



Angular intro

GFT INTERNAL TRAINING

INNOVATE. TRANSFORM. DELIVER.



AngularJS

It's just
Angular!

Angular

- a **platform** that makes it **easy** to build applications **with the web**
- (since version 2) is a completely rewrite of the previous versions
- it's a strategic technology in GFT

1.angular advantages

2.angular history

3.angular as a platform

4.semantic versioning

angular advantages

Faster

Render

2.5x ~~faster~~

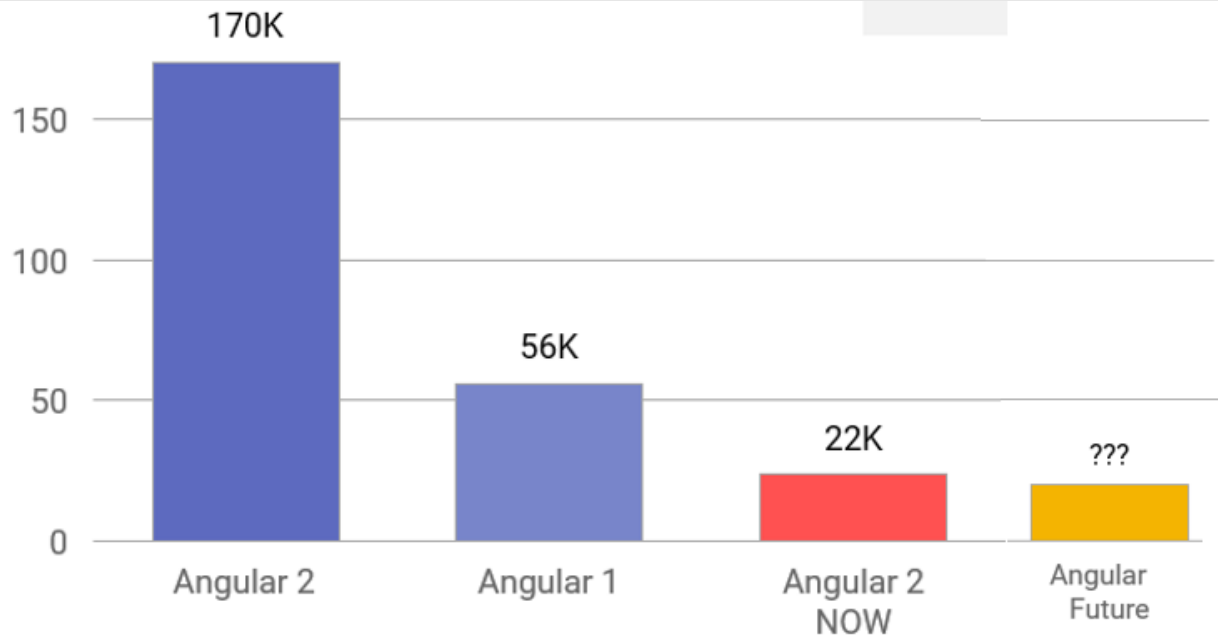
Re-render

4.2x ~~faster~~

Always

5x faster

Smaller

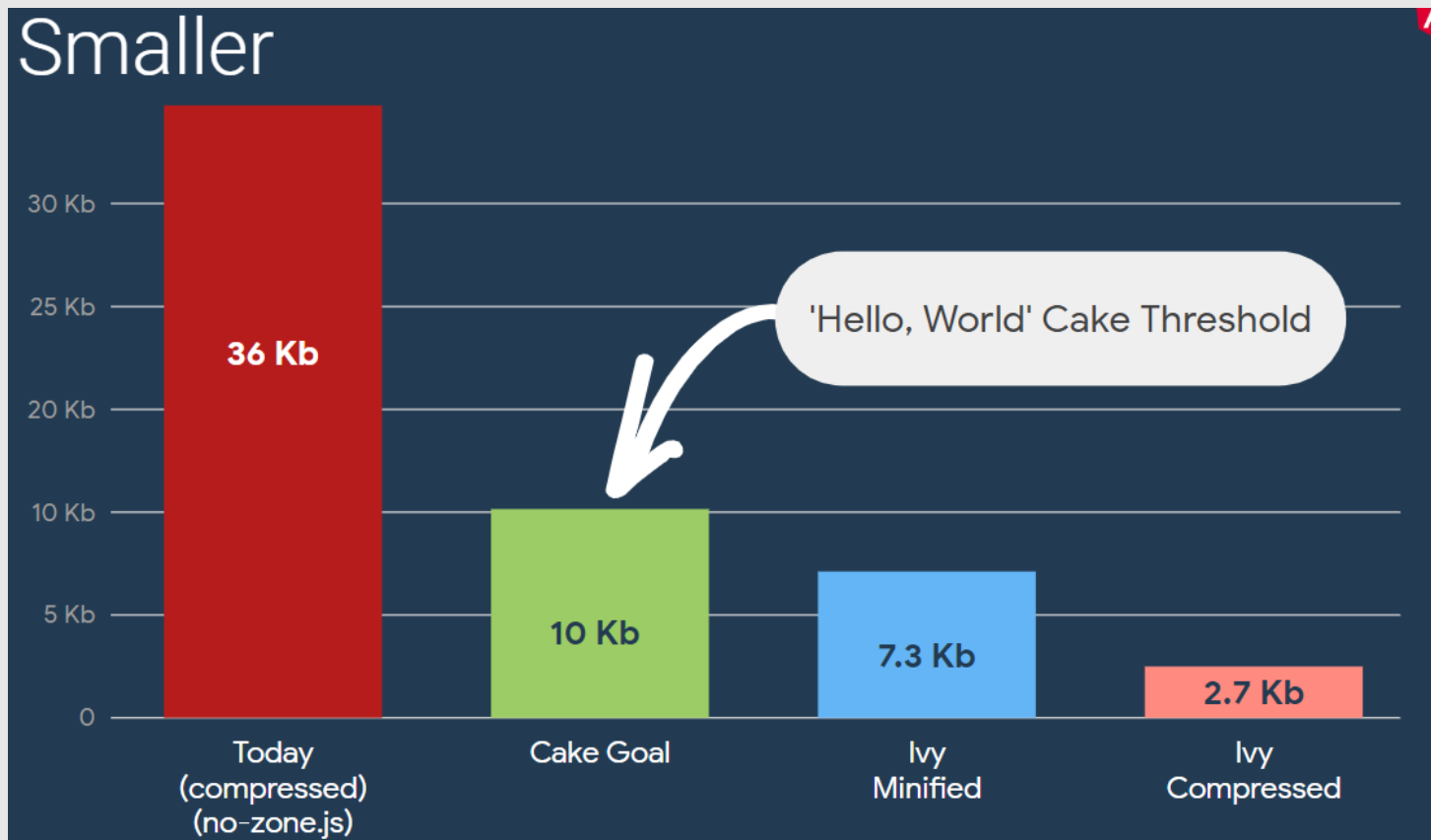


Audacious goal

10K Hello World

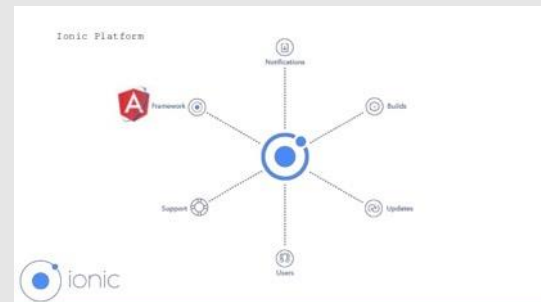
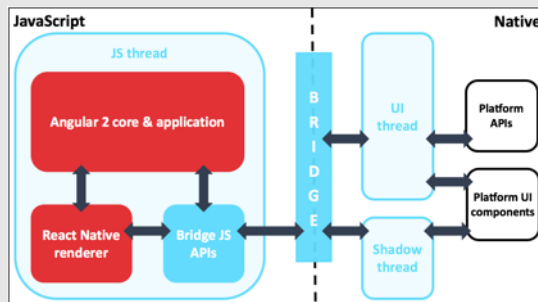


Smaller



<http://bit.ly/AngularMix-2018>

Cross Platform



Mobile first

Progressive Enhancement (Mobile-First)



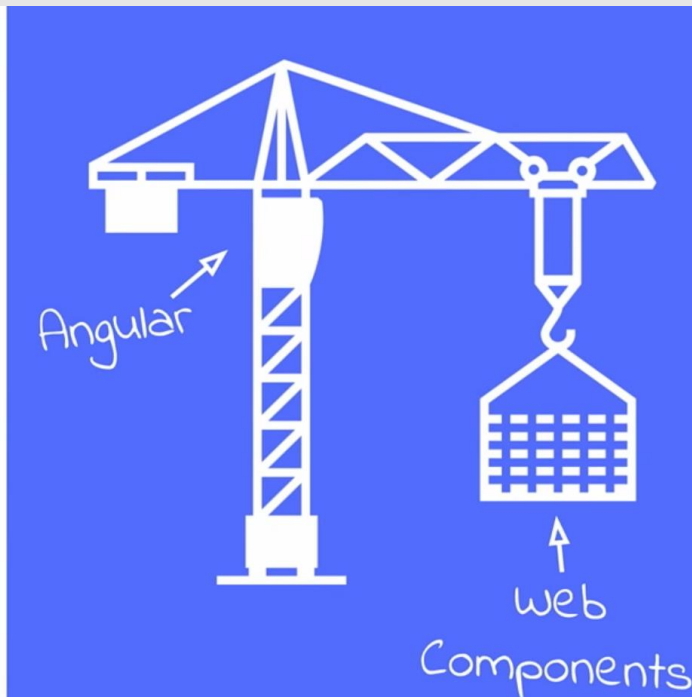
Graceful Degradation



Play nice with web components

Angular is great for structuring and orchestrating an application.

Web components are great for building reusable UI elements.



<https://www.youtube.com/watch?v=Ucq9F-7Xp8I>

Progressive Web Apps (PWA) out of the box

- server push notifications
- manifest
- service workers

<https://www.youtube.com/watch?v=C8KcW1Nj3Mw>

Embeddable in WebWorkers

WebWorkers useful for CPU intense tasks such as:

- parsing a large JSON Data Set
- image/sound processing
- real time analytics
-

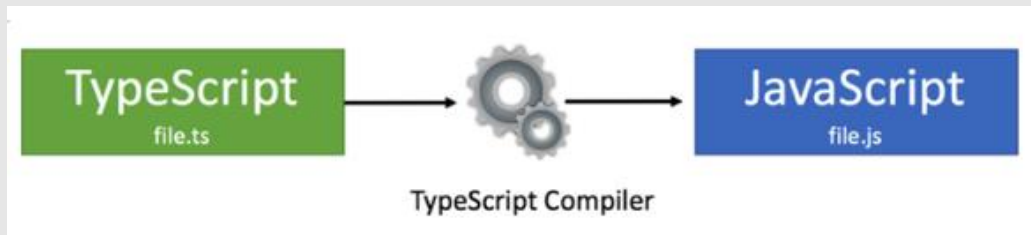
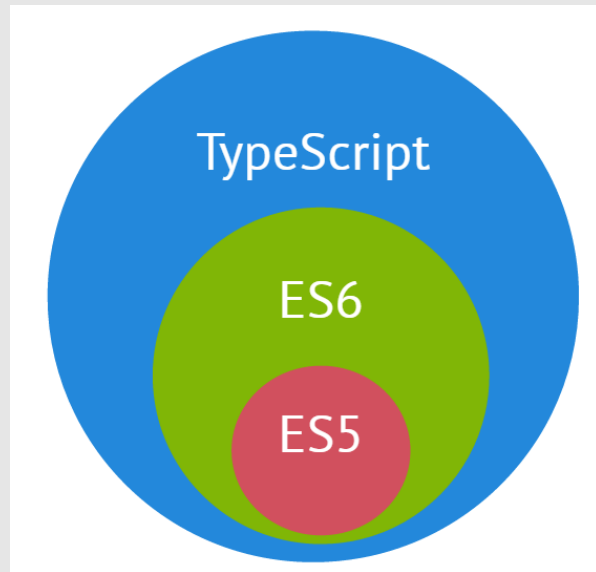
Reactive by default (RxJS)



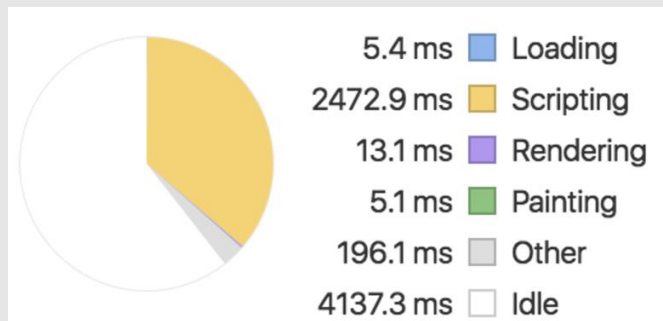
Being Reactive, my friend

Can write in TypeScript

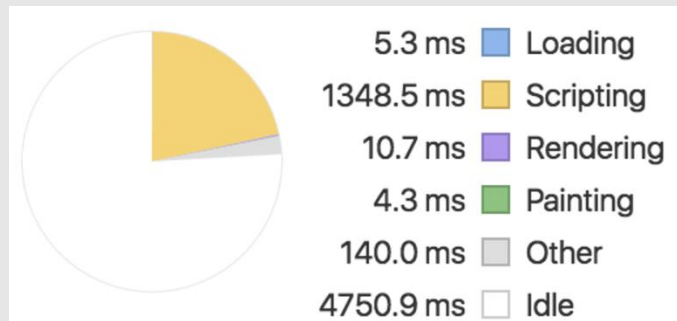
- better tooling: error checking
- state of the art JS:
 - arrow functions
 - modules
 - classes
- decorators



Ahead of Time Compilation (AoT)



initial rendering with JiT



initial rendering with AoT

JiT -> Just in Time compilation used in development

<http://blog.mgechev.com/2016/08/14/ahead-of-time-compilation-angular-offline-precompilation/>

Easy to learn

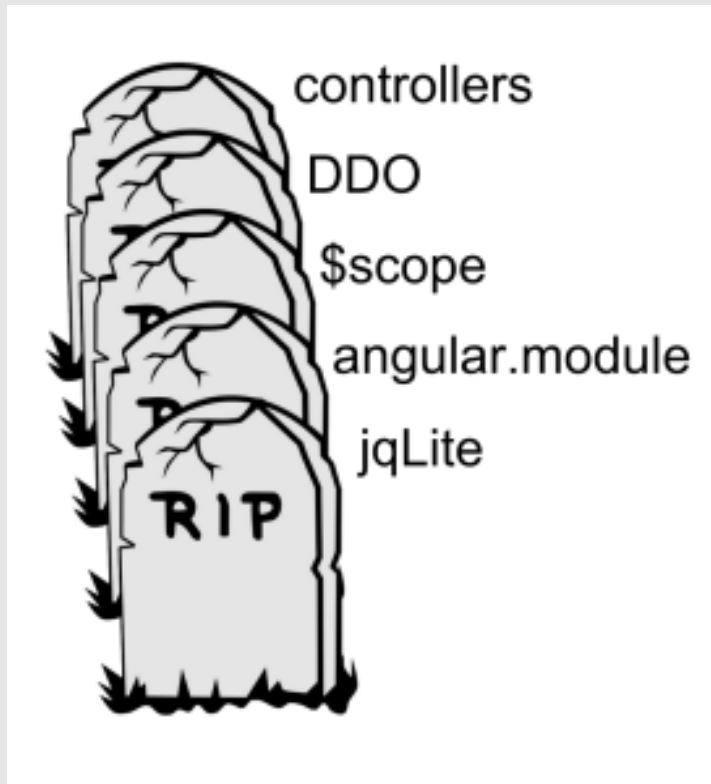
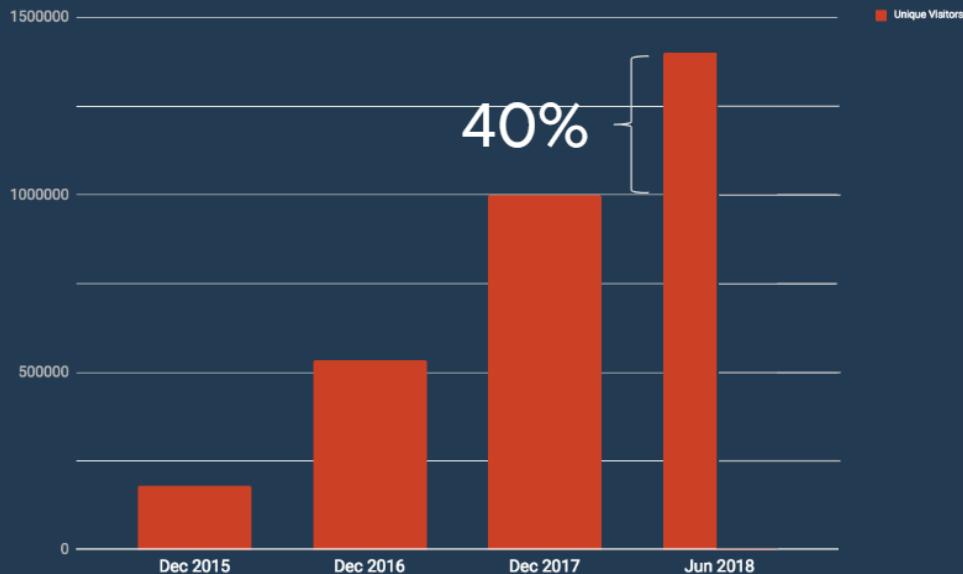


Image from Angular 2.0 Core presentation by Igor Minar & Tobias Bosch at ng-europe 2014

Strong, Steady Community Growth

30-day active visitors to angular.io



Angular grows much faster than AngularJS

Strong community



790+ Worldwide Meetups

angular.meetup.com

Brad Green Retweeted



ngGirls @AngularGirls · Feb 21

ngGirls is coming to Galicia, Spain! 🇪🇸 one day #Angular workshop introducing women to the tech world - March 9th, Vigo. Application is open and looking for #mentors! ng-girls.org/galicia/ Thanks @galstech_ and @GDGVigo for the support, and @AnaCidre_ for organizing! ❤️



ngGirls @ Galicia

ngGirls is an organization that aims to increase diversity in Tech
ng-girls.org

Awesome community



Pinned Tweet



Angular @angular · Apr 11

See all sessions from this year's ng-conf 2017 with Angular core team and many many others from around the world.

youtube.com/watch?v=kM5QBO...



Awesome community



Madrid



Angular Valencia

COMMUNITY

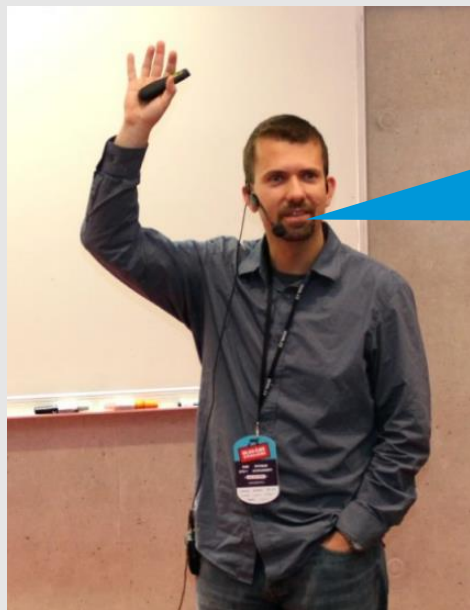


Angular and beers
Barcelona

angular history

Angular history

AngularJS was created as a side project by Misko Hevery in 2009 at Google



I bet you i could rewrite
Goggle feedback app
(17,000 lines of code,
6 months by a team)
in 2 weeks!!

He failed: it took him 3 weeks and 1,500 lines of code

angular origin

<https://www.youtube.com/watch?v=r1A1VR0ibIQ>

Angular

AngularJS

2010	Angular 1.0
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2013	Angular 1.2
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2014	Angular 1.3
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2015 May	Angular 1.4
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2016 February	Angular 1.5
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2016 December	Angular 1.6
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2018	Angular 1.7
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with
components



Angular

2014 Angular 2 announced

2016 September	Angular 2.0
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2017 March	Angular 4.0
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2017 November	Angular 5.0
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2018 May	Angular 6.0
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2018 October	Angular 7.0
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each 6 months	
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“almost automatic” upgrades



after that any new feature or fix with breaking changes
and 3 year of Long Term Support (LTS)

AngularJS vs Angular



AngularJS
1.7.5



Angular
7.0.0

Last releases as of october 2018

angularJS future

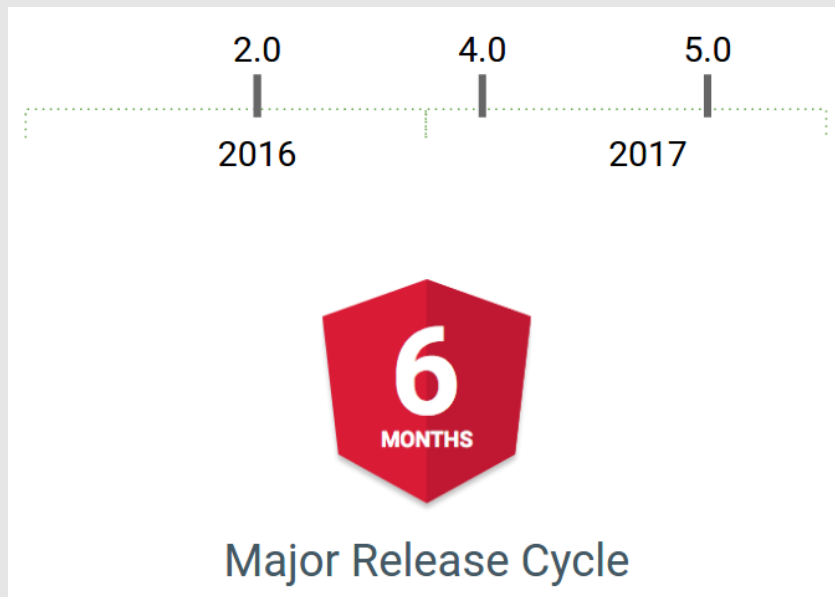
The team is currently working towards a release of AngularJS 1.7.0 and we will continue development of 1.7 through June 30, 2018. On July 1, we will enter a 3 year period of Long Term Support (LTS).

- **January 1—June 30, 2018** AngularJS 1.7 Active Development
- **July 1, 2018—June 30, 2021** AngularJS 1.7 LTS Period

After the release of 1.7.0 the team does not intend to merge any feature or fix that will require even a minor breaking change.

<https://blog.angular.io/stable-angularjs-and-long-term-support-7e077635ee9c>

Angular release cycle



Tools to update



**KEEP
CALM
AND
NG
UPDATE**

<https://itnext.io/dont-be-afraid-and-just-ng-update-1ad096147640>

Angular as a platform

Angular as a platform

Fully supported, fully integrated



Angular



Protractor



Forms



PWA



Augury



Language
Services



Router



Elements



CDK



Universal



Karma



Labs



Compiler



i18n



Http



Material



Animations



CLI

<http://bit.ly/AngularMix-2018>

Angular material

<https://material.angular.io/>



Protractor & karma

- testing configured out of the box
- karma for unit tests
- protractor for end-to-end

Angular language services

allows in IDE`s

- hinting
- code completion
- error reporting



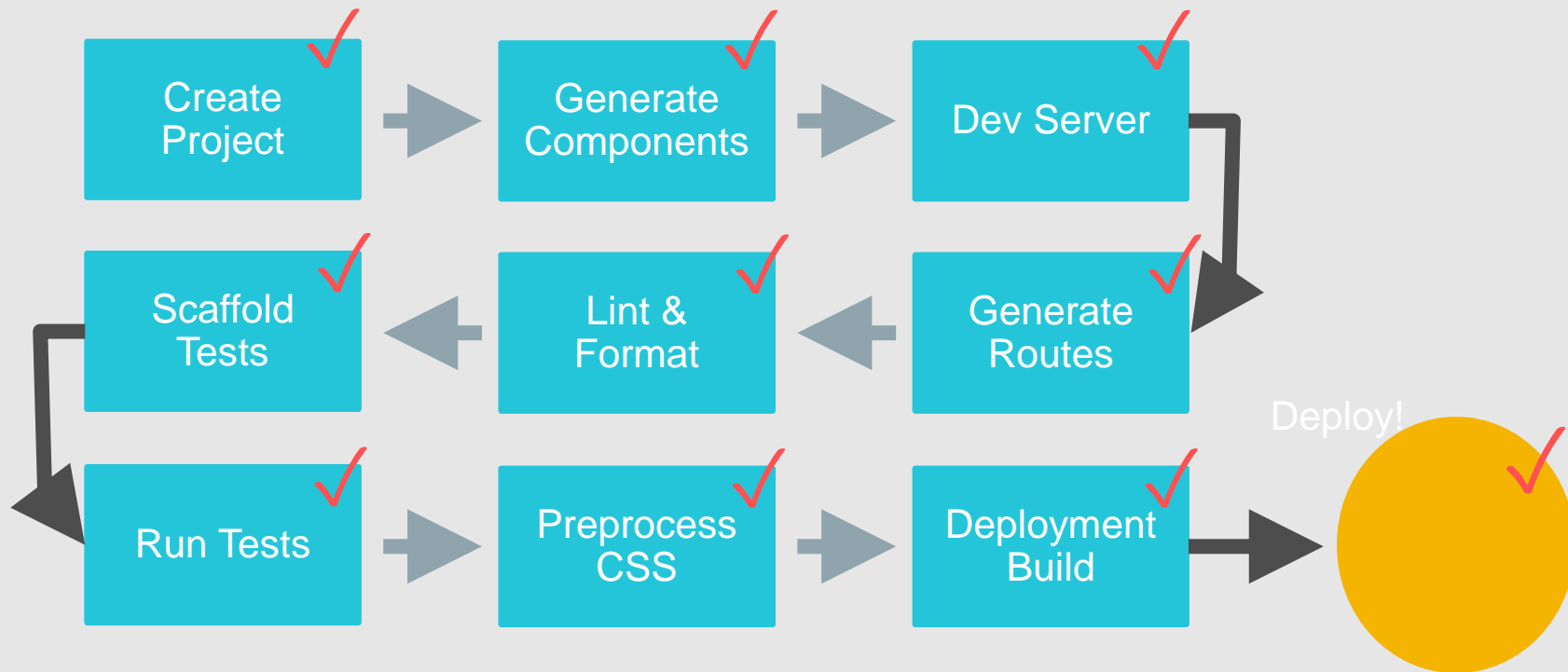
```
> npm install -g @angular/cli  
> ng new my-dream-app  
> cd my-dream-app  
> ng serve
```

Angular CLI

A command line interface for Angular

<https://cli.angular.io/>

Workflow Automation: Angular CLI



ANGULAR UNIVERSAL




Angular Universal

Server-side Rendering for Angular 2 apps

<https://universal.angular.io/>

- Better perceived performance
- SEO friendly
- GFT early adopter for apps already in production



Angular Augury

A Chrome and Firefox Dev Tools extension for debugging Angular applications.

INSTALL ON CHROME

<https://augury.rangle.io/>

Semantic versioning

Semantic versioning

<http://semver.org/>

Given a version number MAJOR.MINOR.PATCH, increment the:

1. MAJOR version when you make incompatible API changes,
2. MINOR version when you add functionality in a backwards-compatible manner, and
3. PATCH version when you make backwards-compatible bug fixes.

Additional labels for pre-release and build metadata are available as extensions to the MAJOR.MINOR.PATCH format.

Angular semantic versioning

Patch: 4.0.1

– Just fixes

Minor: 4.1.0

– New Features, Automated updates

Major: 5.0.0

– New Features, Simple updates

<https://www.youtube.com/watch?v=anzsE2TbCyk>

Time-based releases

Patch Version Every Week
Minor Version Every Month
Major Version Every 6 Months



Angular in GFT

Angular in GFT

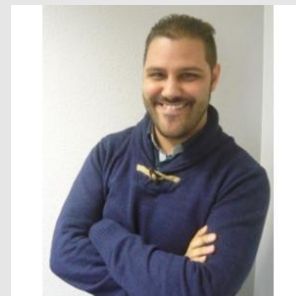
- Strategic technology
- AngularJS used in projects
- Angular in recent and future projects
- Active in the community (sponsor, speaker)
- Angular internal training available since 2017



These training materials were made with collaboration and supervision of GFT Modern UI Practice

We are specially thankful for Sema's support

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Javascript Architect



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