

# s|ngular

it can be done.

AsturiasHacking

**¡Bienvenidos a Sngular!**





s|ingular  
it can be done.

Fundada en 1995, Sngular es una compañía tecnológica que tiene todas las *Digital Key Capabilities* para recorrer con éxito el Ciclo del Éxito Digital.

amazonbuyvip

The infographic is set against a background of a modern office with large windows. It features a central figure of a person in a brown sweater. Overlaid on this are five circles: a large white one with an orange border on the left containing the 'amazonbuyvip' logo, and four others (three blue, one orange) containing key milestones. The milestones are arranged in a cluster around the central figure.

**2006**

Singular was  
1 of 2 co-Founders  
& Tech Partner

**2010**

150 M\$  
annual  
revenues

**2010**

11 M clients  
7 countries

**2010**

100 M\$  
Sold to  
AMAZON

## Digital Key Capabilities



**s|ngular**  
it can be done.

# s|ngular

it can be done.

Who trust us



bankinter.

BBVA



IBERDROLA

ING



Santander



SunEdison®

SUNPOWER®

Telefonica



uralita



vodafone



Portland, OR



New York, NY

Birmingham, AL



Miami, FL



Mexico City



Oviedo



Badajoz



Madrid



Sevilla

# Sngular Oviedo

## Proyectos

- Zara: Java + React
- Randstad: .Net + Angular6 + Mobile (IOs y Adroid) + WordPress
- Capsa - .Net + Angular
- Tyssen, Gasori: IoT - .Net
- Oney: PFM - .Net + Angular
- Fundación Telefónica: QA - AWS + WSO2 + Microservicios NodeJS + WordPress + Angular)

## Perfiles

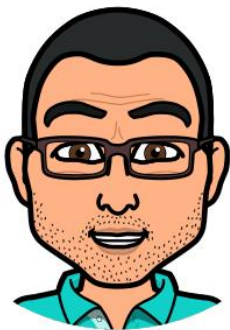
- Back
- Front
- Mobile
- IoT
- QA



# Introducción al Front mediante:







Juan Manuel Rodríguez Pérez



@juan\_manuel\_rp



jmrp81



Azahara Fernández Guizán



@Azahara\_fergui



azaharafernandezguizan

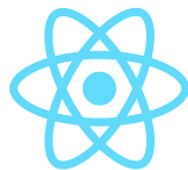
Afaya 



**La idea**



vs



MATERIAL





# Descripción de los frameworks



# Aurelia es una colección de módulos Javascript que juntos permiten crear aplicaciones web, móvil o escritorio a partir de código abierto y cumpliendo estándares web.

*Create next generation JavaScript apps today.*

## Forward-thinking

Written with next-generation EcmaScript. Integrates with Web Components. No external dependencies. Leverage the technology of the future but target today's mobile, desktop and browser environments.

## Two-Way Databinding

Our technology enables powerful two-way binding to any object. By using adaptive techniques we can select the most efficient way to observe each property in your model and automatically sync your UI with best-in-class performance.

## Routing & UI Composition

Leverage our advanced client-side router with its pluggable pipeline, dynamic route patterns, child routers and asynchronous screen activation. Don't need a router but need dynamic, data-driven UI composition? We do that too.

## Broad Language Support

Use ES5, ES 2015, ES 2016 and TypeScript. Aurelia's APIs were carefully designed to be consumed naturally from both today's and tomorrow's popular web programming languages.

## Modern Architecture

Rather than taking the monolithic framework approach, Aurelia is composed of smaller, focused modules. Use them together as a full-featured framework or pick and choose to build a custom solution.

## Extensible HTML

Aurelia's extensible HTML compiler lets you create custom HTML elements, add custom attributes to existing elements and control template generation, all with full support for dynamic loading, databinding and high-performance batched rendering.

## MV\* with Conventions

Who wants to waste time writing tons of configuration code for their MV\* architecture? Simply leverage conventions to make constructing your app effortless. Don't like the conventions? Plug in your own or drop them altogether.

## Testable

By combining ES 2015 modules with a simple, yet powerful Dependency Injection Container, we make it easy for you to create highly cohesive, yet minimally coupled code, making unit testing a snap.

## Open Collective

*Proud financial backers of Aurelia*



**Angular es un framework para aplicaciones web desarrollado en TypeScript, de código abierto, mantenido por Google.**



## DEVELOP ACROSS ALL PLATFORMS

Learn one way to build applications with Angular and reuse your code and abilities to build apps for any deployment target. For web, mobile web, native mobile and native desktop.

## INCREDIBLE TOOLING

Build features quickly with simple, declarative templates. Extend the template language with your own components and use a wide array of existing components. Get immediate Angular-specific help and feedback with nearly every IDE and editor. All this comes together so you can focus on building amazing apps rather than trying to make the code work.

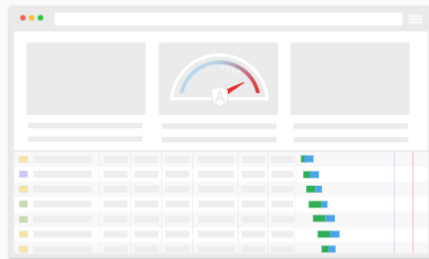
## LOVED BY MILLIONS

From prototype through global deployment, Angular delivers the productivity and scalable infrastructure that supports Google's largest applications.

## SPEED & PERFORMANCE

Achieve the maximum speed possible on the Web Platform today, and take it further, via Web Workers and server-side rendering.

Angular puts you in control over scalability. Meet huge data requirements by building data models on RxJS, Immutable.js or another push-model.







**React es una biblioteca Javascript de código abierto para crear interfaces de usuario. Es mantenido por Facebook, Instagram y una comunidad de desarrolladores independientes y compañías.**

## A Simple Component

React components implement a `render()` method that takes input data and returns what to display. This example uses an XML-like syntax called JSX. Input data that is passed into the component can be accessed by `render()` via `this.props`.

**JSX is optional and not required to use React.** Try the [Babel REPL](#) to see the raw JavaScript code produced by the JSX compilation step.

## Component-Based

Build encapsulated components that manage their own state, then compose them to make complex UIs.

Since component logic is written in JavaScript instead of templates, you can easily pass rich data through your app and keep state out of the DOM.

## Declarative

React makes it painless to create interactive UIs. Design simple views for each state in your application, and React will efficiently update and render just the right components when your data changes.

Declarative views make your code more predictable and easier to debug.

LIVE JSX EDITOR	JSX?	RESULT
<pre>class HelloMessage extends React.Component {   render() {     return (       &lt;div&gt;         Hello {this.props.name}       &lt;/div&gt;     );   } }  ReactDOM.render(   &lt;HelloMessage name="Taylor" /&gt;,   mountNode );</pre>	<input checked="" type="checkbox"/>	Hello Taylor

## Learn Once, Write Anywhere

We don't make assumptions about the rest of your technology stack, so you can develop new features in React without rewriting existing code.

React can also render on the server using [Node](#) and power mobile apps using [React Native](#).



**Vue.js** es un framework Javascript de Código abierto, creado para construir interfaces de usuario.

## Versatile

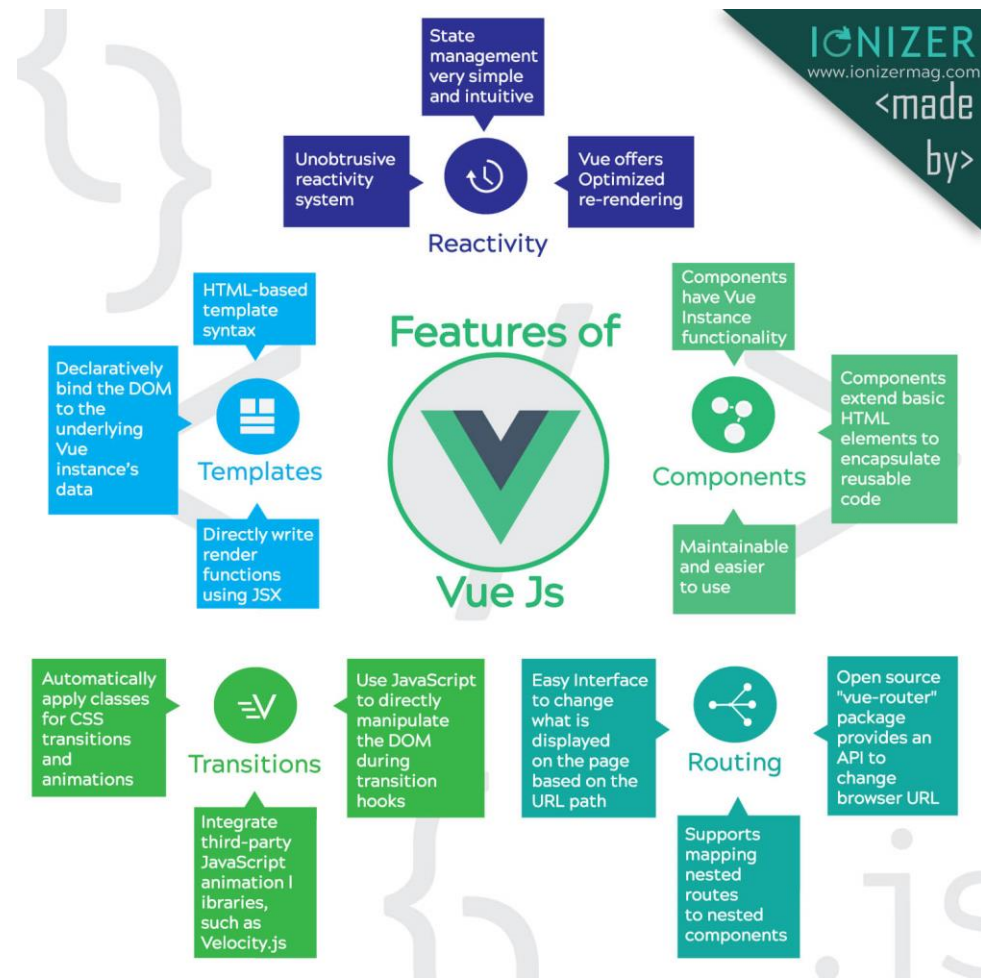
An incrementally adoptable ecosystem that scales between a library and a full-featured framework.

## Approachable

Already know HTML, CSS and JavaScript? Read the guide and start building things in no time!

## Performant

20KB min+gzip Runtime  
Blazing Fast Virtual DOM  
Minimal Optimization Efforts



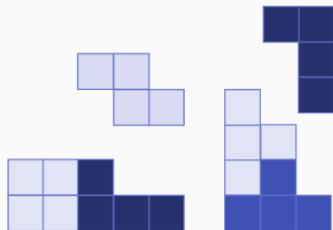


MATERIAL

**Material design es una normativa de diseño enfocado en la visualización del sistema operativo Android, además en la web y en cualquier plataforma. Fue desarrollado por Google**

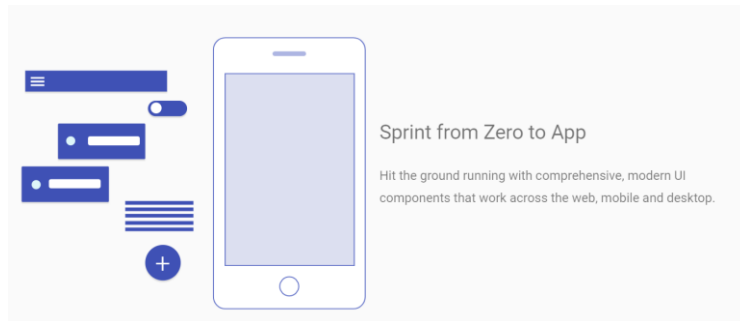
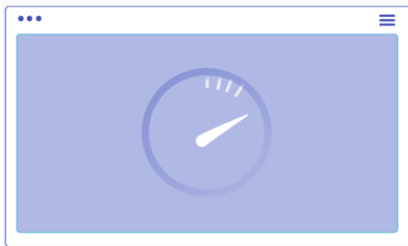
#### Optimized for Angular

Built by the Angular team to integrate seamlessly with Angular.



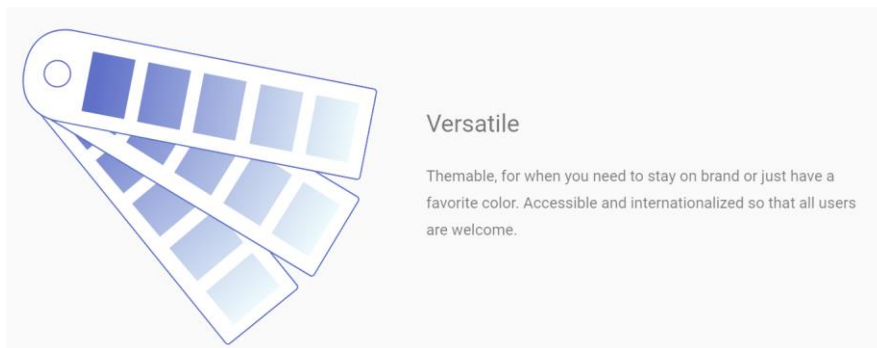
#### Fast and Consistent

Finely tuned performance, because every millisecond counts. Fully tested across modern browsers.



#### Sprint from Zero to App

Hit the ground running with comprehensive, modern UI components that work across the web, mobile and desktop.



#### Versatile

Themable, for when you need to stay on brand or just have a favorite color. Accessible and internationalized so that all users are welcome.



**Ionic es un SDK de código abierto para desarrollo de aplicaciones móviles híbridas creado por Drifti Co. La primera version se creó sobre AngularJS y Apache Cordova, pero las mas nuevas ya vienen creadas solo sobre Angular.**

## Everything in one experience.

Spend more time on what matters. **Ionic Pro** takes care of the rest, with a suite of powerful mobile development tools and services for apps of all shapes and sizes.



### Better apps

Build apps your users will love, with simple app sharing, feedback and monitoring to craft the perfect app experience.



### Faster development

Quickly prototype and test new concepts, and speed up development to bring more ideas to market in less time.



### Happier devs & teams

Keep it simple with developer-friendly tools, easy collaboration, and everything you need in one place.



**NativeScript es un framework open source para desarrollar aplicaciones iOS y Android. Fue desarrollado e ideado originalmente por Progress y las aplicaciones pueden escribirse tanto en Javascript como en TypeScript.**



## Cross-Platform

Write and deploy native mobile apps for iOS and Android from a single codebase. Use Angular or Vue to share existing web-based code.



## Strong Backing

[Backed by Progress \[PRGS\]](#) - Decades of experience creating and supporting software for developers. Mission-critical [enterprise support](#) is available.



## Free and Open Source

NativeScript is 100% [free and open source](#), Apache 2 licensed.



## Native Performance

Beautiful, accessible, platform-native UI - without WebViews. Define once and let NativeScript adapt to run everywhere, or tailor the UI to specific devices and screens. This is one of the reasons [SAP chose NativeScript](#).



## Extensible

Easily reuse existing plugins from npm, CocoaPods [iOS], and Gradle [Android] directly in NativeScript projects, plus hundreds of [NativeScript plugins](#).



## Easy to learn

Use the web skills you already have to develop truly native apps with JavaScript, CSS, and Native UI markup.





# Comparativas





MATERIAL

All-in-one

Estable

Isomorfico

Progresivo

Usabilidad

Multiplataforma

Nativo

Modulos

Mantenibilidad

Ciclo de vida

Ciclo de vida

Accesibilidad

Interfaz friendly

Rendimiento

Routing

Templates

Soporte

Soporte

Alta velocidad renderizado y eficiencia memoria

Soporte

Componentes con y sin estado

Vue.cli

Varios frameworks

Curva de aprendizaje

Rendimiento

Curva de aprendizaje



**Recursos**



<https://aurelia.io>

<https://www.uno-de-piera.com/aurelia-un-gran-framework-javascript>

<https://github.com/azaharafernandezguizan/STEMTrivial>



<https://reactjs.org>

<https://www.udemy.com/aprendiendo-react>

[@midudev](https://github.com/azaharafernandezguizan/STEMTrivialReact)



<https://github.com/jdonsan/estudiando-vue-js>

[@jdonsan](#)



<https://docs.nativescript.org/tutorial/chapter-0>

<https://github.com/jmrp81/NativeScript>



<https://angular.io/>

[@carlosazaustre](https://github.com/azaharafernandezguizan/STEMTrivialAngular)



MATERIAL

<https://material.angularjs.org/>

[@carlosazaustre](https://github.com/jmrp81/HelloWorldMaterialAngular)



<https://ionicframework.com/>

[@carlosazaustre](https://github.com/jmrp81/Ionic)



# Instalación



Instalar Angular



Instalar Angular Cli



Instalar Typescript



Crear AngularApp



Instalar Angular  
Material



Instalar Aurelia  
Cli



Crear AureliaApp

Instalar Node (npm)



Instalar React



Crear ReactApp



Instalar Vue-cli



Crear VueApp



Instalar Android  
Studio (emulador)



Instalar Ionic



Crear IonicApp



Instalar Android  
Platform



Instalar IOS  
Platform



Instalar Chocolatey



Instalar SDK  
Android con choco



Instalar  
Complementos  
SDK



Instalacion AVDs



Crear NSApp



Instalar Platforms





Instalar Node (npm) <https://nodejs.org/es/>

Intalar Angular: npm install -g angular

Instalar Angular Cli: npm install -g @angular/cli

Instalar Typescript: npm install -g typescript

Crear AngularApp: ng new HelloWorldMaterialAngular

Instalar Angular Material:  
npm install --save @angular/material @angular/cdk  
npm install --save @angular/animations  
npm install -g --save hammerjs



Instalar Aurelia Cli:  
npm install aurelia-cli -g

Crear Proyecto:  
au new [nameApp]



Instalar React:  
npm install -g create-react-app

Crear ReactApp:  
create-react-app [nameApp]



Instalar Vue-cli:  
npm -g install vue

Instalar Vue-cli:  
npm -g install vue-cli

Crear VueApp:  
vue init webpack my-app



Instalar Node (npm) <https://nodejs.org/es/>

Instalar Android Studio (emulador) o usar  
chocolatey

Instalar Ionic:  
npm install -g cordova ionic

Crear IonicApp:  
ionic start myApp [blank | tabs | sidemenu]

Instalar Android | ios Platform:  
cordova platform add [android | ios] --save



Instalar Chocolatey:  
@powershell -NoProfile -ExecutionPolicy  
unrestricted -Command "iex ((new-object  
net.webclient).DownloadString('https://chocolat  
ey.org/install.ps1'))" && SET  
PATH=%PATH%;%ALLUSERSPROFILE%\cho  
colatey\bin

Instalar node, JDK, SDK Android con choco:  
choco install nodejs-lts -y  
choco install jdk8 -y  
choco install android-sdk -y

Instalar Complementos SDK:  
"%ANDROID\_HOME%\tools\bin\ sdkmanager"  
"tools" "platform-tools" "platforms;android-25"  
"build-tools;25.0.2"  
"extras;android;m2repository"  
"extras;google;m2repository"

Instalar NativeScript:  
npm install -g nativescript

Crear App:  
tns create MyApp [template]



**Arquitectura  
generada**



#### helloWorldAngular

- ▶ e2e
- ▶ node\_modules
- ▶ src
- .editorconfig
- .gitignore
- angular.json
- package-lock.json
- package.json
- README.md
- tsconfig.json
- tslint.json

#### helloWorldAMaterial

- ▶ e2e
- ▶ node\_modules
- ▶ src
- .editorconfig
- .gitignore
- angular.json
- package-lock.json
- package.json
- README.md
- tsconfig.json
- tslint.json

#### HelloWorldAurelia

- ▶ .vscode
- ▶ aurelia\_project
- ▶ custom\_typings
- ▶ dist
- ▶ node\_modules
- ▶ src
- ▶ static
- ▶ test
- .editorconfig
- .gitignore
- favicon.ico
- index.ejs
- package-lock.json
- package-scripts.js
- package.json
- tsconfig.json
- tslint.json
- webpack.config.js

#### helloworld\_react

- ▶ node\_modules
- ▶ public
- ▶ src
- .gitignore
- package-lock.json
- package.json
- README.md

#### helloworld\_vue

- ▶ node\_modules
- ▶ public
- ▶ src
- .gitignore
- JS babel.config.js
- package-lock.json
- package.json

#### helloWorld\_Ionic

- ▶ .sourcemaps
- ▶ node\_modules
- ▶ platforms
- ▶ plugins
- ▶ resources
- ▶ src
- ▶ www
- .editorconfig
- .gitignore
- config.xml
- ionic.config.json
- package-lock.json
- package.json
- tsconfig.json
- tslint.json

#### HelloWorld\_NS

- ▶ app
- ▶ hooks
- ▶ node\_modules
- ▶ platforms
- package-lock.json
- package.json
- tsconfig.json



```
src
└─ app
  ├── app.component.css
  ├── app.component.html
  ├── app.component.spec.ts
  ├── app.component.ts
  ├── app.module.ts
  ├── assets
  ├── environments
  ├── browserslist
  ├── favicon.ico
  ├── index.html
  ├── karma.conf.js
  ├── main.ts
  ├── polyfills.ts
  ├── styles.css
  ├── test.ts
  ├── tsconfig.app.json
  ├── tsconfig.spec.json
  └── tslint.json
```

```
src
└─ app
  ├── Material
  │   ├── custom-material.ts
  │   ├── app.component.css
  │   ├── app.component.html
  │   ├── app.component.spec.ts
  │   ├── app.component.ts
  │   └── app.module.ts
  ├── assets
  ├── environments
  ├── browserslist
  ├── favicon.ico
  ├── index.html
  ├── karma.conf.js
  ├── main.ts
  ├── polyfills.ts
  ├── styles.css
  ├── test.ts
  ├── tsconfig.app.json
  ├── tsconfig.spec.json
  └── tslint.json
```

```
src
└─ resources
  ├── app.html
  ├── app.ts
  ├── environment.ts
  └── main.ts
```

```
src
└─ App.css
  ├── App.js
  ├── App.test.js
  ├── index.css
  ├── index.js
  ├── logo.svg
  └── registerServiceWorker.js
```

```
src
└─ assets
  ├── components
  │   ├── HelloWorld.vue
  │   ├── App.vue
  │   └── main.js
```

```
src
└─ app
  ├── app.component.ts
  ├── app.html
  ├── app.module.ts
  ├── app.scss
  ├── main.ts
  ├── assets
  ├── pages
  │   ├── home
  │   └── list
  ├── theme
  ├── index.html
  ├── manifest.json
  └── service-worker.js
```

```
app
└─ App_Resources
  ├── item
  │   ├── item-detail.component.html
  │   ├── item-detail.component.js
  │   ├── item-detail.component.ts
  │   ├── item.js
  │   ├── item.service.js
  │   ├── item.service.ts
  │   ├── item.ts
  │   ├── items.component.html
  │   ├── items.component.js
  │   ├── items.component.ts
  │   ├── app.component.html
  │   ├── app.component.js
  │   ├── app.component.ts
  │   ├── app.css
  │   ├── app.module.js
  │   ├── app.module.ngfactory.d.ts
  │   ├── app.module.ts
  │   ├── app.routing.js
  │   ├── app.routing.ts
  │   ├── main.aot.js
  │   ├── main.aot.ts
  │   ├── main.js
  │   └── main.ts
  ├── package.json
  └── README.md
```

# s|ngular

it can be done.



[www.sngular.team](http://www.sngular.team)

Spain | Mexico | United States

