Folder Structure of Angular

Folder structure of Angular Application :

After Complete Installation of Angular We run a Command npm i (node package manager install) it will creates three folder (e2e, node_modules and src) and many configuration files.

1) e2e Folder :

- e2e stands for end–to-end testing.
- This is not testing for your application functionality.
- It is used for testing the user behavior when it is deployed on the production server.
- It means it will monitor who visit your application,
- Which user login your application,
- How much time they stay in your application,
- How much pages a user visits within your application and
- When the user logout from your application.
- e2e folder have its own src folder.

2) node_modules Folder :

- When we do npm i that time node_modules folder is created.
- This folder contains all libraries which installed into your application .
- If we install any third-party packages then also their folders stored within node_modules folder.
- e.g we install bootstrap libraries those all are store in node_modules folder.
- If we want to moving our project into new location, then no need to add include this folder because we can use npm i and it will creating by default.

3) src Folder :

- This is a source folder of angular Application
- It will contain all source code of angular application.
- Every component, service class, modules, everything we need to put in same folder.
- Whenever create a project angular framework create lots of files and packages.
- src folder contain many subfolders.

3.1) app Folder :

- This is a application folder.
- When we want to create any Component, Services or module we can create in app folder.
- In app folder there is one AppComponent created by default and it have 7 files.
- As we can see there is by default one component (app.component.ts) and one module (app.module.ts).
- Angular application should have at least one module and one component.
- app.component.css → we can use it for applying CSS on particular DOM element.
- app.component.html → we can use it for design UI side part using html.
- app.component.spec.ts → this file is usable for testing purpose.
- app.component.ts → we can write all business logic in this file.
- app.module.ts → we can use import packages, declare component in same file.
- app.routing-module.ts → Its used for routing your angular application.

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3.2) assets Folder

- In Assets folder we can store static assets like image, videos, audios, icons etc…

3.3) environments Folder

- This folder basically used for setup different environments.
- There are two files in environment folder
  - environment.prod.ts → This file for the production environment.
  - environment.ts → This file is for local development environment.

3.4) favicon.ico:

- It is the icon file that display on the browser.

3.5) index.html:

- This file contains HTML code with the head and body section.
- It is the starting point of our Application.
- In this file There are all DOM elements included but
- <app-root></app-root> is a tag which helps to start the angular execution.

3.6) main.ts File

- This is the entry point for our angular application.
- If you ever worked with programming languages like Java or C or C#, then you can compare this with the main() method of such application.
- It's like an API between index.html and angular.

3.7) pollyfills.ts

- This file is basically used for browser-related configurations.
- In Angular we write Angular code using typeScript language.
- The polyfills.ts file used by the JIT compiler to compile your code in JavaScript.
- The polyfills.ts file imported the required script which is required for running an Angular application.
- This is because the angular framework uses the latest features of JavaScript which are not available in the current version of JavaScript supported by most of the browsers.
- It is mainly used for backward compatibility.

3.8) style.css :

- In this file we can apply styles on globally.
- Means we can declare ones but used it everywhere in your project.
- It should be apply Globally on DOM elements.

3.9) tests.ts :

- This file is used for unit testing bye QA/Dev team.
- We can check all the functionalities area working proper or not.

4) .editorconfig :

- This file is basically used to set up the team environment.
- In real-time, many developers may work on a single project.
- And each developer may follow different coding standards to declare variables, classes, style, size of each character, length, etc.
- But in the end, we need to merge the code of each developer to produce the final product.
- At that time, it may produce some error or messy code as each developer having different coding standards.
- In order to solve this problem, the editorconfig file is used where the standard rules are defined which needs to be followed by the developers in teamwork.

5) .gitignore file :

- The files which you want to ignore in the git repository, you need to put within this gitignore file.

6) angular.json file

- It contains all the configuration of your Angular Project.
- It contains the configurations such as what is the project name,
- What is the root directory as source folder (src) name which contains all the components, services, directives, pipes,
- what is the starting point of your angular application (index.html file),
- What is the starting point of typescript file (main.ts), etc.

7) browserslist

- This file is used by the build system to adjust CSS and JS output to support the specified browsers
- You can see what browsers were selected by your queries by running.

8) test.ts

- This file files is used for testing purpose.
- The tester will write the unit test cases for testing the project.

9) karma.config.ts

- This file is use for store the test cases.
- It has a configuration for writing unit tests.
- Karma is the test runner and it uses jasmine as a framework.
- Both tester and framework are developed by the angular team for writing unit tests.

10)package-lock.json

- This file is generated after npm i.
- This file has detailed information about all dependencies, packages are available in angular project.

11)package.json

- This is a mandatory file for every project in Angular.
- Because it contains basic information about the project (name, description, license, etc).
- It contains dependencies, commands, access Specifier and devDependencies.

13)README.md file

- This file contain basic description about project.
- This file contains the basic documentation for your project, also contains some pre-filled CLI command information.

15)tsconfig.app.json

- This file is used during the compilation of your application
- and it contains the configuration information about how your application should be compiled.

16)tsconfig.json

- This file contains the configurations for typescripts.

17)tsconfig.spec.json

- This file is used for testing purposes in the node.js environment.
- It also helps in maintaining the details for testing.

18)tslint.json

- This is a tool useful for static analysis
- that checks our TypeScript code for readability, maintainability, and functionality errors.