

ANGULAR FROM ZERO TO HERO



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OBJETIVO WORKSHOP



Familiarizarse con los elementos principales de Angular mediante la creación de una aplicación sencilla

ACERCA DE NOSOTROS



TATIANA MOLINA

Software Developer en Deloitte, trabajando con Angular y Ruby on Rails. Con experiencia principalmente en desarrollo FrontEnd y Javascript. organizadora de Angular Chile.

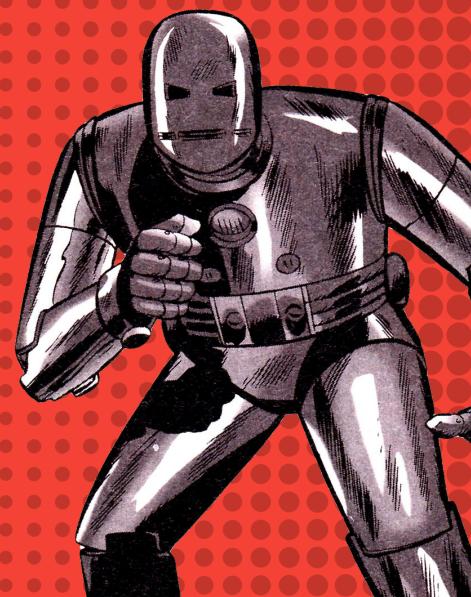


NICOLÁS ÁVILA

Clinical Software Engineer en Departamento de Informática Biomédica de Clínica Alemana de Santiago. Fonoaudiólogo. Magíster en Audiología - Estudiante de Magíster Informática en Salud HIBA. JS Lover. Co-creador de Comunidad Angular Chile.

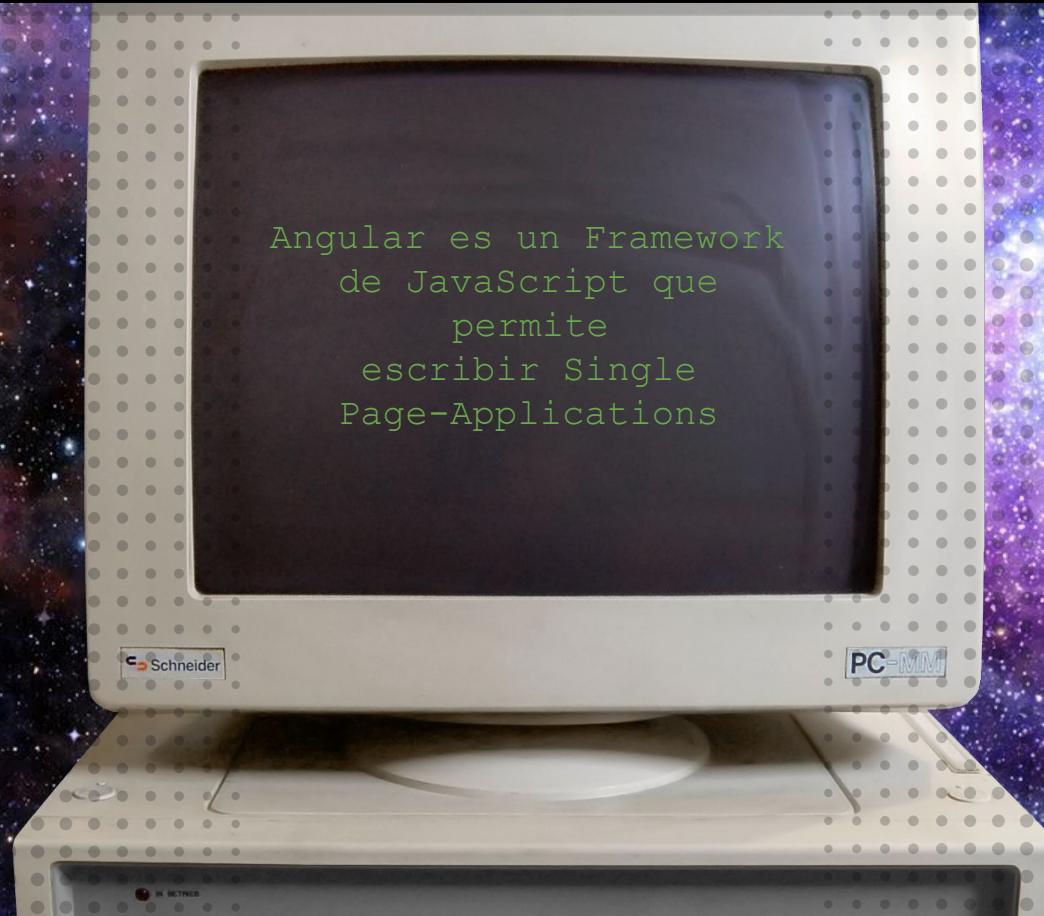
DE QUÉ HABLAREMOS

- Introducción a arquitectura del Framework
- Angular CLI
- Módulos
- Componentes & Templates
- Rutas
- Servicios
- Data Binding
- HTTP
- Building & Deploy

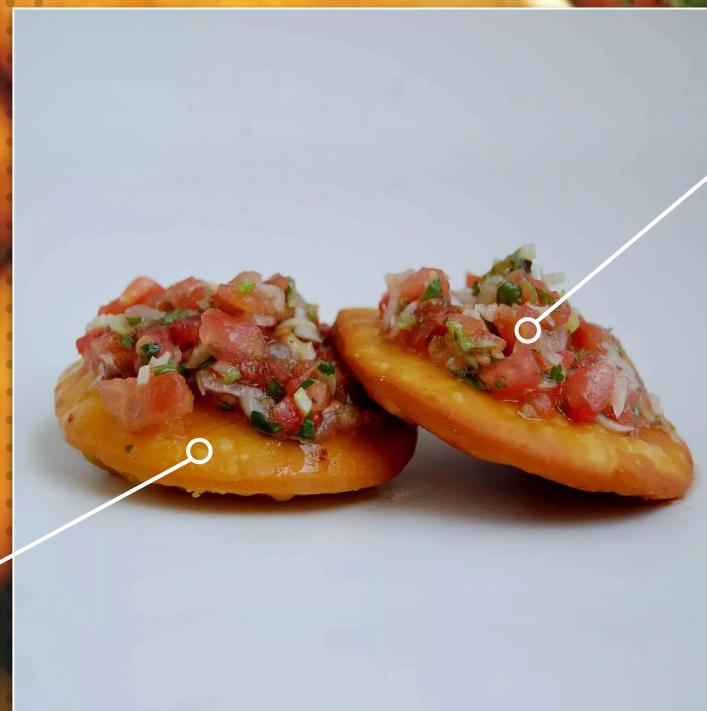


¿QUÉ ES ANGULAR?

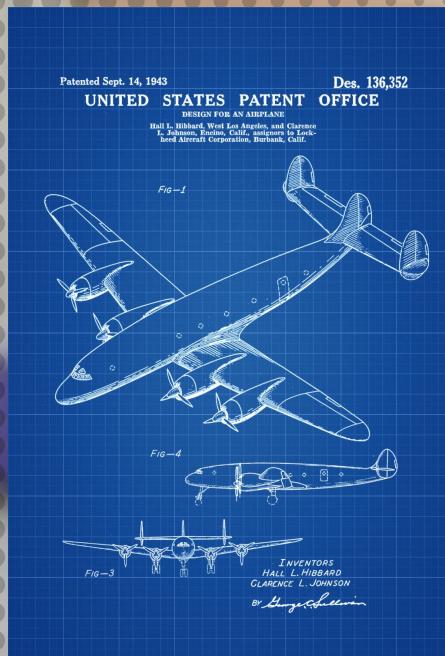
Angular es un Framework
de JavaScript que
permite
escribir Single
Page-Applications

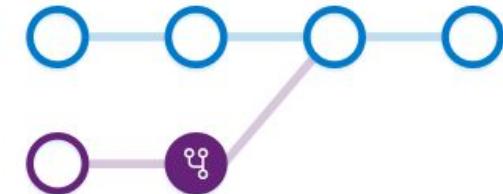
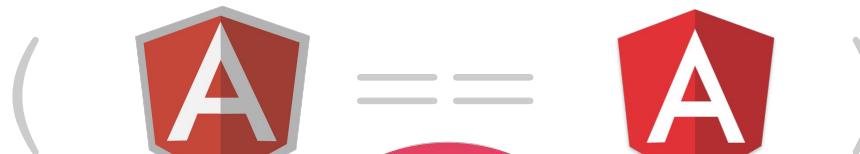
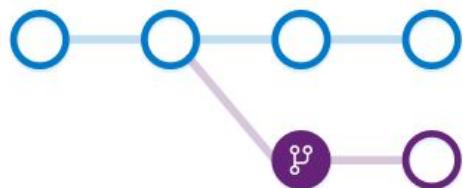


¿QUÉ ES ANGULAR?

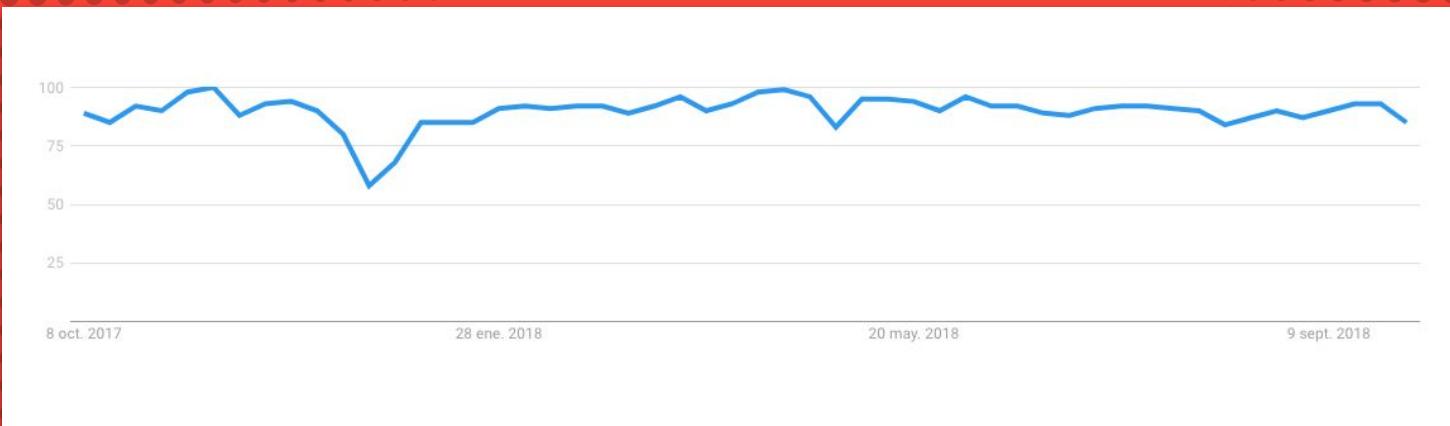


PROGRAMACIÓN ORIENTADA A OBJETOS





TREND



¿QUÉ VERSIÓN DE ANGULAR APRENDO?



2.2.1

Major

Minor

Patch



@angular/core	v2.3.0
@angular/compiler	v2.3.0
@angular/compiler-cli	v2.3.0
@angular/http	v2.3.0
@angular/router	v3.3.0



¿QUÉ ES TYPESCRIPT?

TS



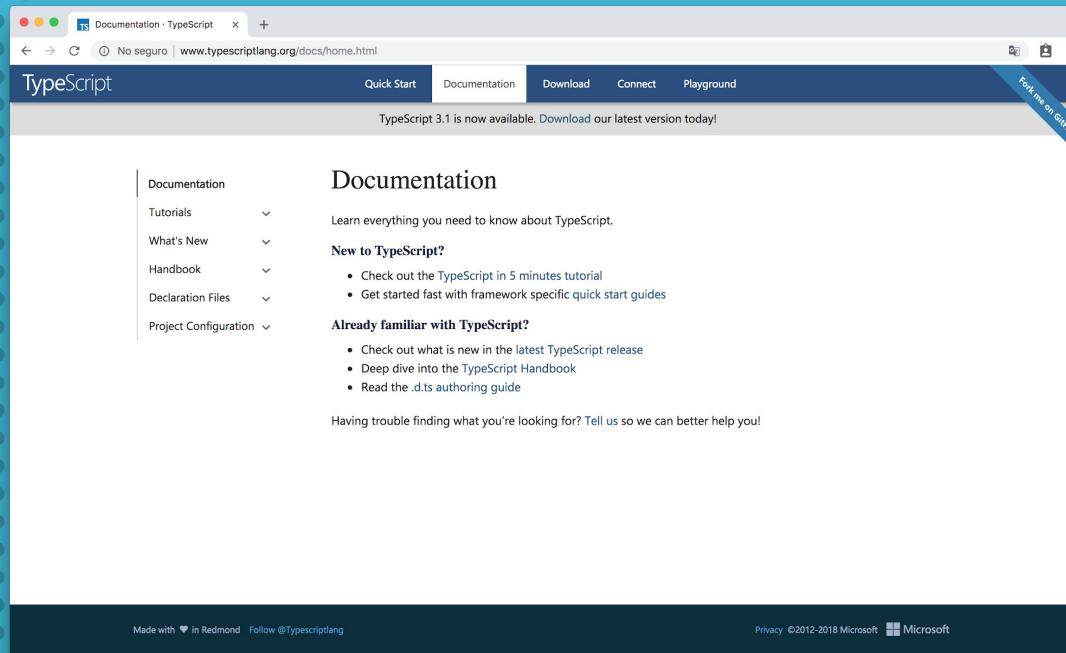
TRANSPILACIÓN



A

B

TYPESCRIPT



The screenshot shows the official TypeScript documentation website at [www.typescriptlang.org/docs/home.html](https://typescriptlang.org/docs/home.html). The page has a dark blue header with the word "TypeScript" and navigation links for "Quick Start", "Documentation", "Download", "Connect", and "Playground". A banner at the top right says "TypeScript 3.1 is now available. Download our latest version today!". On the left, there's a sidebar with a "Documentation" section containing links for "Tutorials", "What's New", "Handbook", "Declaration Files", and "Project Configuration". The main content area is titled "Documentation" and includes sections for "New to TypeScript?" (with links to a 5-minute tutorial and quick start guides) and "Already familiar with TypeScript?" (with links to the latest release notes, handbook, and d.ts authoring guide). At the bottom, there's a footer with links to "Made with ❤ in Redmond", "Follow @TypeScriptLang", "Privacy", "©2012-2018 Microsoft", and the Microsoft logo.

<https://typescriptlang.org/docs/home.html>

ANGULAR JS
(20 Oct 2010)



ANGULAR 2
(14 Sep 2016)

ANGULAR 4
(23 Mar 2017)

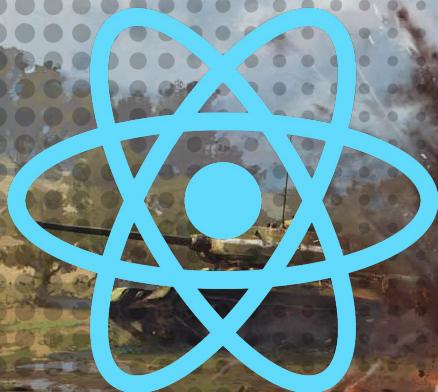


ANGULAR 5
(1 Nov 2017)

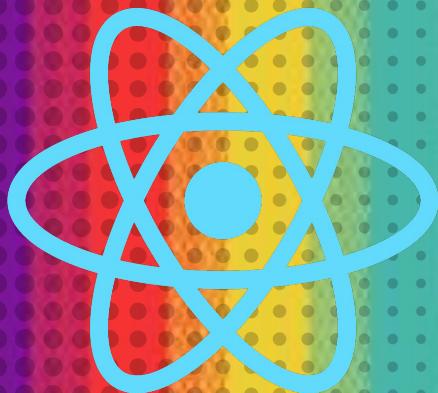
ANGULAR 6
(3 May 2018)



¿ANGULAR? ¿REACT? ¿VUE?



ANGULAR / REACT / VUE





ANGULAR
DEV



REACT
DEV



VUE
DEV



PERSONA QUE
INICIA
CONFLICTOS
SOBRE UN
FRAMEWORK
A VS B

ANGULAR CLI

- Herramienta CLI que permite manejar la creación de proyectos y sus elementos, configuración y building.
- Es una herramienta instalable mediante el siguiente comando:
 - `npm install -g @angular/cli`



ANGULAR CLI

The screenshot shows the Angular CLI website at <https://cli.angular.io>. The top navigation bar includes links for ANGULAR CLI, DOCUMENTATION, GITHUB, RELEASES, and GET STARTED. The main content area features a red header with a terminal window showing command-line instructions for creating a new application:

```
> npm install -g @angular/cli
> ng new my-dream-app
> cd my-dream-app
> ng serve
```

The red header also contains the text "Angular CLI" and "A command line interface for Angular" along with a "GET STARTED" button.

Below the red header, there are three main sections:

- ng new**: Describes the command for creating a new application, stating it makes it easy to create an application that already works, right out of the box. It already follows best practices!
- ng generate**: Describes the command for generating components, routes, services, and pipes, noting that the CLI will also create simple test shells for all of these.
- ng serve**: Describes the command for starting the development server.

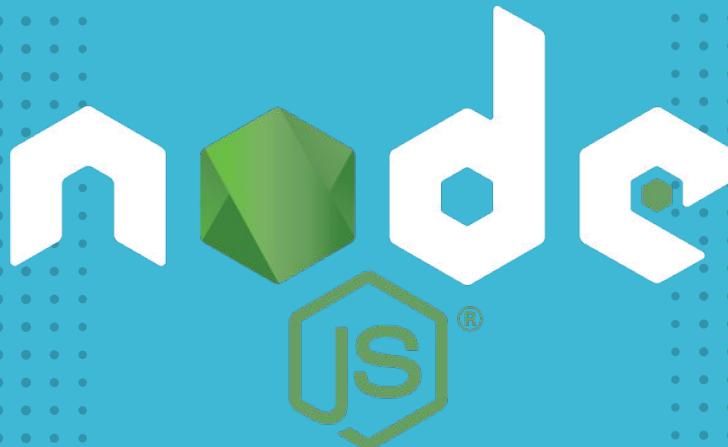
<https://cli.angular.io>

ANGULAR CLI: GENERACIÓN DE NUEVO PROYECTO



```
ng new mi-proyecto-awesome --style=scss
```

NODEJS



ANGULAR CLI: GENERACIÓN DE NUEVO PROYECTO

```
1. ng new prueba -style=scss (node)
CREATE prueba/tslint.json (2805 bytes)
CREATE prueba/.editorconfig (245 bytes)
CREATE prueba/.gitignore (503 bytes)
CREATE prueba/src/environments/environment.prod.ts (51 bytes)
CREATE prueba/src/environments/environment.ts (631 bytes)
CREATE prueba/src/favicon.ico (5430 bytes)
CREATE prueba/src/index.html (293 bytes)
CREATE prueba/src/main.ts (370 bytes)
CREATE prueba/src/polyfills.ts (3194 bytes)
CREATE prueba/src/test.ts (642 bytes)
CREATE prueba/src/assets/.gitkeep (0 bytes)
CREATE prueba/src/styles.css (80 bytes)
CREATE prueba/src/browserslist (375 bytes)
CREATE prueba/src/karma.conf.js (964 bytes)
CREATE prueba/src/tsconfig.app.json (194 bytes)
CREATE prueba/src/tsconfig.spec.json (282 bytes)
CREATE prueba/src/tslint.json (314 bytes)
CREATE prueba/src/app/app.module.ts (314 bytes)
CREATE prueba/src/app/app.component.spec.ts (989 bytes)
CREATE prueba/src/app/app.component.ts (1363 bytes)
CREATE prueba/e2e/protractor.conf.js (752 bytes)
CREATE prueba/e2e/src/app.e2e-spec.ts (302 bytes)
CREATE prueba/e2e/src/app.po.ts (208 bytes)
CREATE prueba/e2e/tsconfig.e2e.json (213 bytes)
(||          )) :: fetchMetadata: sill pacote range manifest for compressio
```

ANGULAR CLI: OTROS COMANDOS



```
ng generate component mi-component  
ng generate directive mi-directiva  
ng generate pipe mi-pipe
```

ESTRUCTURA PRINCIPAL DE UN PROYECTO

```
▶ e2e
▶ node_modules
▶ src
⚙ .editorconfig
❖ .gitignore
{} angular.json
{} package-lock.json
{} package.json
ℹ README.md
{} tsconfig.json
{} tslint.json
```



```
▶ app
▶ assets
▶ environments
☰ browserslist
★ favicon.ico
⬧ index.html
^K karma.conf.js
TS main.ts
TS polyfills.ts
# styles.css
TS test.ts
{} tsconfig.app.json
{} tsconfig.spec.json
{} tslint.json
```

ELEMENTOS PRINCIPALES

MÓDULOS

COMPONENTES

RUTAS

SERVICIOS

DECORADORES

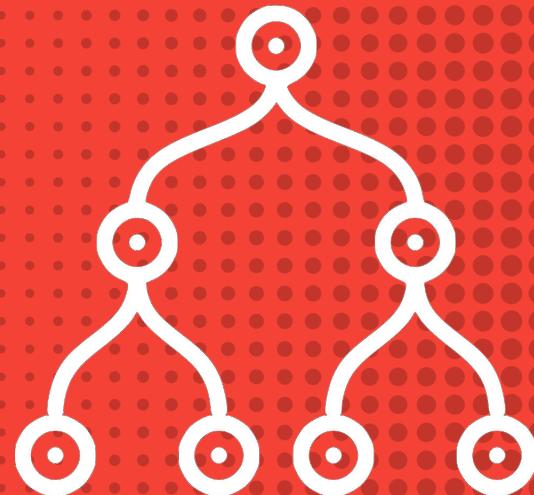
@Decorador()

Símbolo @

Función

MÓDULOS

- Presentes a nivel de **lenguaje** y **framework**
 - Lenguaje:
`import { X } from X`
 - Framework:
`@NgModule`



MÓDULOS: LENGUAJE

Importa **Component** y **OnInit** desde el módulo **Angular Core**



```
import {Component, OnInit} from '@angular/core'  
export class MiComponenteAwesome {}
```

Exporta la clase **MiComponenteAwesome**

MÓDULOS: FRAMEWORK

```
import { BrowserModule } from '@angular/platform-browser';
import { NgModule } from '@angular/core';

import { AppComponent } from './app.component';

@NgModule({
  declarations: [
    AppComponent
  ],
  imports: [
    BrowserModule
  ],
  providers: [],
  bootstrap: [AppComponent]
})
export class AppModule { }
```

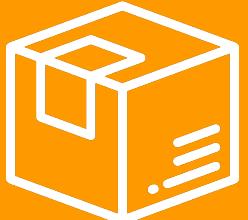


MÓDULOS: SUS PARTES

Declarations



Imports



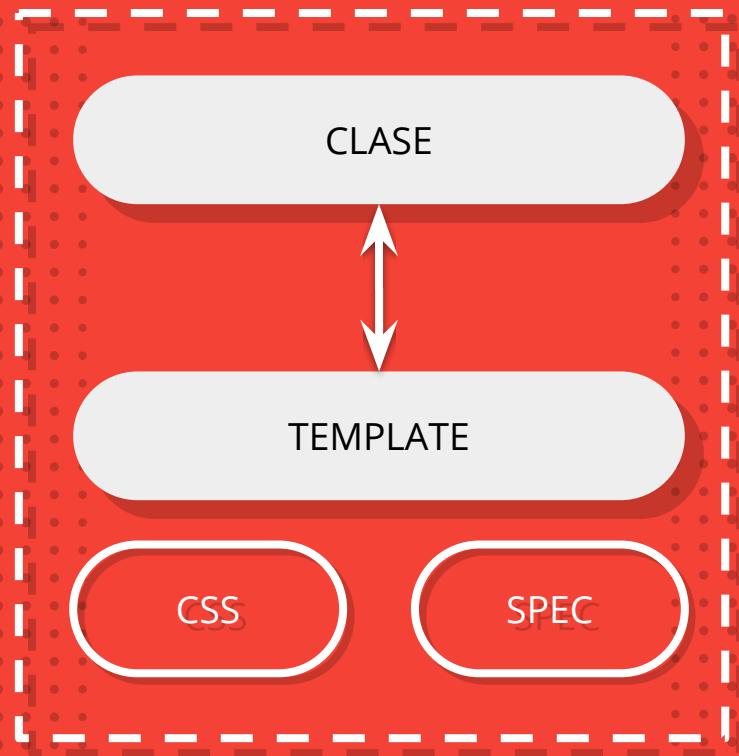
Providers



Bootstrap



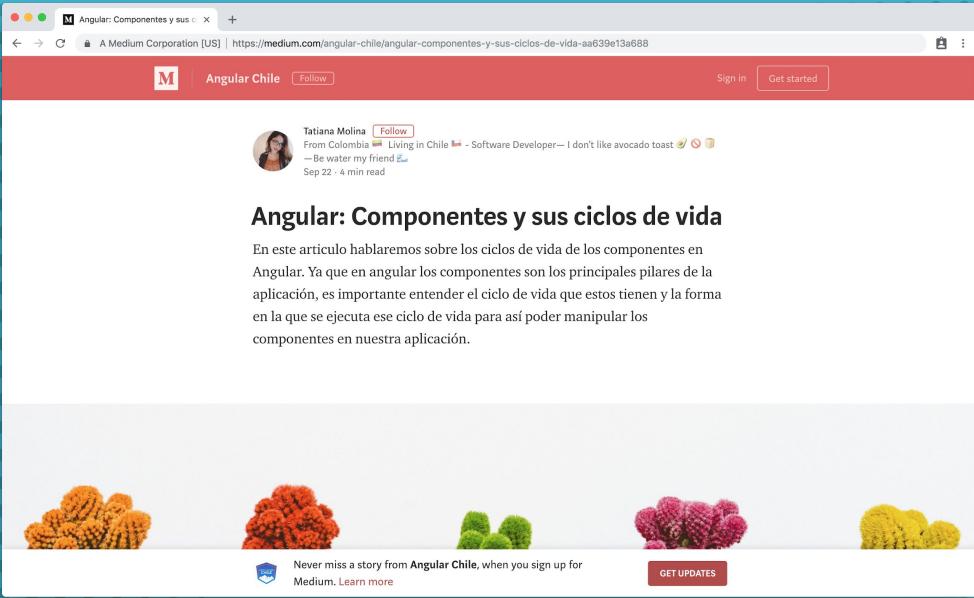
COMPONENTES



WHERE ARE MY
COMPONENTS
SUMMER?



COMPONENTES Y SUS CICLOS DE VIDA



The screenshot shows a Medium article page. At the top, there's a red header bar with the Medium logo, the title 'Angular Chile', and navigation links for 'Sign in' and 'Get started'. Below the header, a profile picture of Tatiana Molina is shown, along with her name, location ('From Colombia, Living in Chile'), and title ('Software Developer'). A quote from her bio is displayed: 'I don't like avocado toast' with three small icons. The date 'Sep 22 · 4 min read' is also present. The main title of the article is 'Angular: Componentes y sus ciclos de vida'. The article text discusses the life cycles of components in Angular. At the bottom of the article, there's a decorative image of five small, colorful, bushy plants in pots (orange, red, green, pink, yellow). Below this image, a call-to-action button says 'GET UPDATES'.

Angular: Componentes y sus ciclos de vida

En este articulo hablaremos sobre los ciclos de vida de los componentes en Angular. Ya que en angular los componentes son los principales pilares de la aplicación, es importante entender el ciclo de vida que estos tienen y la forma en la que se ejecuta ese ciclo de vida para así poder manipular los componentes en nuestra aplicación.

Never miss a story from **Angular Chile**, when you sign up for Medium. [Learn more](#)

GET UPDATES

<https://medium.com/angular-chile/angular-componentes-y-sus-ciclos-de-vida-aa639e13a688>

COMPONENTES

```
import { Component } from '@angular/core';

@Component({
  selector: 'app-root',
  templateUrl: './app.component.html',
  styleUrls: ['./app.component.css']
})
export class AppComponent {
  title = 'app';
}
```

COMPONENTES: PARTES

```
Component({  
  1  selector: 'app-mi-componente',  
  2  templateUrl: './mi-componente.component.html',  
  3  styleUrls: ['./mi-componente.component.scss']  
})
```

1



2



3



TEMPLATES

- Etiquetas HTML + Markup de Angular
- Directivas Estructurales
- Data Binding
 - Property Binding
 - Event Binding



TEMPLATES

```
● ● ●  
@Component({  
  selector: 'app-mi-componente',  
  templateUrl: './mi-componente.component.html',  
  styleUrls: ['./mi-componente.component.scss']  
})  
export class MiComponenteComponent {  
  
  public nombre = 'Angular Chile RULZ!' ←  
}  
}
```



```
<h1>Angular Chile dice:</h1>  
<p>{{nombre}}</p>
```

DIRECTIVAS ESTRUCTURALES

if ()



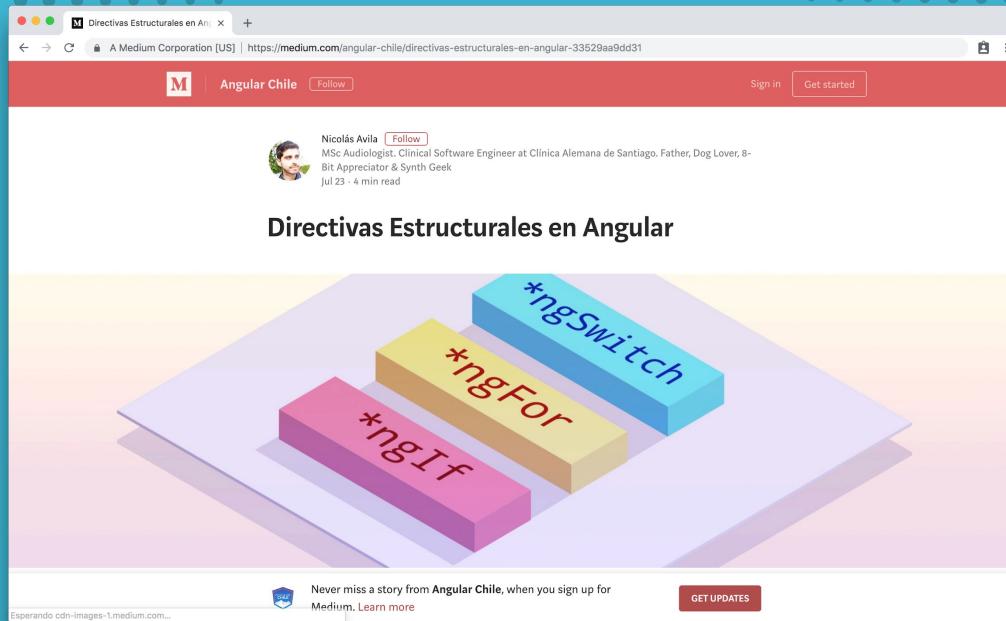
```
<div *ngIf="miCondicion">  
  <p>Este mensaje se muestra</p>  
</div>
```

for ()



```
<div *ngFor="let elemento of miArray">  
  <p>Este mensaje se repite</p>  
</div>
```

DIRECTIVAS ESTRUCTURALES EN ANGULAR



<https://medium.com/angular-chile/directivas-estructurales-en-angular-33529aa9dd31>

INYECCIÓN DE DEPENDENCIAS

- Una dependencia corresponde a un servicio o objeto que puede ser utilizado en otro objeto
- Inyección es el proceso de pasar una dependencia a un objeto dependiente.
- `@Injectable()`



INYECCIÓN DE DEPENDENCIAS

```
import { ApiService } from '../../../../../api/api.service';

export class MiComponente {

    public constructor(
        public api: ApiService
    ) {}

}
```

SERVICIOS

- Corresponden a clases con atributos y métodos que son inyectables como dependencia.
- Permiten poder encapsular lógica reutilizable.
- Utilizados principalmente para comunicación con APIs.



SERVICIOS

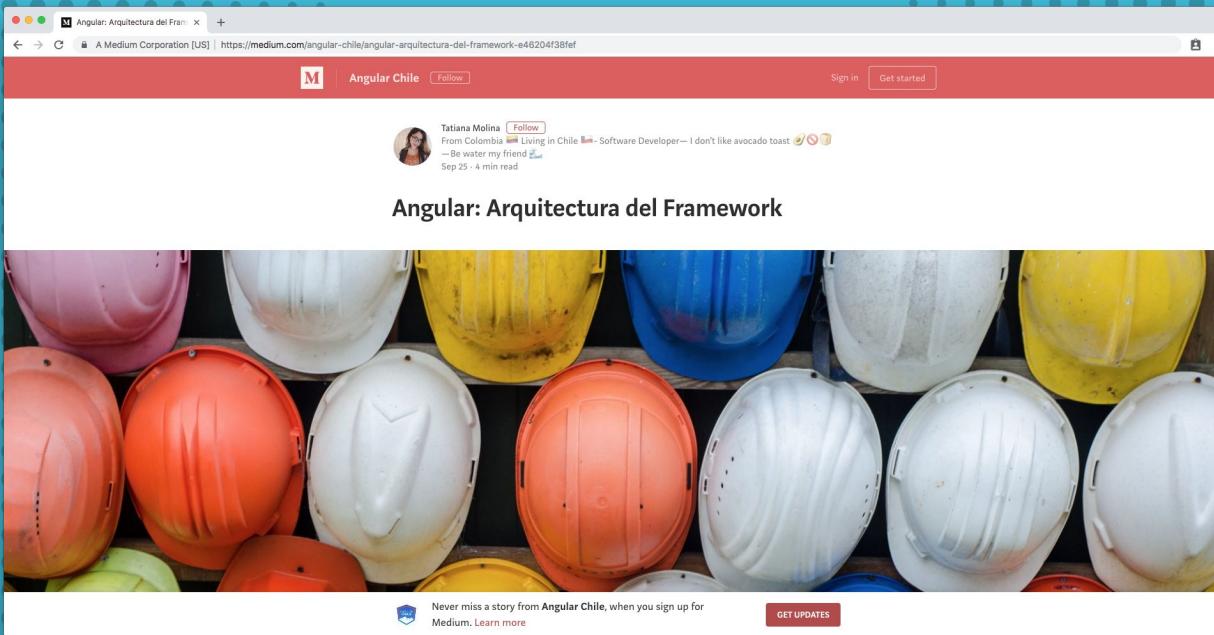
```
import { Injectable } from '@angular/core';
import { HttpClient } from '@angular/common/http';

@Injectable()
export class ApiService {

  constructor(
    private http:HttpClient
  ) {}

  public obtieneClientes() {
    return this.http.get('https://api.sushi.cl/clientes');
  }
}
```

DESCRIPCIÓN DE LA ARQUITECTURA DEL FRAMEWORK



<https://medium.com/angular-chile/angular-arquitectura-del-framework-e46204f38fef>



ng serve

ng build

ENVIRONMENTS

Development

- ATRIBUTO1
- ATRIBUTO 2
- ATRIBUTO 3

Producción

- ATRIBUTO1
- ATRIBUTO 2
- ATRIBUTO 3



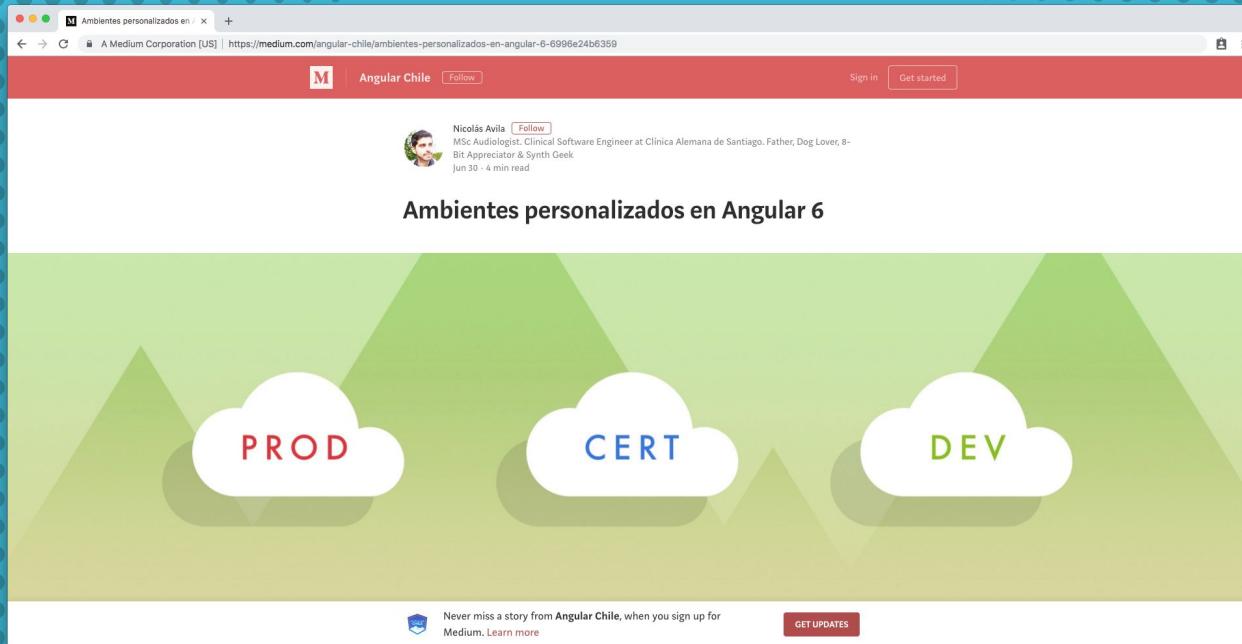
ENVIRONMENTS

```
export const environment = {  
  production: false,  
  api_url: 'http://api.miservicio.dev/v1/'  
};
```

```
export const environment = {  
  production: true,  
  api_url: 'http://api.miservicio.com/v1/'  
};
```



¿CÓMO CREAR AMBIENTES PERSONALIZADOS?



<https://medium.com/angular-chile/ambientes-personalizados-en-angular-6-6996e24b6359>

RUTAS

WWW.

/personajes/mujer-maravilla

MujerMaravillaComponent



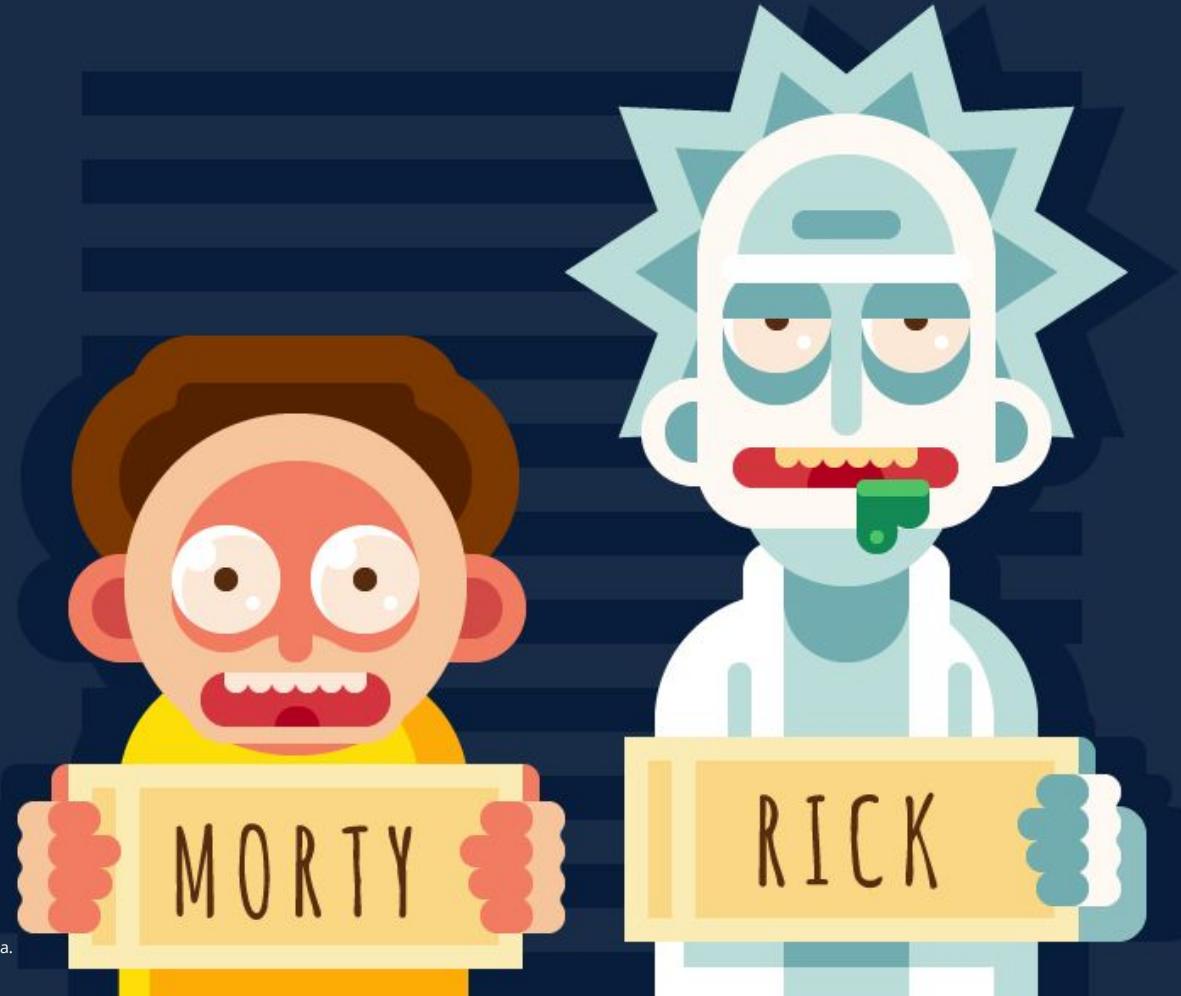
RUTAS



[

```
{ path: 'home', component: HomeComponent},  
{ path: 'lista-personajes', component: ListaPersonajesComponent},  
{ path: 'contacto', component: ContactoComponent}
```

]



The Rick and Morty API

https://rickandmortyapi.com

Home About Documentation

THE RICK AND MORTY API

HEY, DID YOU EVER WANT TO HOLD A TERRY FOLD?

Beth Smith
id: 39 - created 10 months ago

Cousin Nicky
id: 76 - created 9 months ago

Gobo
id: 147 - created 8 months ago

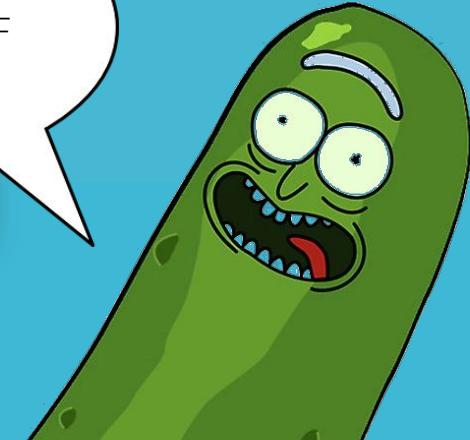
STATUS Alive STATUS Dead STATUS Dead STATUS Alive

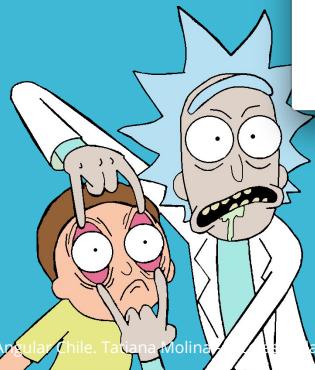
LOOK MORTY!
I TURN MYSELF
INTO AN **API**

Rick and Morty



<https://rickandmortyapi.com/>





Documentation | The Rick and Morty API

https://rickandmortyapi.com/documentation/

Home About Documentation

Introduction

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Character

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Location

[Location schema](#)
[Get all locations](#)
[Get multiple locations](#)
[Get a single location](#)
[Filter locations](#)

Episode

[Episode schema](#)
[Get all episodes](#)
[Get a single episode](#)
[Get multiple episodes](#)
[Filter episodes](#)

Libraries

Introduction

This documentation will help you get familiar with the resources of the Rick and Morty API and show you how to make different queries, so that you can get the most out of it.

Rate limit

The Rick and Morty API is an open API, no authentication is required for use. Nonetheless, to prevent malicious usage of the API there is a limit on the number of requests a given IP address can make. This limit is 10000 requests per day. If you happen to hit the limit you'll receive a `429` status (Too Many Requests) on all your requests during a period of 12 hours.

Base URL

`https://rickandmortyapi.com/api/`

The base url contains information about all available API's resources. All requests are `GET` requests and go over `https`. All responses will return data in `json`.

Sample request

```
https://rickandmortyapi.com/api/
```

```
{  
  "characters": "https://rickandmortyapi.com/api/character",  
  "locations": "https://rickandmortyapi.com/api/location",  
  "episodes": "https://rickandmortyapi.com/api/episode"  
}
```

There are currently three available resources:

- Character: used to get all the characters.

<https://rickandmortyapi.com/documentation>

STACKBLITZ

The online IDE for web applications.
Powered by Visual Studio Code.

Create, share & embed live projects — in just one click.

START A NEW PROJECT

Angular TypeScript React Javascript Ionic TypeScript

★ FEATURED PROJECTS

<https://stackblitz.com>





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- Conferencias ng
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 - Stephen Fluin — <https://twitter.com/stephenfluin>
(Angular Core team)
 - David Müllerchen — https://twitter.com/webdave_de
 - Uri Shaked — <https://twitter.com/UriShaked>
 - Brad Green — <https://twitter.com/bradlygreen>
(Angular Core team)
 - Bonnie Brennan—<https://twitter.com/bonnster75>
 - Todd Motto—<https://twitter.com/toddmotto>