

# Angular - Getting Started



# Angular

- Angular is a framework for building modern single-page applications



Official docs  
Tutorials

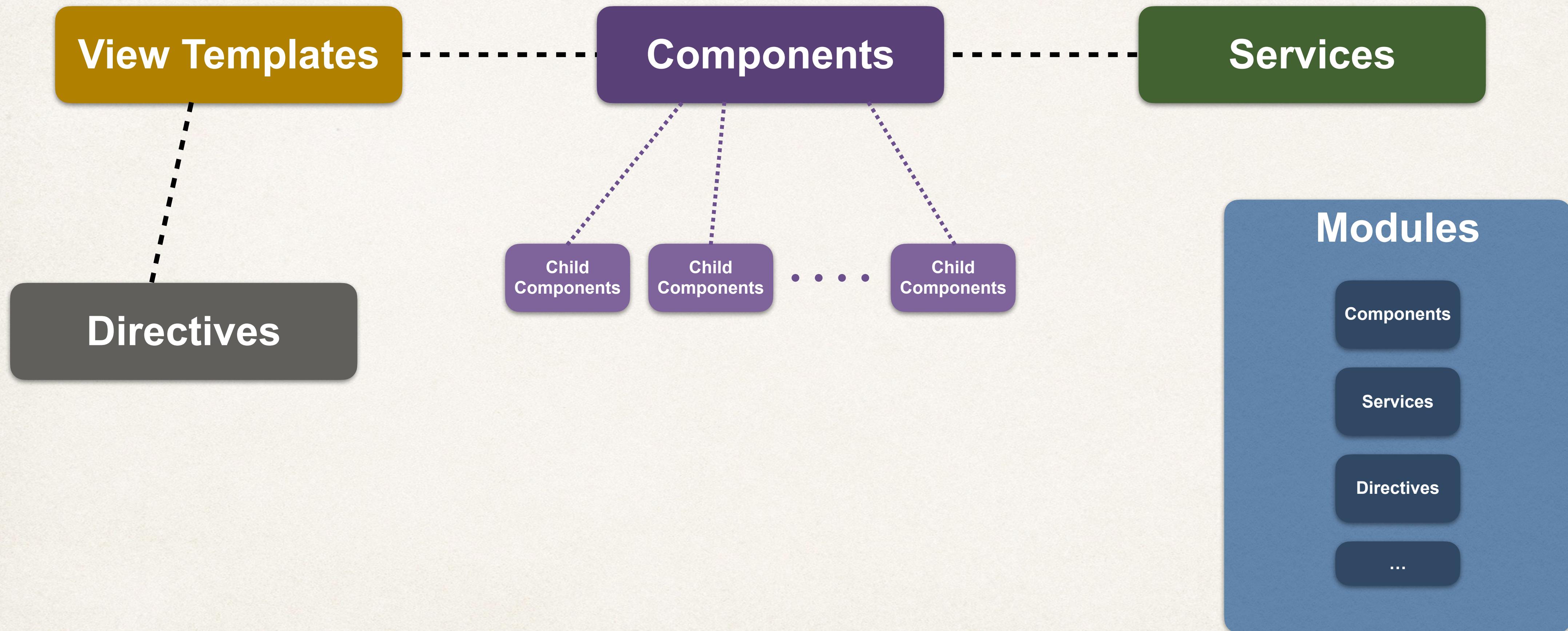
[www.angular.io](http://www.angular.io)

# Angular Features



- Component-based framework
- Clean separation of template coding and application logic
- Built-in support for data-binding and dependency injection
- Supports responsive web design and modern frameworks
  - Bootstrap, Google Material Design (Angular Material) and others ...

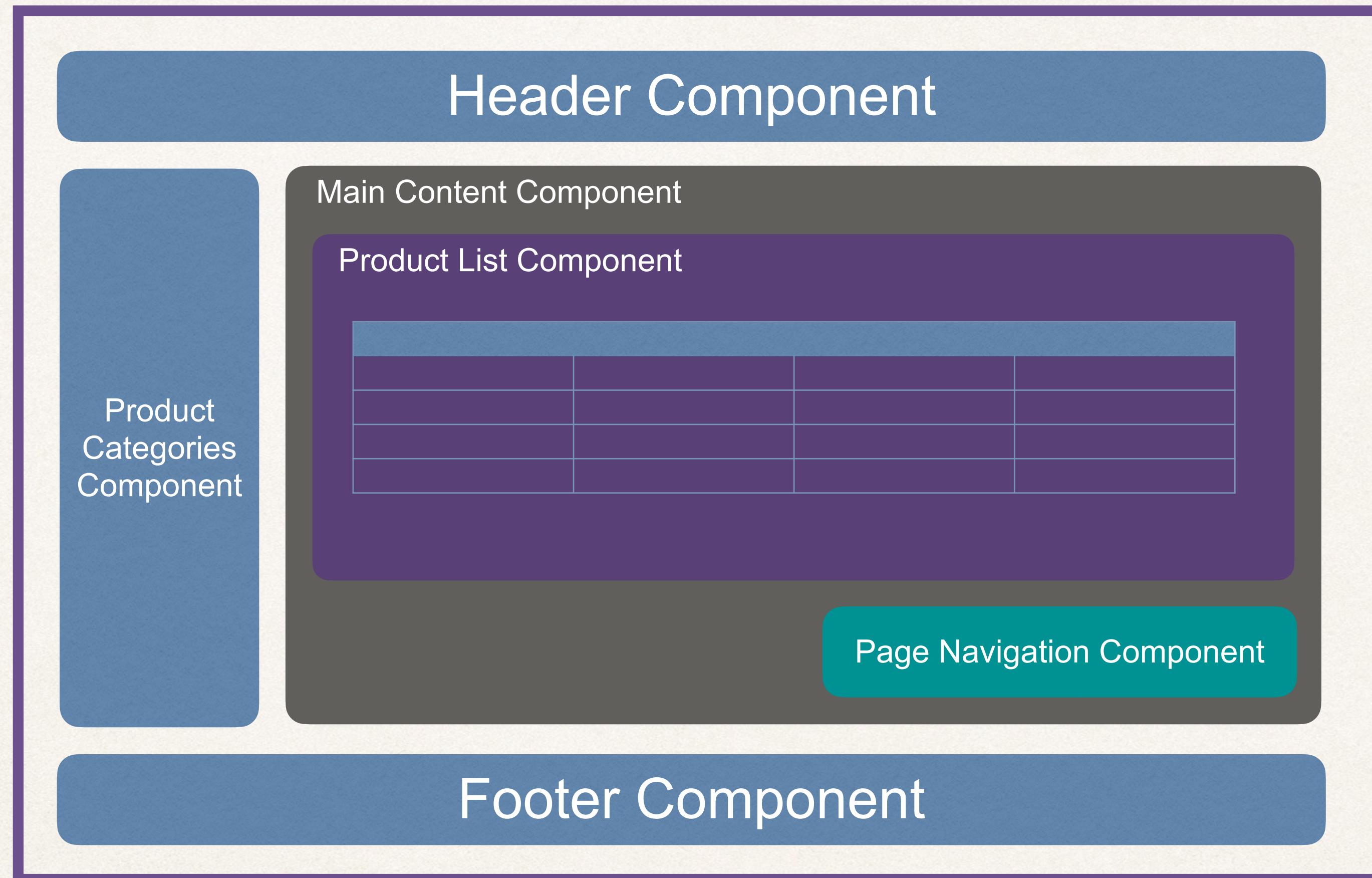
# Angular Architecture



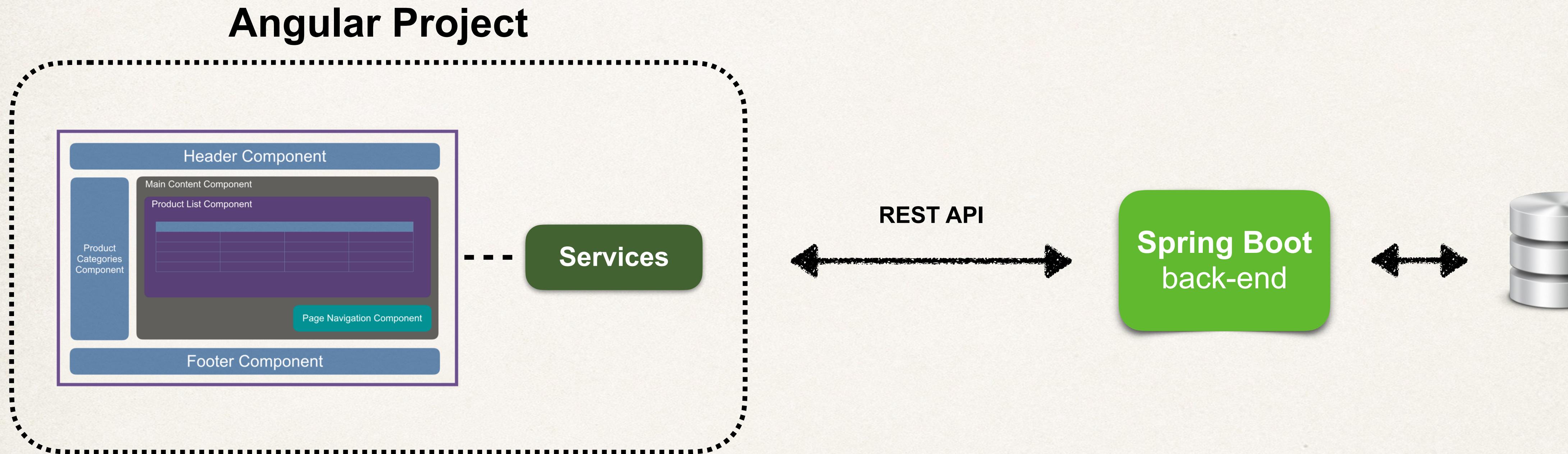
# Key Terms

Term	Definition
<b>Component</b>	<p>Main player in an Angular application. Has two parts:</p> <ol style="list-style-type: none"><li>1. View for user interface</li><li>2. Class that contains application logic / event handling for the view</li></ol>
<b>View Template</b>	<p>The user interface for the component Static HTML with dynamic elements</p>
<b>Directive</b>	<p>Adds custom behavior to HTML elements Used for looping, conditionals etc</p>
<b>Service</b>	<p>Helper class that provides desired functionality Retrieving data from a server, performing a calculation, validation etc</p>
<b>Module</b>	<p>A collection of related components, directives, services etc</p>

# Application UI Composition



# Application Interaction



# Angular Project

- An Angular project is composed of multiple files



# Creating an Angular Project

- Angular provides a command-line tool to generate a project
- Generates the starter files to help you bootstrap your project

<http://cli.angular.io>

# Angular CLI

```
> npm install --location=global @angular/cli@14.0.7
```

```
> ng version
```

```
> ng help
```

# Creating New Project with Angular CLI

```
> ng new <your-project-name>  
> ng new my-first-angular-project
```

# Running the Angular App

```
> cd <your-project-name>
```

```
> cd my-first-angular-project
```

```
> ng serve
```

```
> ng serve --open
```

# Running the Angular App

```
> cd <your-project-name>
```

```
> cd my-first-angular-project
```

```
> ng serve
```

1. Builds the app (compile / transpile)
2. Starts the server
3. Watches the source files
4. Rebuilds the apps when source is updated (hot reload)

```
> ng serve --open
```

# Running the Angular App

```
> cd <your-project-name>
```

```
> cd my-first-angular-project
```

```
> ng serve
```

By default listens on port 4200  
<http://localhost:4200>

```
> ng serve --open
```

# Running the Angular App

```
> cd <your-project-name>
```

```
> cd my-first-angular-project
```

```
> ng serve
```

```
> ng serve --open
```

Same as above ...

But also opens a web browser to  
<http://localhost:4200>

# Changing the Server Port

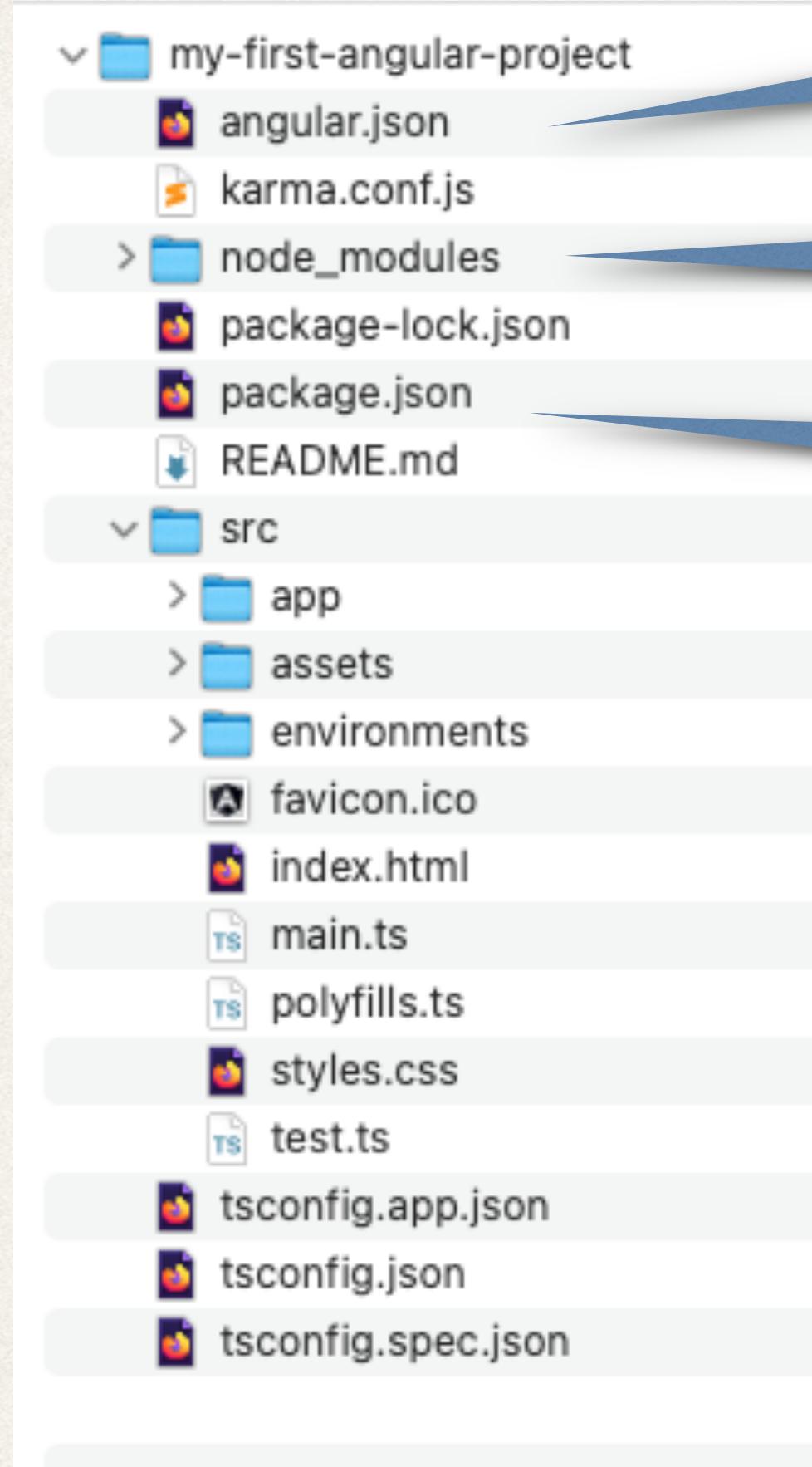
```
> ng serve --port 5100
```

Server listens on port 5100  
<http://localhost:5100>

```
> ng serve --port 5100 --open
```

Same as above ...  
But also opens a web browser to  
<http://localhost:5100>

# Project Files

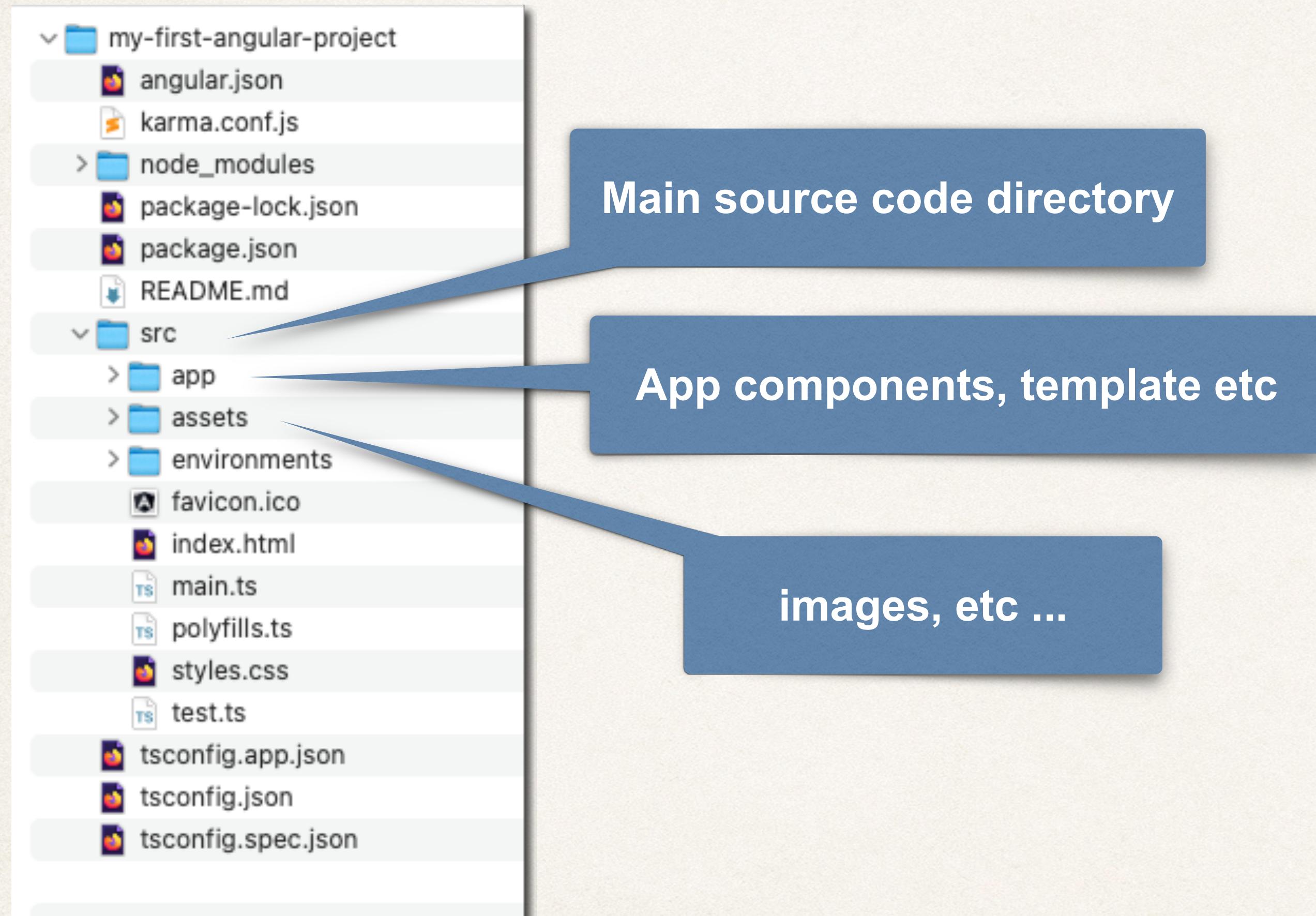


Angular workspace configuration  
List of execution targets

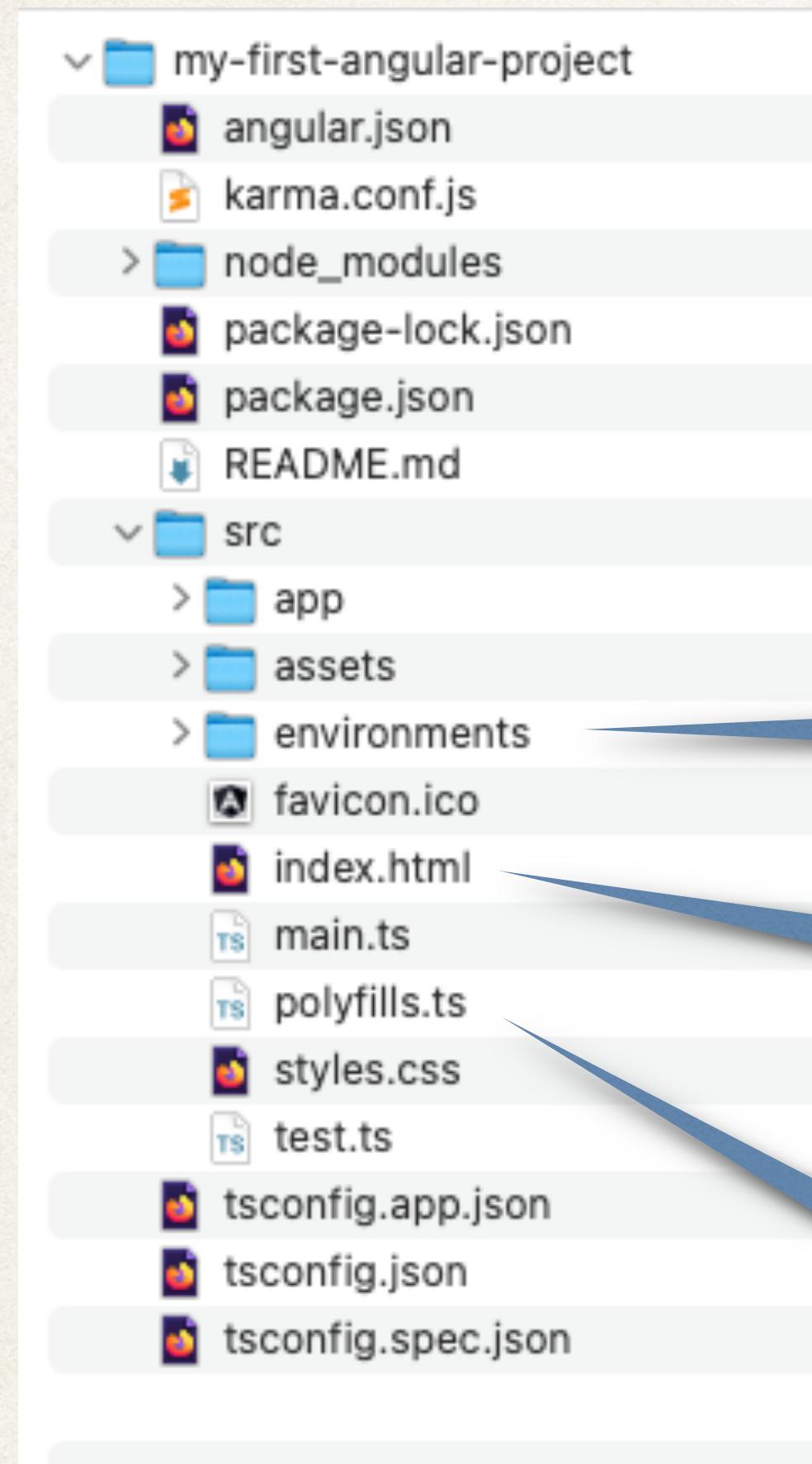
Local repo of node modules

Project meta data  
List of node dependencies

# Project Files



# Project Files

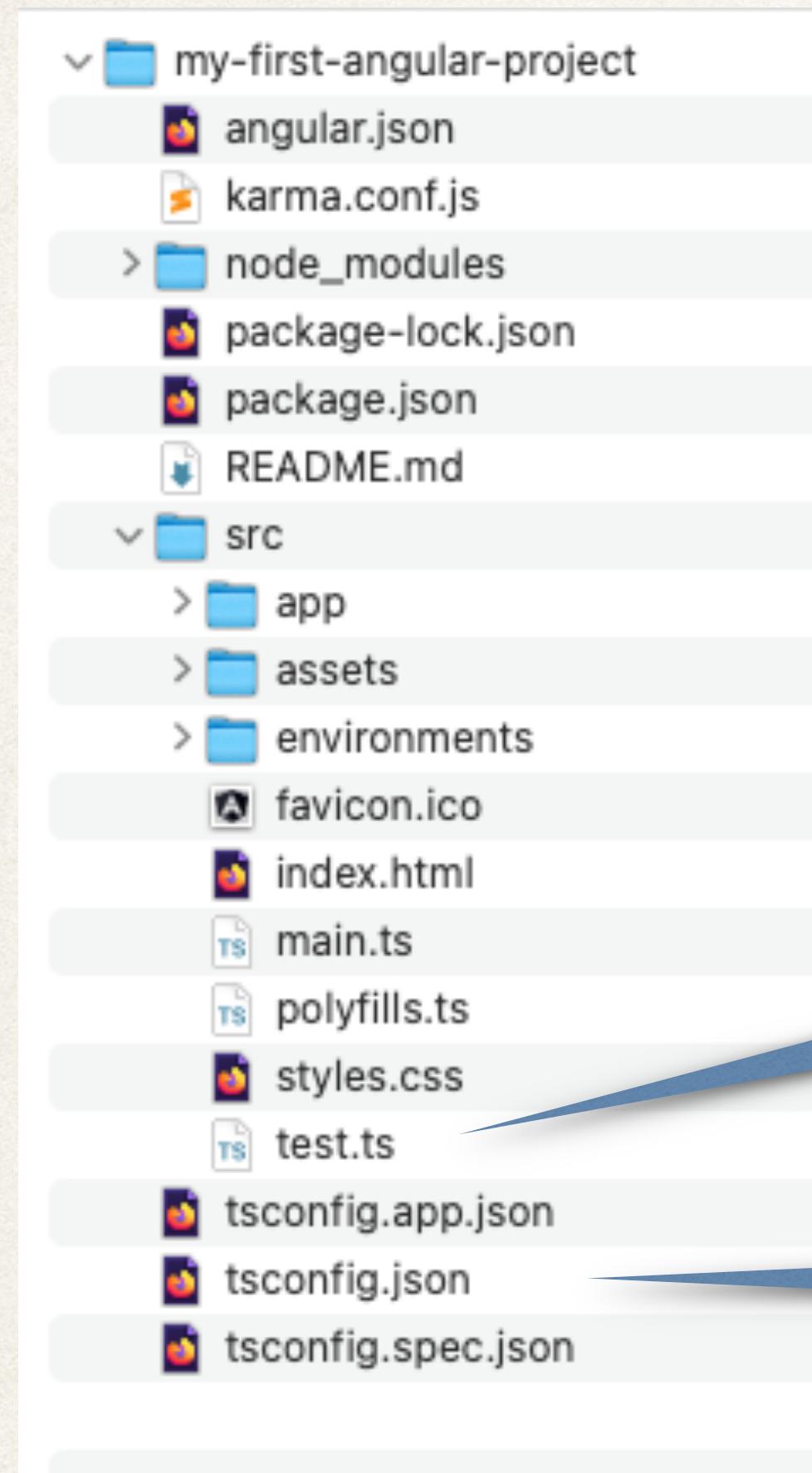


Profiles for environment:  
dev, test, prod etc ...

Main launch page

Add supports for different  
browser versions

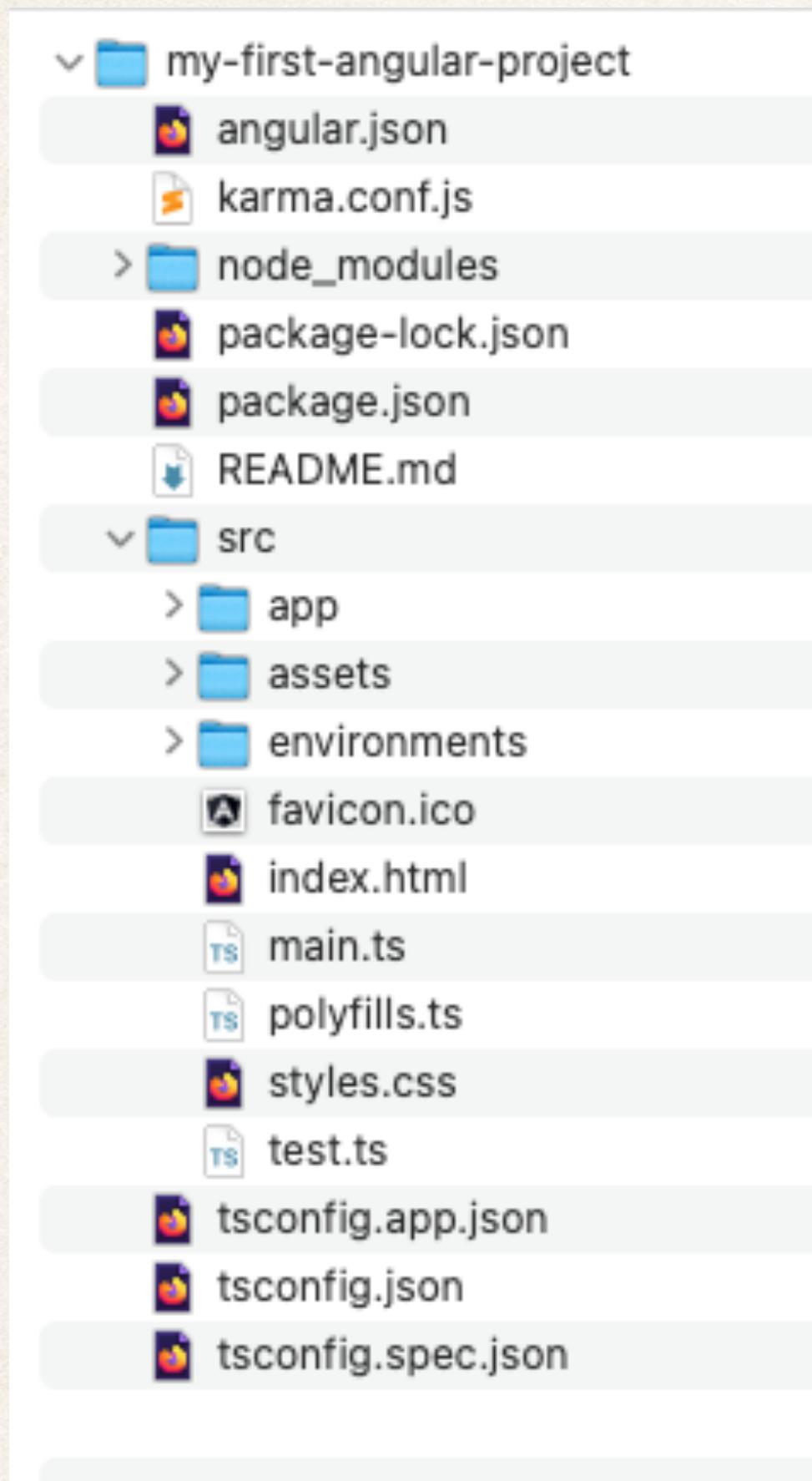
# Project Files



Unit test cases

TypeScript compiler configs

# Project Files



<http://www.angular.io/guide/file-structure>