

Getting Started

(Angular)

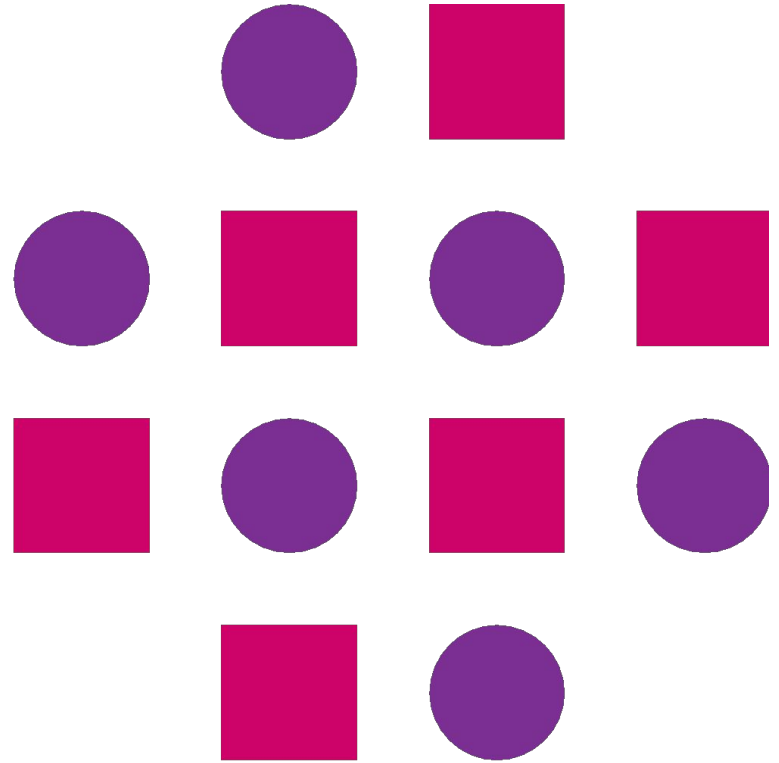
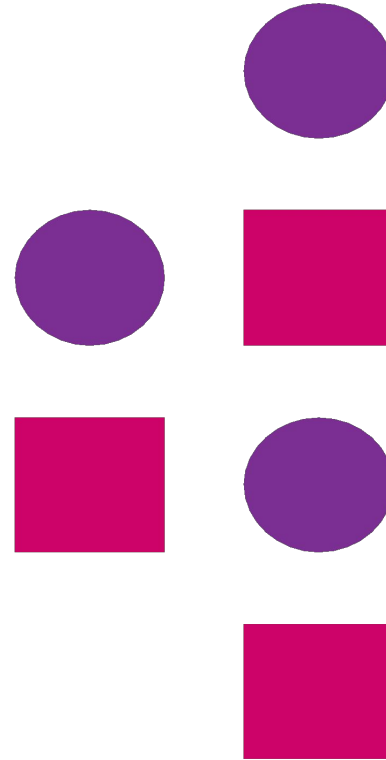


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Environment Setup

(Angular)

Environment Setup

- Hardware System Requirements
- Common tools (for Linux and Windows)
- Linux
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- Windows
 - Software Requirements
 - Installations

Hardware Requirements

- CPU
 - x86 or x64 (Recommended Intel i3 or higher)
 - ARM v6, v7 or v8
 - AMD A4 or higher
- RAM - 1GB or higher (Recommended 2GB)
- HDD - Available space 8GB or higher (Depends on size of your source code, storage required for development and test tools, number of work-spaces and backups)

Common Tools

- NPM (Node Package Manager)
- NVM (Node Version Manager)
- Visual Studio Code
- Angular-IDE
- Bracket
- Browser (Google Chrome or Mozilla FireFox)
- Online Tools



Linux (Angular)

Software Requirements

- Ubuntu 14.04 LTS or higher
 - Recommended (16.04 LTS)
- Node.js (8.9.1 LTS)
- Express.js (4.16.1)
- Angular (4 or higher)
- MongoDB

Installing NVM

- To install or update nvm, you can use the install script using cURL
 - `$ curl -o- https://raw.githubusercontent.com/creationix/nvm/<version number>/install.sh | bash`
 - Version Examples : v0.33.6 or v0.25.0
- The script clones the nvm repository to ~/.nvm and adds the source line to your profile
 - (~/.bash_profile, ~/.zshrc, ~/.profile, or ~/.bashrc)
- Set NVM Directory
 - `$ export NVM_DIR="$HOME/.nvm"`

Load NVM

<https://github.com/creationix/nvm>

Installing NVM

- After running the install script, if you get
 - nvm: command not found
- Type
 - `$ command -v nvm`
- Simply close your current terminal, open a new terminal, and try verifying again
- If the above doesn't fix the problem, open your `.bash_profile` and add the following line of code:
 - `$ source ~/.bashrc`

Installing build tools

- To compile and install native addons from npm you may also need to install build tools
- `$ sudo apt-get install -y build-essential`

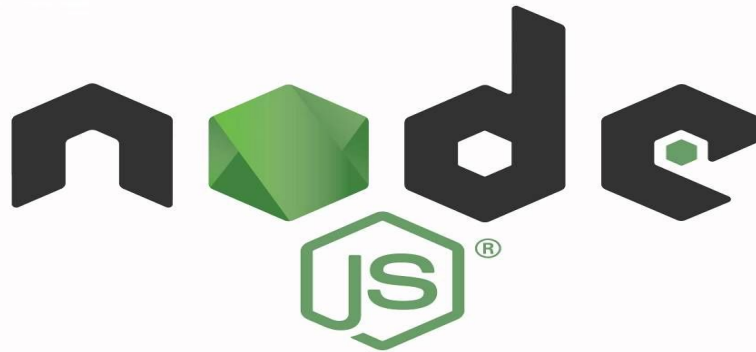
Installing NPM

- Run following command
 - `$ curl https://npmjs.org/install.sh | bash`
- To update to the latest version of NPM
 - `$ sudo npm install npm -global`
 - or
 - `$ npm i -g npm`
- Verify NPM version
 - `$ npm -v`



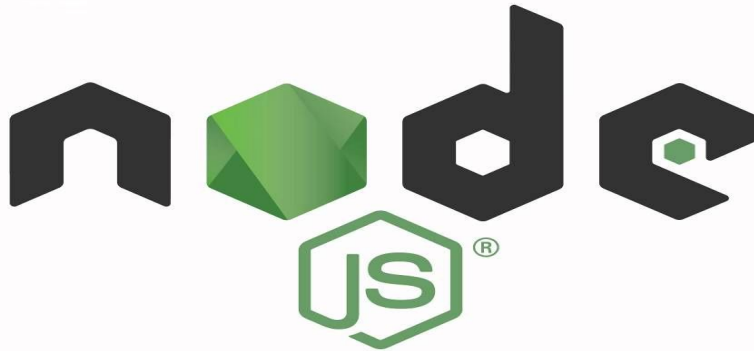
Installing Node

- `$ nvm install <node version>`
- `$ nvm use <node version>`
- Example:
 - `nvm install 8.9.1`
 - `nvm use 8.9.1`



Verify Node version

- Verify node version
 - `$ node -v`
- To check current node version
 - `$ nvm current`



Initialize NPM

- Creates a package.json in root for you
 - `$ npm init`

Uninstall Node & NPM

- Uninstall Node.js
 - `$ sudo apt-get remove --purge node`
- Uninstall NPM:
 - `$ sudo npm uninstall npm -g`

Installing npm-check

- Used to check installed packages
 - `$ npm install -g npm-check`
- Usage
 - `$ npm-check -g -u`

Installing Angular CLI

- Angular CLI has a minimum requirement of
 - Node 6.9.0 or higher
 - Together with NPM 3 or higher
- Installing Angular CLI
 - `$ npm install -g @angular/cli`
- Verify Angular CLI version
 - `$ ng -v`
- To update Angular CLI to a new version
 - `$ npm install -g @angular/cli@latest`

Installing Typescript

- Installing typescript transpiler
 - `$ npm install -g typescript`
- Verify typescript version
 - `$ tsc -v`
- Installing specific version of typescript
 - `$ npm install -g typescript@<version number>`
- Example :
 - `$ npm install -g typescript@2.1.6 --save`
- Recommended typescript version - v2.1.6 or higher

Listing Installed packages

- Run following command to get summary of global packages
 - `$ npm list -g --depth 0`
- To list all the global packages
 - `$ npm list -g`
- To list local packages
 - `$ npm list`

Visual Studio Code

- Download URL
 - <https://code.visualstudio.com/>
- Installation
 - `$ dpkg -i <filename>.deb`
- Or double click the .deb package and use GUI to install



Angular-IDE

- Download URL
 - <https://www.genuitec.com/products/angular-ide/>
- Installation
 - `$ npm install -g angular-ide`
 - `$ ngide install ~/Development/angular-ide`

Also visit <https://angular.io/resources> to know more about tools

Bracket

- Download URL
 - <http://brackets.io/>
- Installation
 - `$ dpkg -i <filename>.deb`
- Or double click the .deb package and use GUI to install



Angular Framework

- Installation
 - `$ npm install angular --save`
- Github URL
 - `https://github.com/angular/angular`

Express Framework

- Installation
 - `$ npm install express --save`
 - `$ npm link express`
- URL
 - `https://expressjs.com/`

Online Tools

- Plunker - <https://plnkr.co/>
- JSFiddle - <https://jsfiddle.net>
- StackBlitz - <https://stackblitz.com>



Creating First App

(Angular)

Creating First App

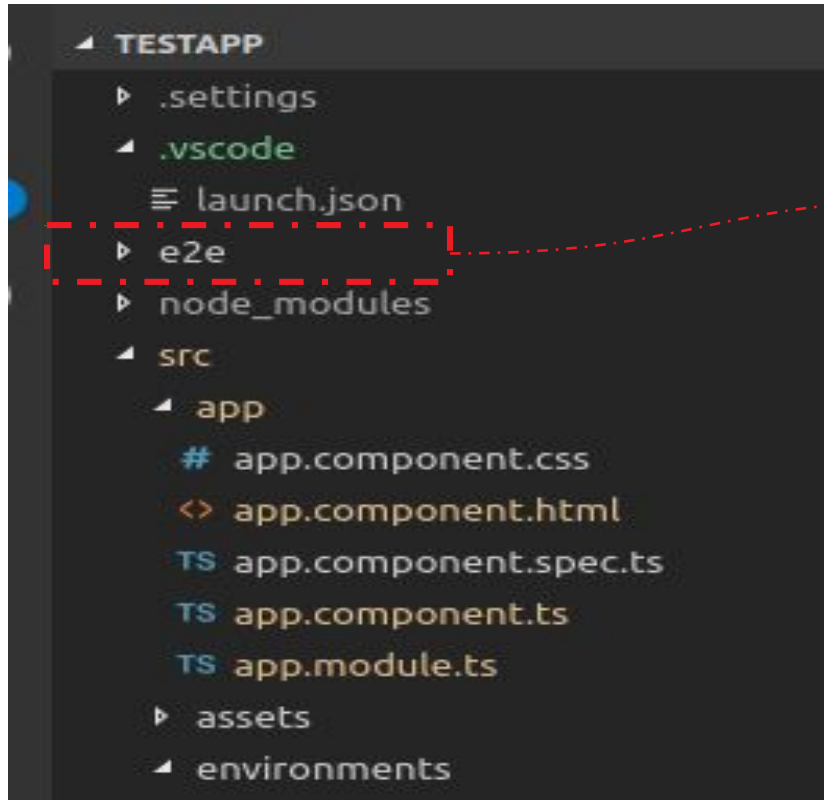
- Create a new project
 - `$ ng new helloApp`
- Go to the directory and launch the server
 - `$ ng serve --open`
- Option `--open` (or just `-o`) will automatically open browser on `http://localhost:4200/`



Directory Structure

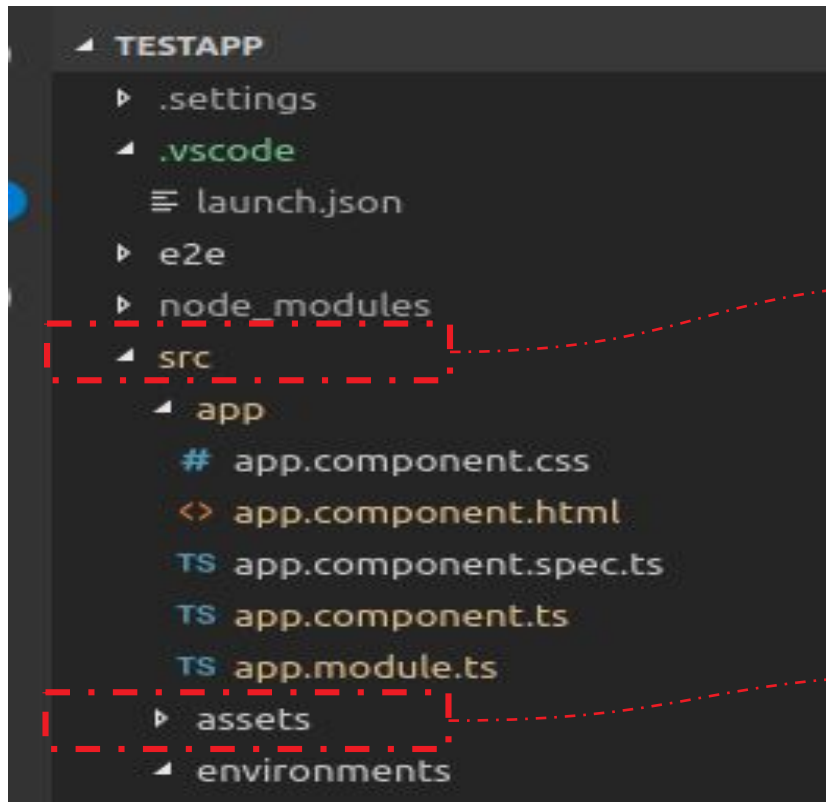
(Angular)

Directory Structure



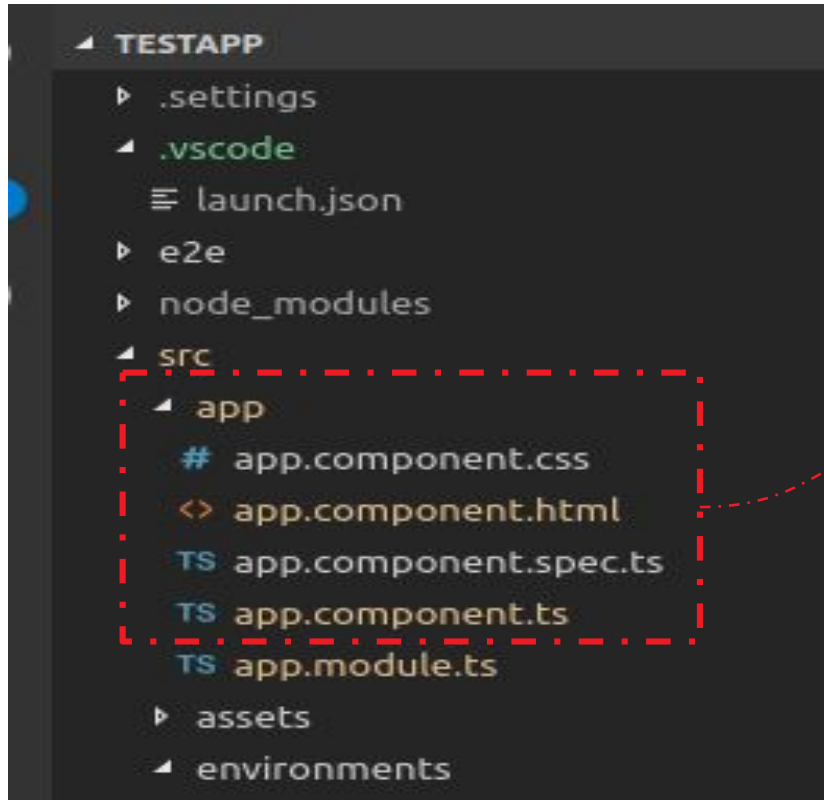
- For End to End testing

Directory Structure



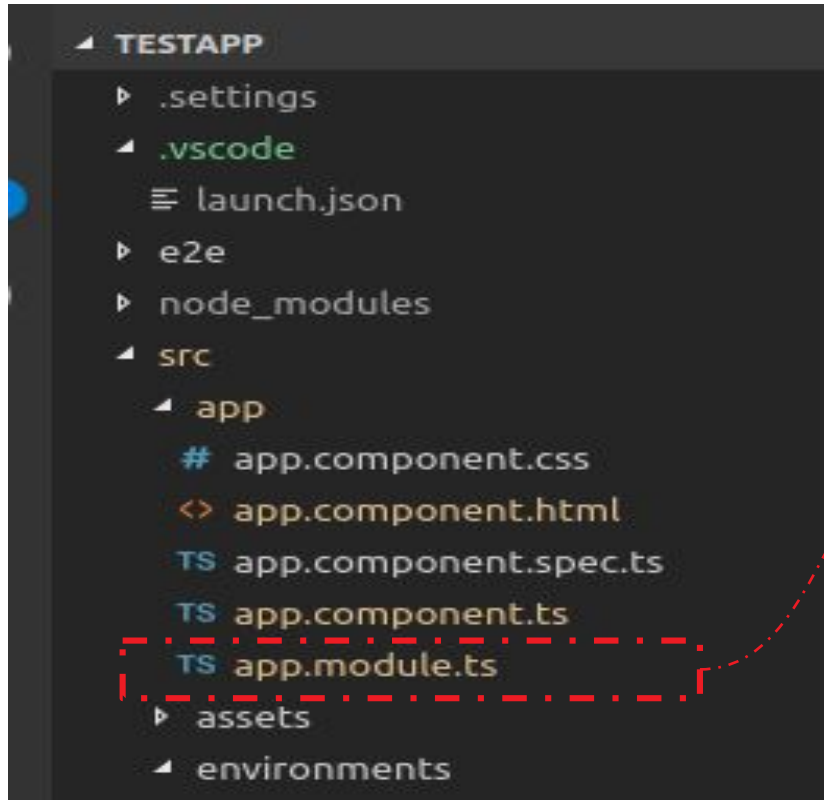
- Contains app code. All Angular components, templates, styles, images, and anything else your app needs go here
- Any files outside of this folder are meant to support building your app
- App resources such as images can be kept here

Directory Structure



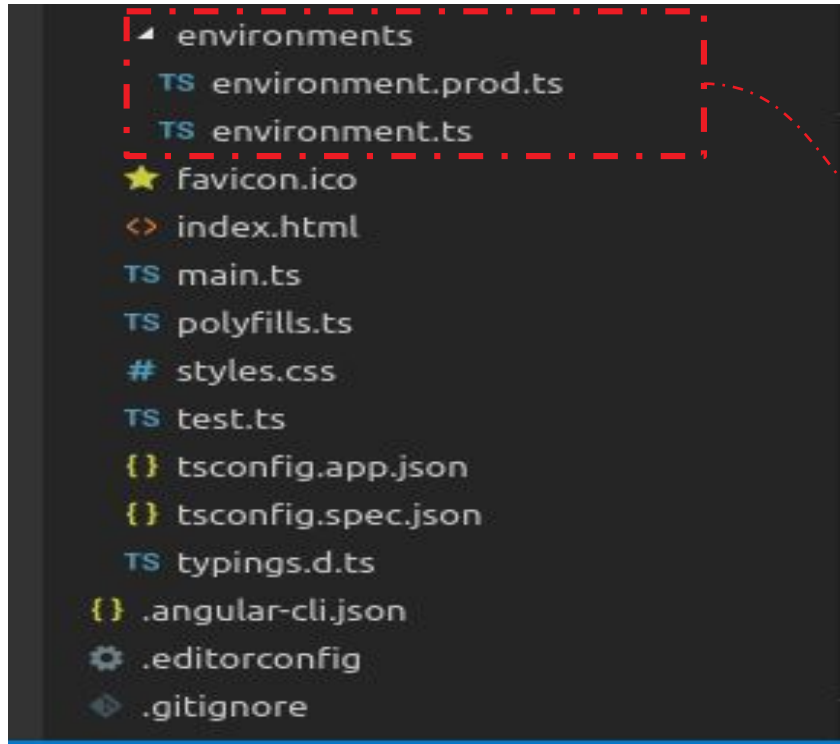
- Defines the AppComponent along with an HTML template, CSS stylesheet, and a unit test
- It is the root component of what will become a tree of nested components as the app evolves

Directory Structure



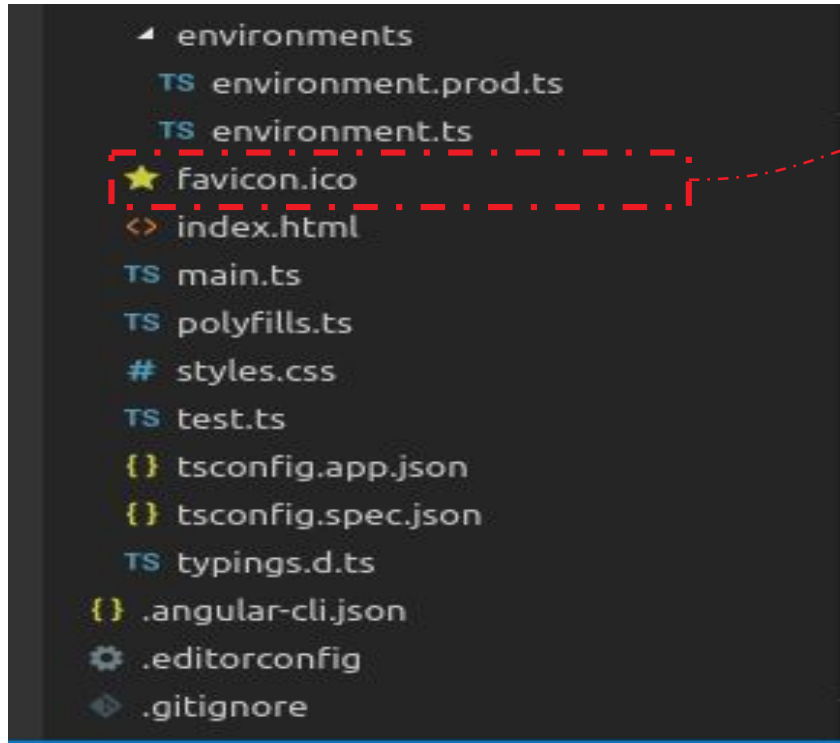
- Defines AppModule, the root module that tells Angular how to assemble the app

Directory Structure



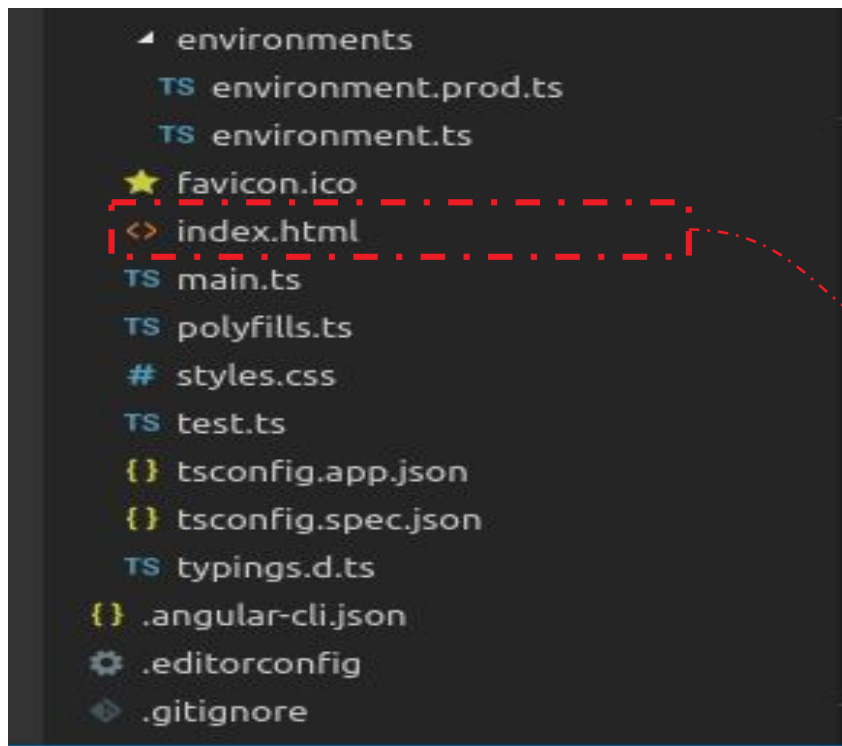
- This folder contains one file for each of your destination environments, each exporting simple configuration variables to use in your app
- The files are replaced on-the-fly when you build your app

Directory Structure



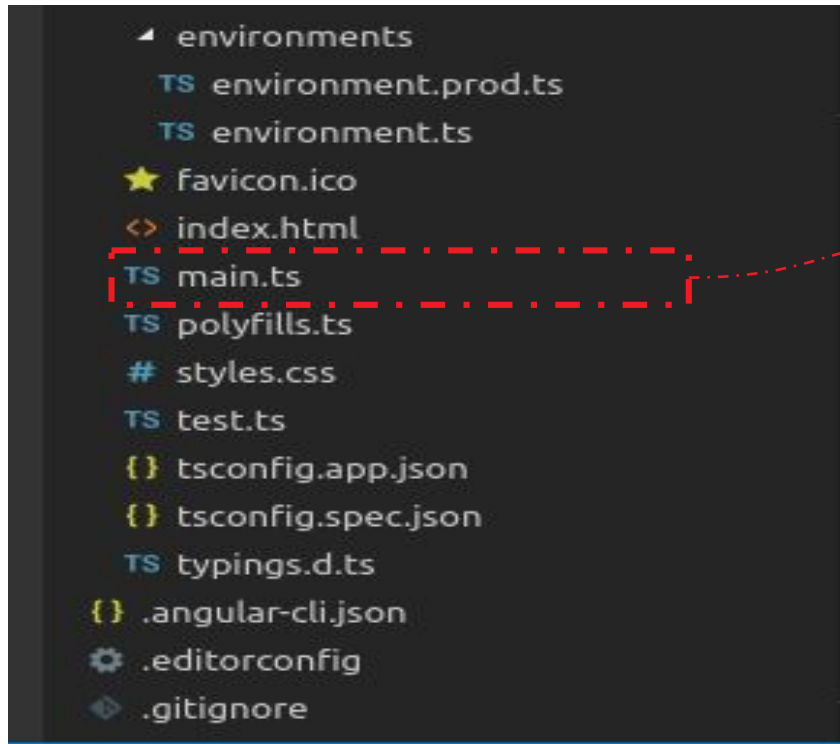
- Icon for bookmark bar

Directory Structure



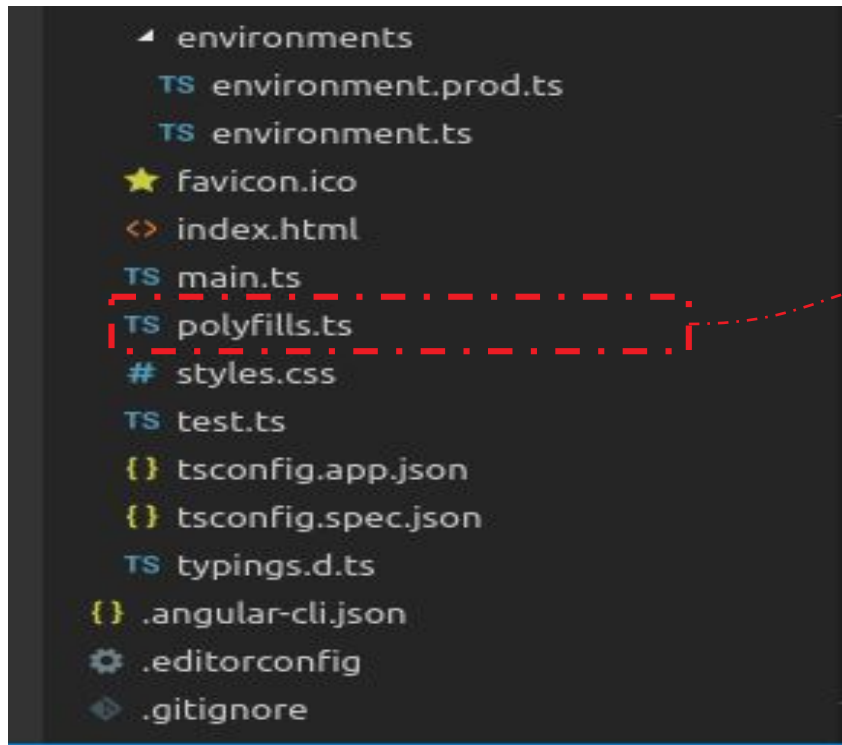
- The main HTML page that is served when someone visits your site
- Most of the time you'll never need to edit it
- The CLI automatically adds all js and css files when building your app so you never need to add any `<script>` or `<link>` tags here manually

Directory Structure



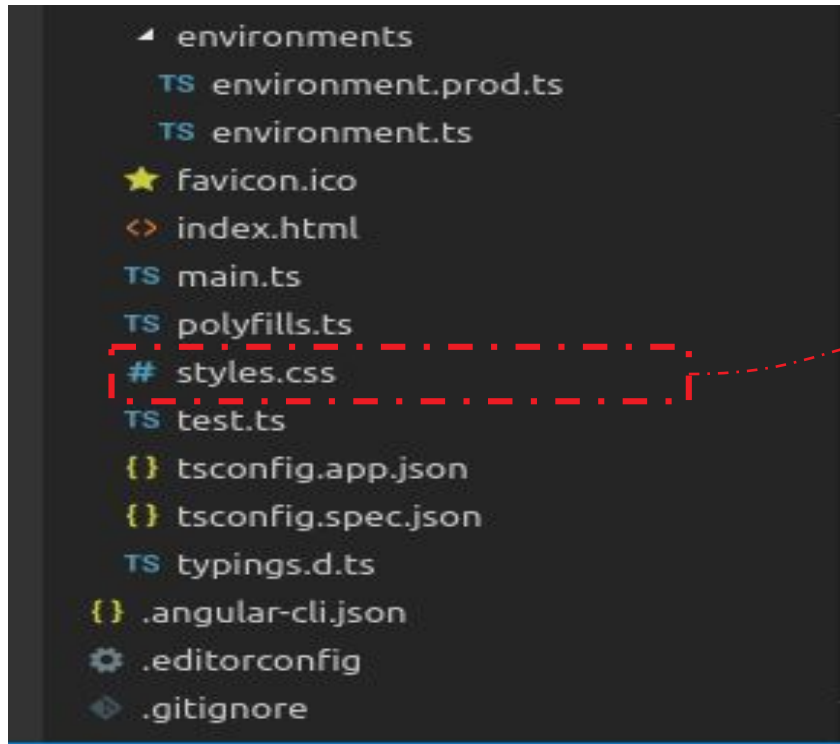
- The main entry point for your app

Directory Structure



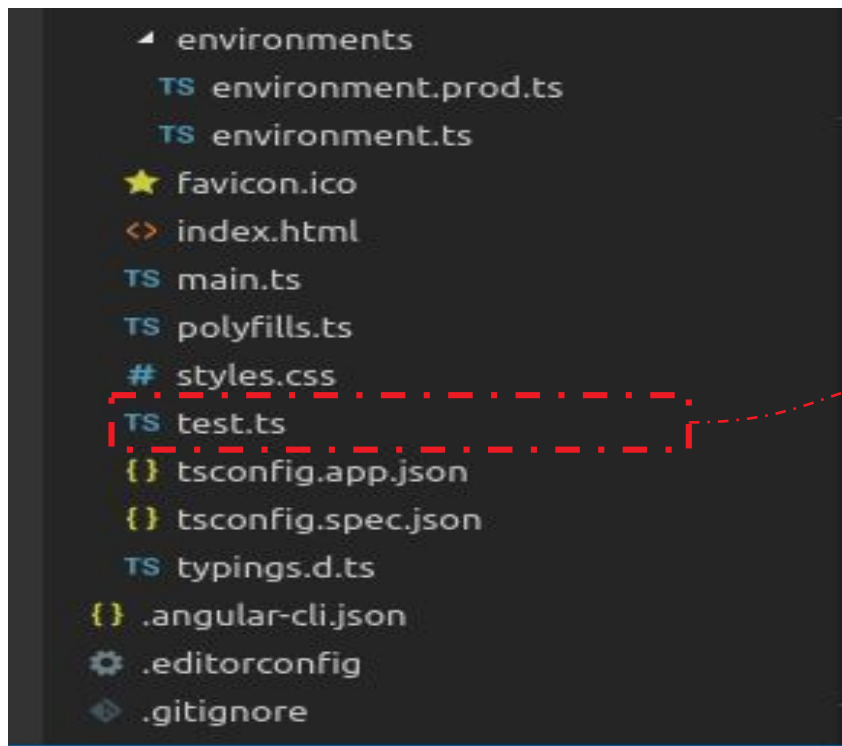
- Different browsers have different levels of support of the web standards
- Polyfills help normalize those differences

Directory Structure



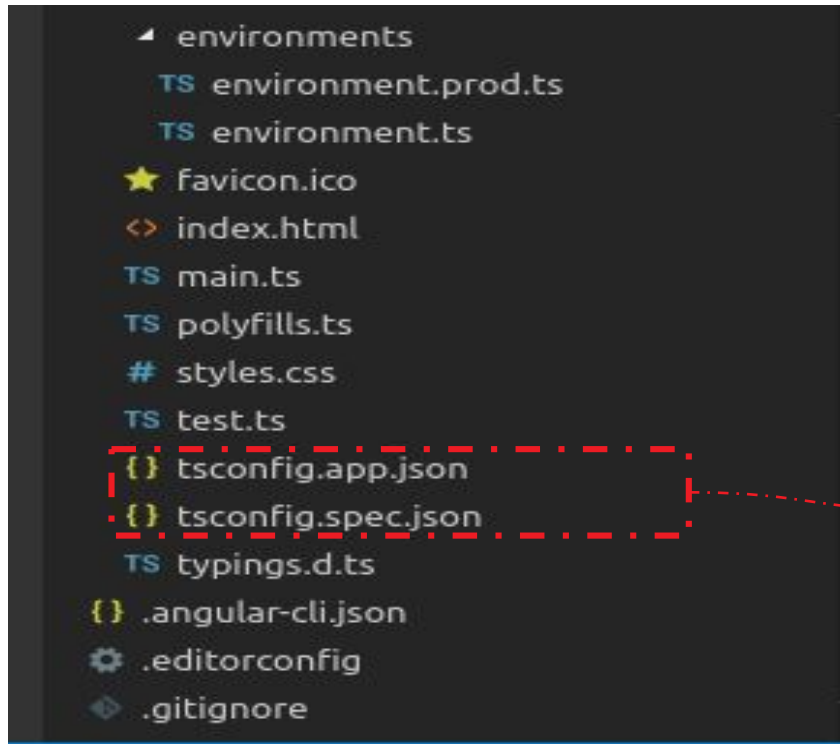
- Global styles that affect all of your app need to be in a central place

Directory Structure



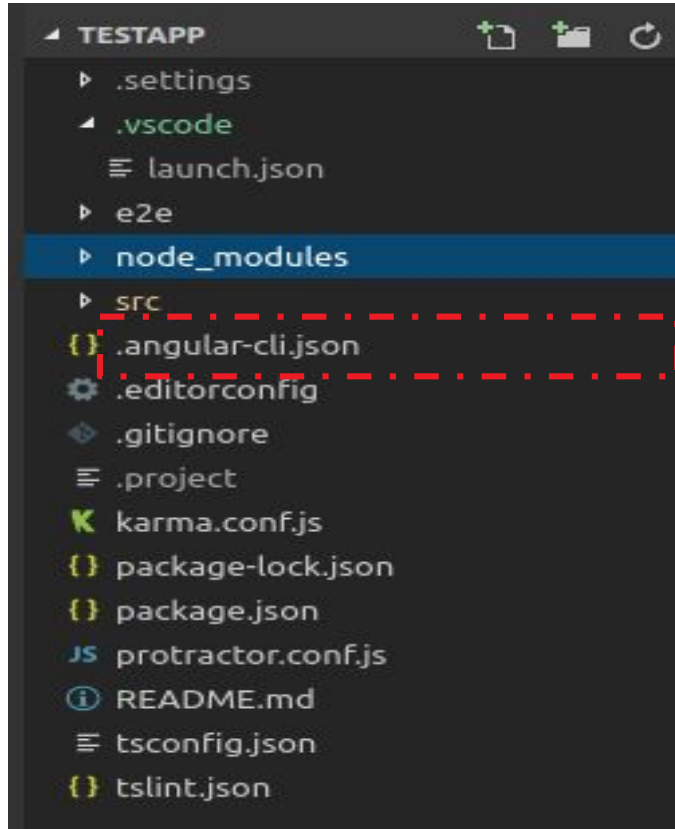
- This is the main entry point for your unit tests
- It has some custom configuration that might be unfamiliar, but it's not something you'll need to edit

Directory Structure



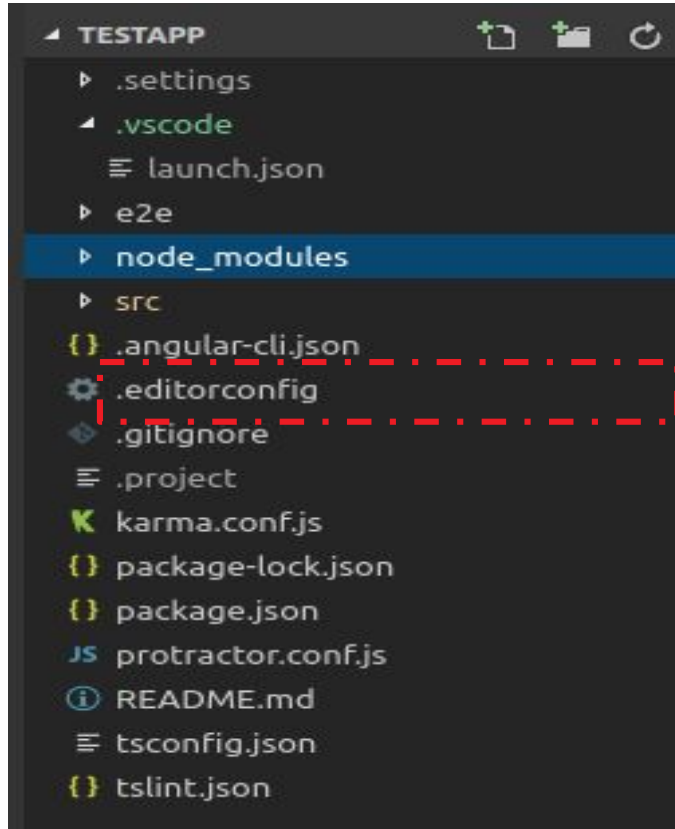
- TypeScript compiler configuration for
 - ✓ Angular app (tsconfig.app.json)
 - ✓ Unit tests (tsconfig.spec.json)

Directory Structure



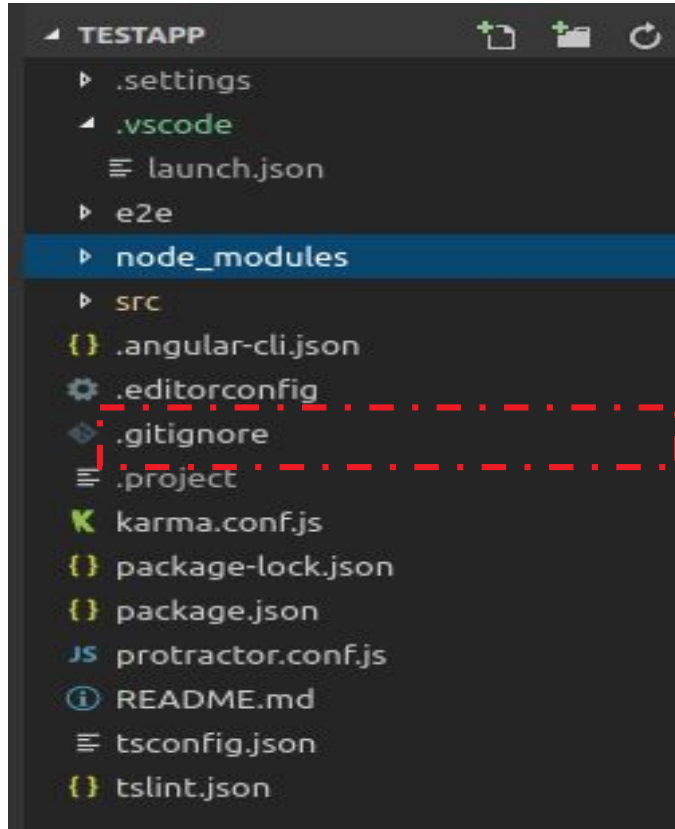
- Configuration for Angular CLI
- In this file you can set several defaults and also configure what files are included when your project is built

Directory Structure



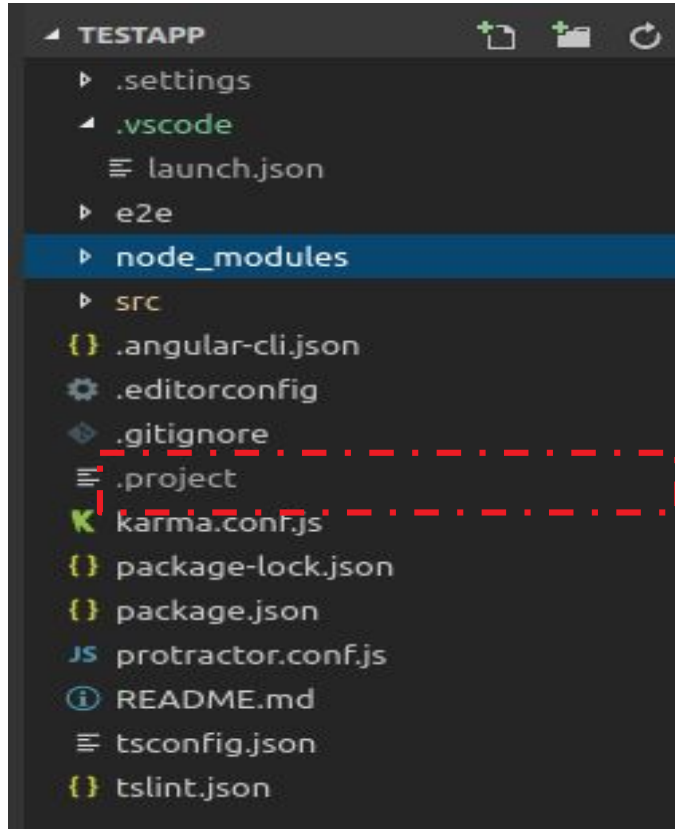
- Simple configuration for your editor to make sure everyone that uses your project has the same basic configuration

Directory Structure



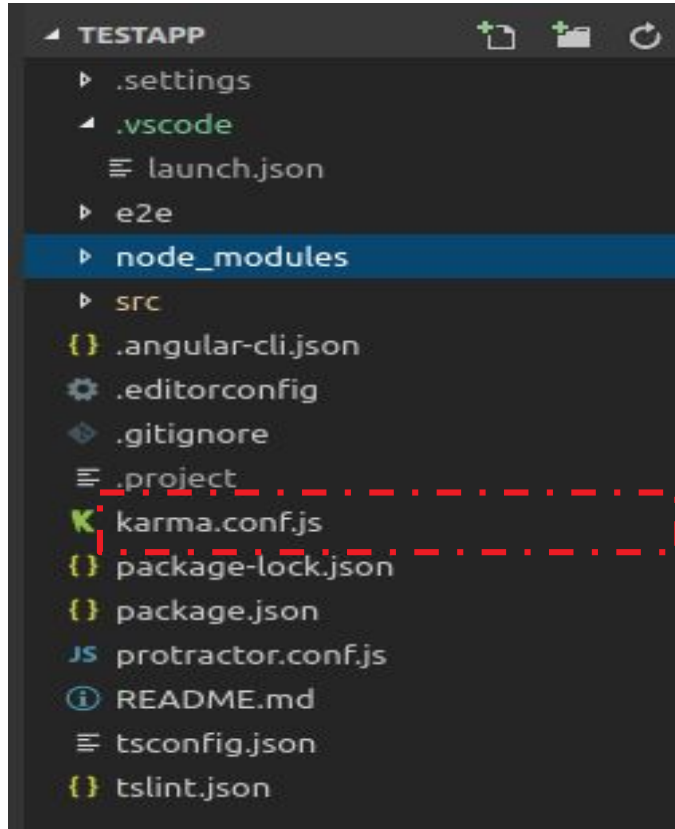
- Git configuration to make sure auto-generated files are not committed to source control

Directory Structure



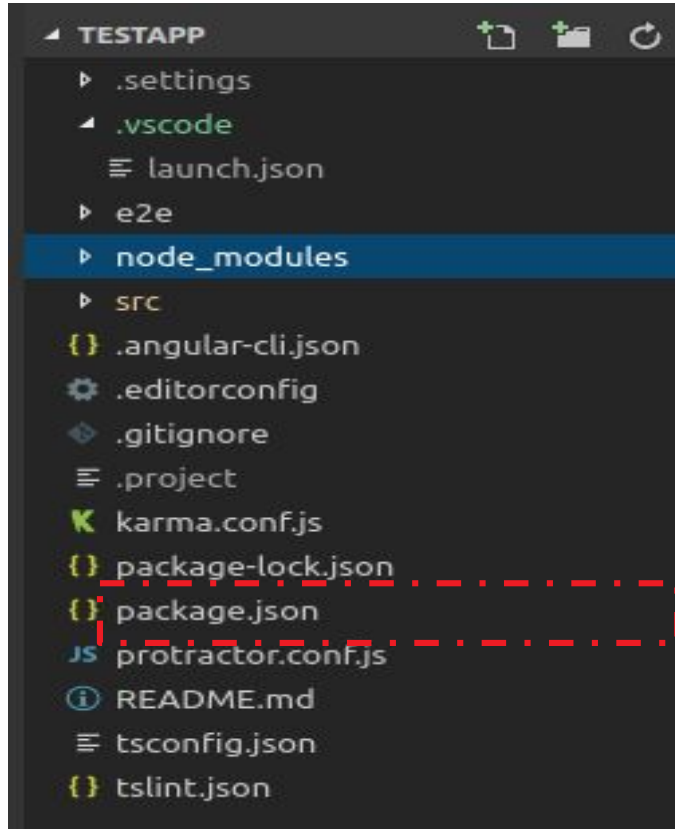
• Contains project description

Directory Structure



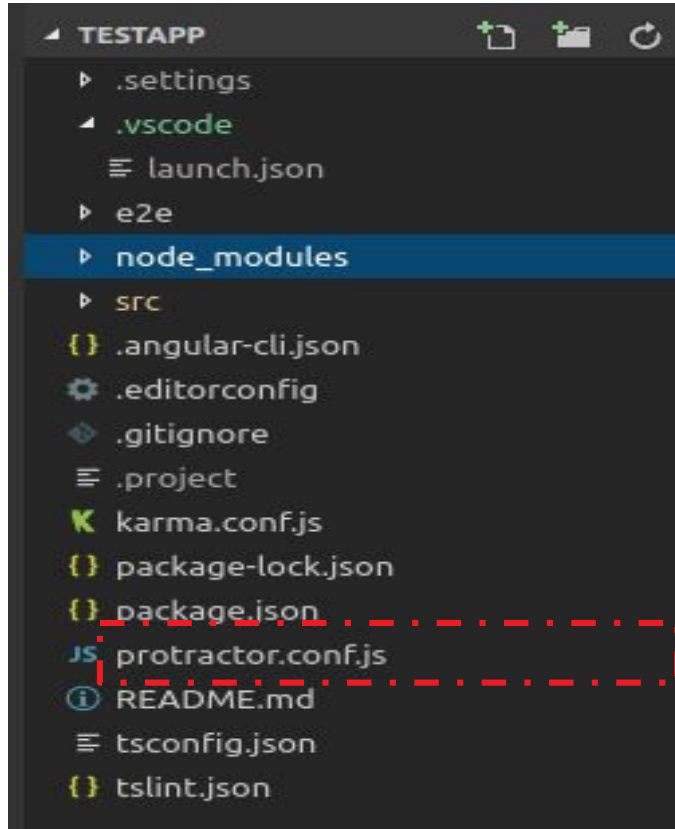
- Unit test configuration for the Karma test runner, used when running ng test

Directory Structure



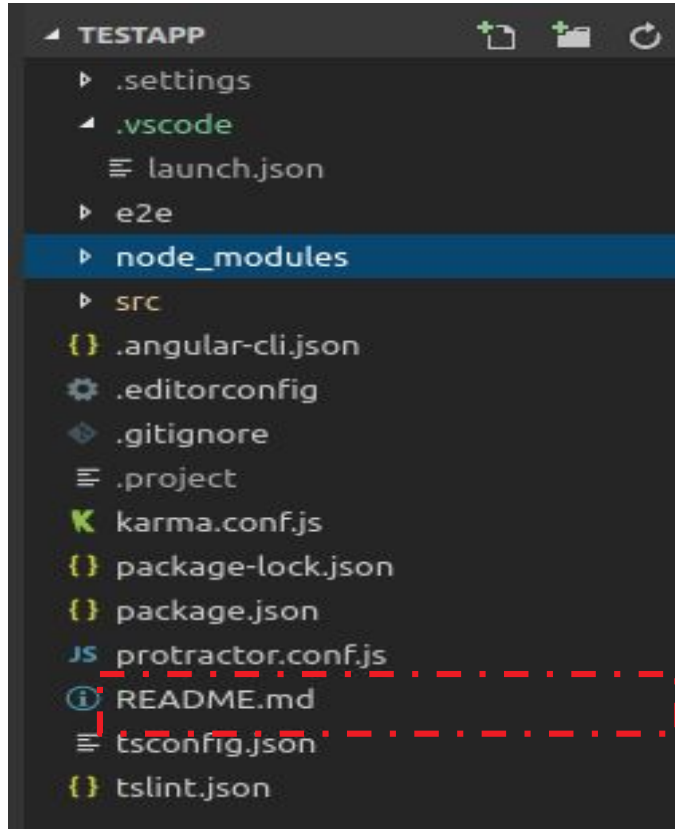
- npm configuration listing the third party packages your project uses

Directory Structure



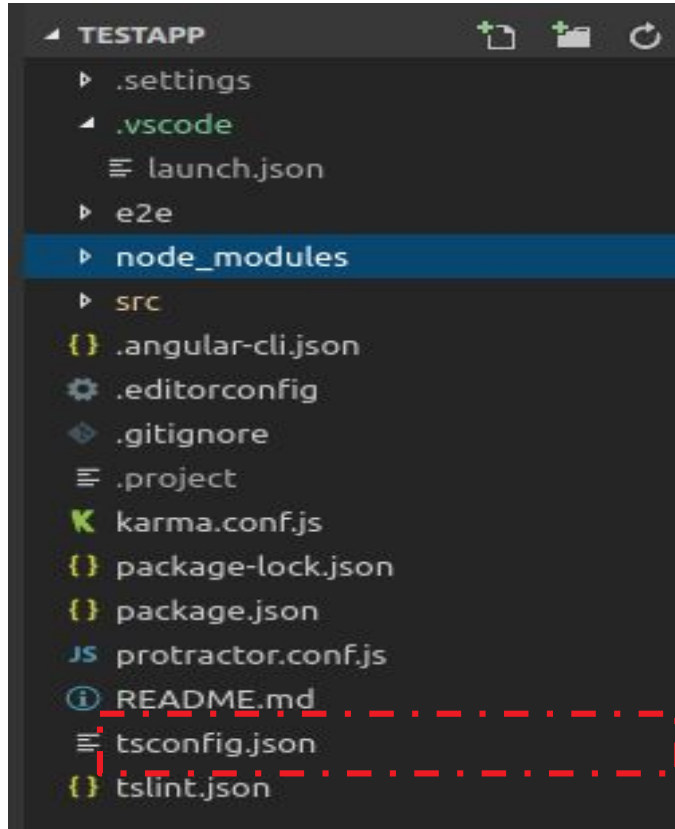
- End-to-end test configuration for Protractor, used when running ng e2e

Directory Structure



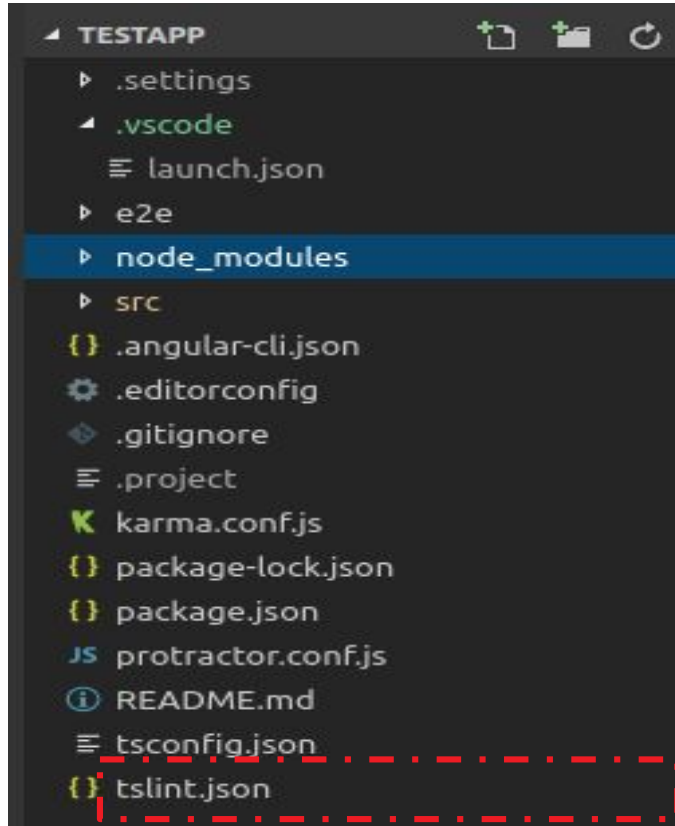
- Basic documentation for your project

Directory Structure



- TypeScript compiler configuration for your IDE to pick up and give you helpful tooling

Directory Structure



- Linting configuration for TSLint together with Codelyzer, used when running ng lint
- Linting helps keep your code style consistent

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*Thank
you*