Angular Js App Structure

Agenda

- **The Application shell**
- **Creating & Serving new app**
- **Project structure**
- **Src folder**
- **Other folders**

The Application Shell- create new app

1) Install the Angular CLI

- npm install -g @angular/cli

2) Create a new application

- The Angular CLI is a command line interface tool that can
  - create a project,
  - add files,
  - performs testing,
  - bundling, and
  - deployment.
- ng new student-info

The Application Shell- serving app

- **Serve the application**
  - cd student-info
  - ng serve --open
- **The ng serve command**
  - builds the app,
  - starts the development server,
  - watches the source files, and rebuilds the app as you make changes to those files.
- **The --open flag opens a browser to http://localhost:4200/**

Angular components

- **Components are the fundamental building blocks of Angular applications.**
  - display data on the screen,
  - listen for user input, and
  - take action based on that input.

Project Structure

Name		Size	Type	Modified
angular.json		3.6 kB	Text	07:01
e2e		3 items	Folder	07:01
node_modules		810 items	Folder	07:05
package.json		1.3 kB	Text	07:04
package-lock.json		369.5 kB	Text	07:05
README.md		1.0 kB	Text	07:01
src		14 items	Folder	07:01
tsconfig.json		384 bytes	Text	07:01
tslint.json		2.8 kB	Text	07:01

The src folder

- **All Angular components, templates, styles, images go here.**

- **Any files outside of this folder are meant to support building your app.**

The src folder

Name	Size	Type	Modified
app	5 items	Folder	07:01
assets	0 items	Folder	07:01
browserslist	375 bytes	Text	07:01
environments	2 items	Folder	07:01
favicon.ico	5.4 kB	Image	07:01
index.html	298 bytes	Text	07:01
karma.conf.js	964 bytes	Program	07:01
main.ts	370 bytes	Text	07:01
polyfills.ts	3.2 kB	Text	07:01
styles.css	80 bytes	Text	07:01
test.ts	642 bytes	Text	07:01
tsconfig.app.json	194 bytes	Text	07:01
tsconfig.spec.json	282 bytes	Text	07:01
tslint.json	314 bytes	Text	07:01

The src folder

- **app/app.component. {ts,html,css,spec.ts}**
  - Defines the AppComponent along with an HTML template, CSS stylesheet, and a unit test.
  - It is the root component of what will become a tree of nested components as the application evolves.
- **app/app.module.ts**
  - Defines AppModule, the root module that tells Angular how to assemble the application.

The src folder

- **Assets**/*
  - images and other resource.
- **environments**/*
  - file for each of destination environments, each exporting simple configuration variables to application.
  - The files are replaced on-the-fly when we build the app.

Browserslist, icon & index.html

- **browserslist**
  - A configuration file to share target browsers between different front-end tools.
- **favicon.ico**
  - Bookmark bar icon.
- **index.html**
  - The main HTML page.
  - The CLI automatically adds all js and css files when building your app so no need to add any <script> or <link> tags manually.

The src folder

- **karma.conf.js**
  - Unit test configuration for the Karma test runner, used when running ng test.

- **main.ts**
  - The main entry point for app.
  - Compiles the application with the JIT compiler and bootstraps the application's root module (AppModule) to run in the browser.

The src folder

- **polyfills.ts**
  - Different browsers have different levels of support of the web standards.
  - Polyfills help normalize those differences.
- **styles.css**
  - global styles go here.

The src folder

- **test.ts**
  - main entry point for your unit tests.
- **tsconfig.{app|spec}.json**
  - TypeScript compiler configuration for the Angular app (tsconfig.app.json) and for the unit tests (tsconfig.spec.json).
- **tslint.json**
  - Additional Linting configuration for TSLint together with Codelyzer, used when running ng lint. Linting helps keep your code style consistent.

Other folders

- **e2e**/
  - end-to-end tests with own tsconfig.e2e.json
  - a separate app that test main app.
- **node_modules**/
  - Node.js creates this folder and puts all third party modules listed in package.json inside of it.

Other folders

- **.editorconfig**
  - Simple configuration for editor to make sure everyone that uses project has the same basic configuration.

- **.gitignore**
  - Git configuration to make sure autogenerated files are not committed to source control.

Other folders

- **angular.json**
  - Configuration for Angular CLI.
- **package.json**
  - npm configuration listing the third party packages.
- **protractor.conf.js**
  - End-to-end test configuration for Protractor, used when running ng e2e.

Other folders

- **README.md**
  – For project documentation.
- **tsconfig.json**
  – TypeScript compiler configuration for IDE to pick up and give helpful tooling.
- **tslint.json**
  – Linting configuration for TSLint together with Codelyzer, used when running ng lint for consistent style.

Resources

- **https://angular.io/**