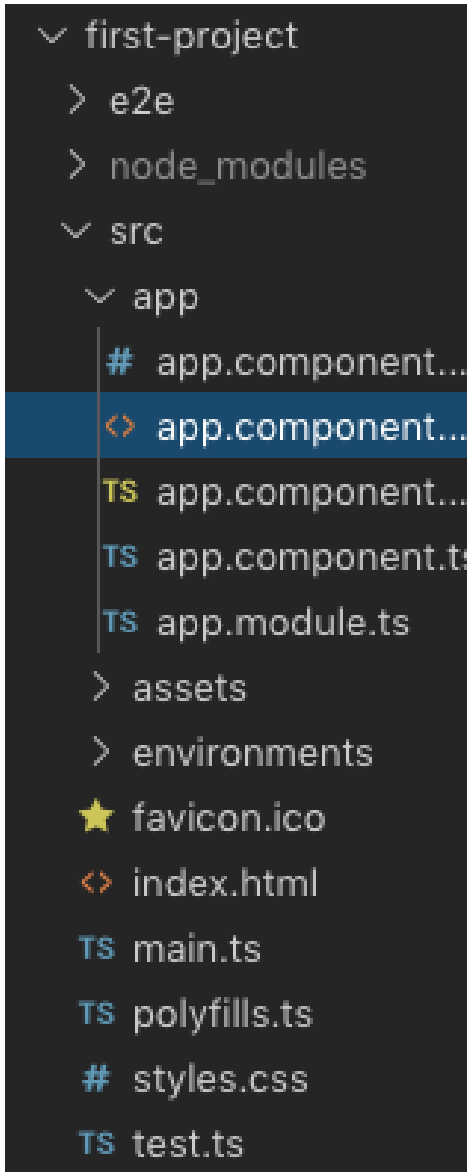
1. **src folder** holds the files and source code needed for the project.
2. **app folder** holds the content for the web page. Although the page is treated as a single entity, it actually consists of multiple pieces. app holds these different parts and establishes links between them. We will modify some of these files soon.
3. **index.html** is the highest level for displaying content. Anything added to this HTML file will appear on every page within a website.
4. **main.ts** imports the core methods required to make everything work. It also imports the content from the app folder.
5. **styles.css** holds the global style settings for the entire website.



What To Ignore

For now, however, leave the following alone:

- main.ts, test.ts, and polyfills.ts. Don't edit!
- The e2e, node_modules, and environments folders. Don't edit!
- .json files. Don't edit!
- The assets folder is "somewhat editable". It holds user defined files that support a project. Examples include JavaScript code, images, gifs, or video clips.



Launch the Project

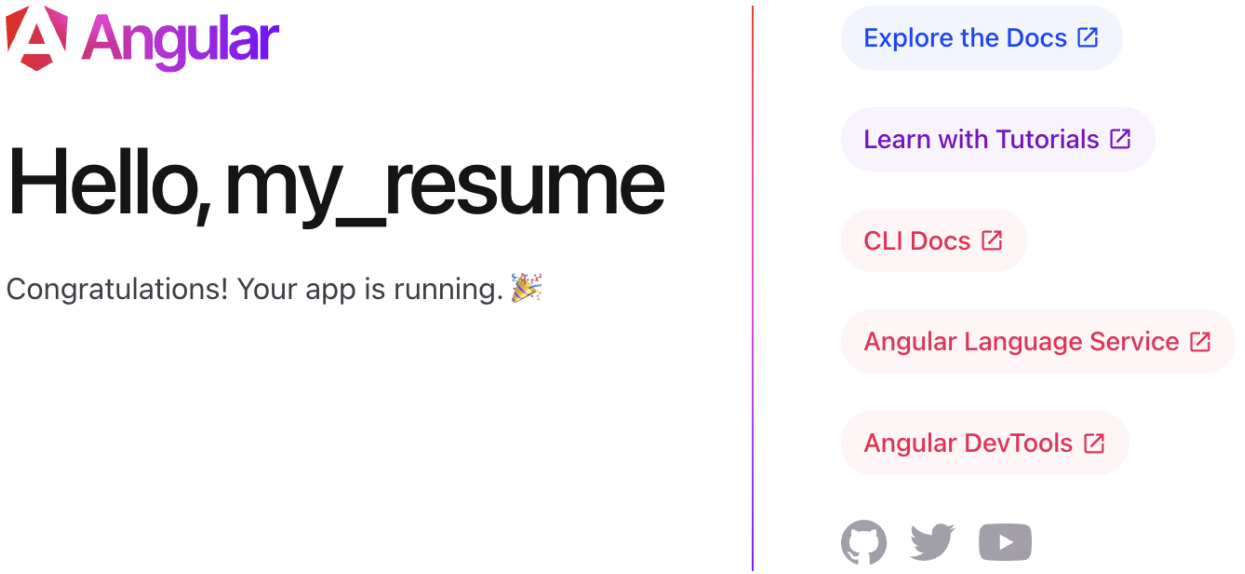
ng serve

- allows you to view your project in a browser by running a series of tasks in the background. It's NOT magic, just the tedious mechanics that you don't need to set up yourself.

The command performs these tasks:

- Compiles and analyzes your Angular files to build HTML and JavaScript files that can be run in a browser.
- This step will throw errors if you try to serve code that contains syntax or other errors.
- You will learn more about the different types of files that are compiled in the coming sections.
- Starts a web server on your computer that serves the built version of your Angular project.
- The Angular project is viewable at the web address http://localhost:4200

Localhost Default



The Angular Framework

In VSCode, navigate to the src folder, open the index.html file, and examine the code:

Extension: Angular Language Service | index.html

src > index.html > ...

```html
<!doctype html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <title>MyResume</title>
  <base href="/">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="icon" type="image/x-icon" href="favicon.ico">
</head>
<body>
  <app-root></app-root>
</body>
</html>
```

The app folder

- app.component.html
- app.component.ts
- app.module.ts

app.module.ts

```
import { BrowserModule } from '@angular/platform-browser';
import { NgModule } from '@angular/core';

import { AppComponent } from './app.component';

@NgModule({
   declarations: [ AppComponent ],
   imports: [ BrowserModule ],
   providers: [],
   bootstrap: [AppComponent]
})
export class AppModule { }
```

The app folder

- app.component.html
- app.component.ts
- app.module.ts

app.component.html

```
<div style="text-align:center">
   <h1>
      Welcome to {{ title }}!
   </h1>
   <img width="300" alt="Angular Logo" src="image path...">
</div>
<h2>Here are some links to help you start: </h2>
<ul>
   <!-- List items here... -->
</ul>
```

The app folder

- app.component.html
- app.component.ts
- app.module.ts

app.component.ts

```
import { Component } from '@angular/core';

@Component({
   selector: 'app-root',
   templateUrl: './app.component.html',
   styleUrls: ['./app.component.css']
})
export class AppComponent {
   title = 'my-project-name';
}
```

Modify the HTML / TS components

Edit app.component.ts

declare and assign two variables in the **AppComponent** class---**name** and **itemList**.

- **name** holds your name.
- **itemList** is an array holding at least 4 items.

```
export class AppComponent {
   name: string = 'Barbara Liskov';
   itemList: string[] = ['item1', 'item2', 'item3', 'item4'];
}
```

Edit app.component.html

Display your name using <h1> with a welcome message.
Using ** ** display the itemList declared in **app.component.ts**.

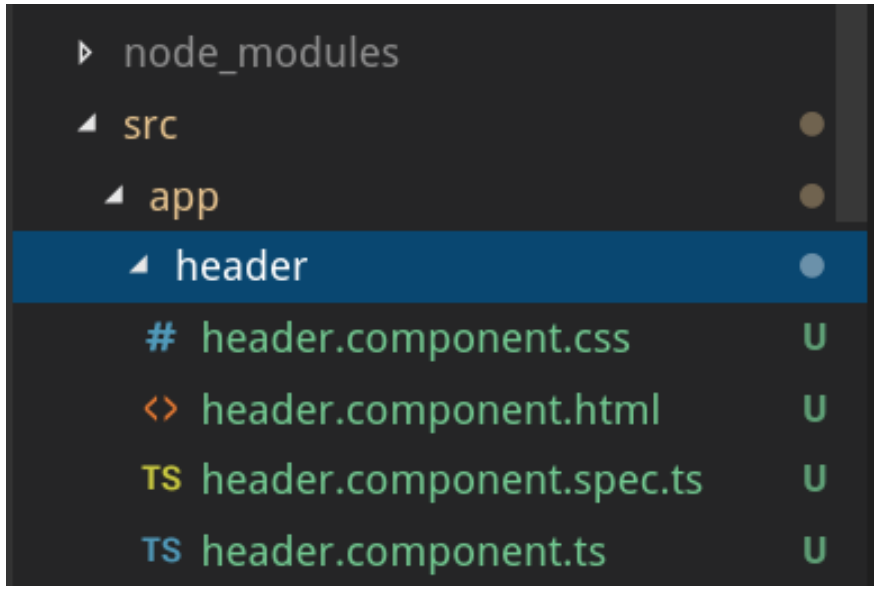
COMPONENTS

Angular components consist of 4 files:

- an HTML file (.html)
- a CSS file (.css)
- a typescript file (.ts)
- a test file (.spec.ts)

To create a new component:

ng generate component <component-name>



Create the following components

- personal-info
- education
- work-experience
- training
- references

**Explore the use, placement of components in an angular project.

**Create a subcomponent under training, call it skills-certification

Create your Resumé

- Use the same project and components.
- Design your CV with all the components indicated
- Use appropriate layout, colors