Angular Developer



Angular CLI

Env setup and new project

- 1. Install node (or make sure its installed)
 - https://nodejs.org/en/download/
 - https://github.com/nvm-sh/nvm#installing-and-updating (advanced)
- 2. Install angular command line interface
- 3. Verify installation

ng version

- 4. Create new project
- 5. Serve
- 6. Generate some new elements
 - Component
 - Directive
 - Module
 - Component in module :)

ng help

Building the project

- 1. Build the project (errors?)
- 2. Find <u>dist</u> files
- 3. Install http-server
- 4. Serve built app

(not with ng serve but with http-server)

Working with existing project

- 1. Clone project (this for example)
- 2. Install dependencies
- 3. Run project
- 4. Select issues that you will help with:)

Quick intro

Template oriented

(lots of things happen in html)



Questions?

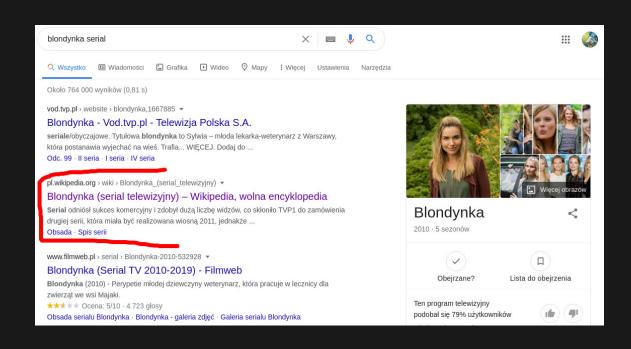
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- Angular
- Ionic / NativeScript
- Yii2 (yes, php)



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Swag for best students





- Complete set of tools FRAMEWORK
- Single Page Applications SPAs
- Multi-platform (web, mobile, desktop)
- PWA support
- Enterprise ready backed by Google

Who is using Angular?

- Google (gmail, ...)
- Youtube TV
- Microsoft Office
- Xbox Live
- Apple (dev portal)

Key features

- MVC or MVVM Model view...
- (very) Template oriented
- (Two way) Data Binding
- Dependency injection
- Componentized
- Modular
- TypeScript
- Testing support out of the box
- Tooling (Angular CLI, ...)
- IDE code completition and etc...



FRAMEWORK

LIBRARIES



SPA router





Communication

View rendering



LIBRARY

```
1
2 ReactJs.render();
3
```

```
(function(window){
 2
     function ReactJs(){
 3
       var ReactLibraryObject = {
 4
             render: () => { console.log('rendering') }
 5
       };
 6
       return _ReactLibraryObject;
 8
     if(typeof(window.ReactJs) === 'undefined'){
       window.ReactJs = ReactJs();
10
11
   })(window);
12
```



AS THE FRAMEWORK

Complete set of rules and best practices

Defined building blocks

(Modules, Components, Directives,...)

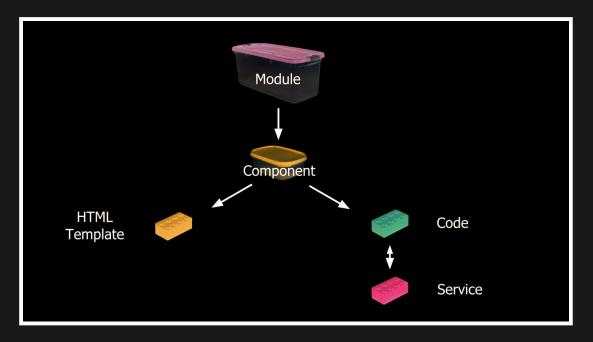


image by @miki995

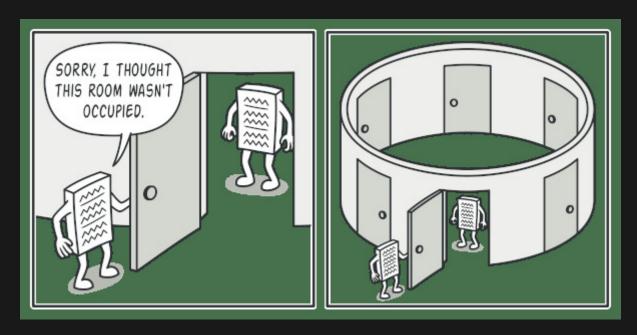
More restrictions

- Naming convention
- Application structure
- File structure

Design patterns out of the box

(advanced software development)

Singleton



courtesy of Refactoring Guru

Observer



courtesy of Refactoring Guru

Decorator



courtesy of Refactoring Guru

Angular CLI (docs)

- New project creation
- Development
- Parts generation
- Testing
- Building

Installing

\$ npm install -g @angular/cli

Creating new project

\$ ng new project_name

Running our project

```
$ cd project_name
$ ng serve -o
```

Project 'parts' generation

```
$ ng generate module myModule
```

- \$ ng g component myComponent
- \$ ng g pipe myPipe

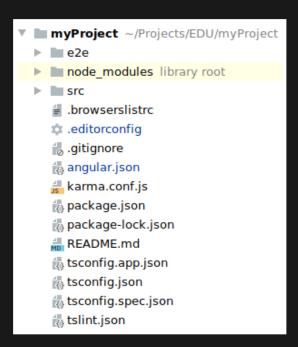
Getting help

\$ ng help

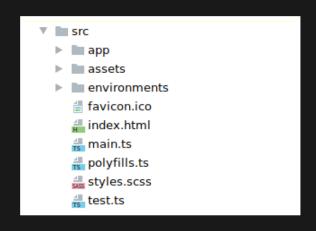
Building our project

\$ ng build --prod

Project structure



- e2e integration testing
- node_modules libs, dependencies
- src project sources
- angular.json cli config
- package.json dependencies list
- tsconfig.* typescript configs
- .editorconfig
- README.md
- tslint.json



- app our code
- assets static files
- environments configs
- index.html main html page
- main.ts app entry point

index.html

```
3 <meta charset="utf-8">
4 <title>MyProject</title>
6 <meta name="viewport"</pre>
      content="width=device-width, initial-scale=1">
8 k rel="icon"
      type="image/x-icon" href="favicon.ico">
   <app-root></app-root>
12
```

(Building process adds generated files)

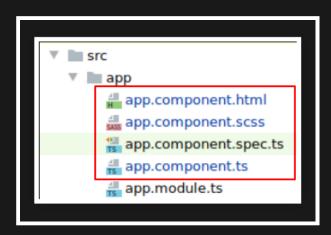
main.ts

```
import { enableProdMode } from '@angular/core';
import { platformBrowserDynamic }
from '@angular/platform-browser-dynamic';

import { AppModule } from './app/app.module';
import { environment } from './environments/environment';

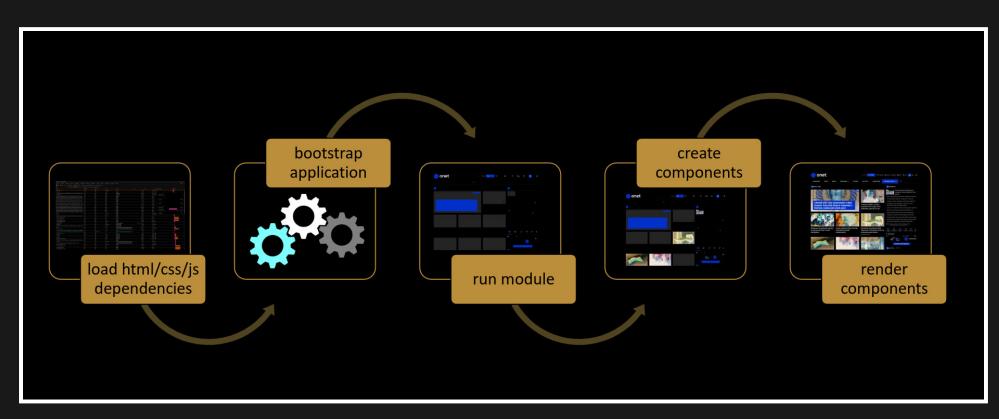
if (environment.production) {
   enableProdMode();
}

platformBrowserDynamic().bootstrapModule(AppModule)
   .catch(err => console.error(err));
```



- Component files
- Module

App bootstrapping



Template

(html files)

Interpolation



```
1 <div>
2  Welcome my dear friend
3 </div>
```

```
1 <div>
2  {{ 'Welcome my dear friend' }}
3  </div>
```