

Angular Keynote

ngChina, December 2018



Brad Green
Twitter: @bradlygreen

bit.ly/ngChina2018



@

Google



First eng
review:
Nov 16,
2010

“

You are all liars!

Urs Hözle

”

Later that day...



*Check out the framework Urs
doesn't want you to use!*

Angular in 2018

Used by more
Google
developers
than any
other front
end framework



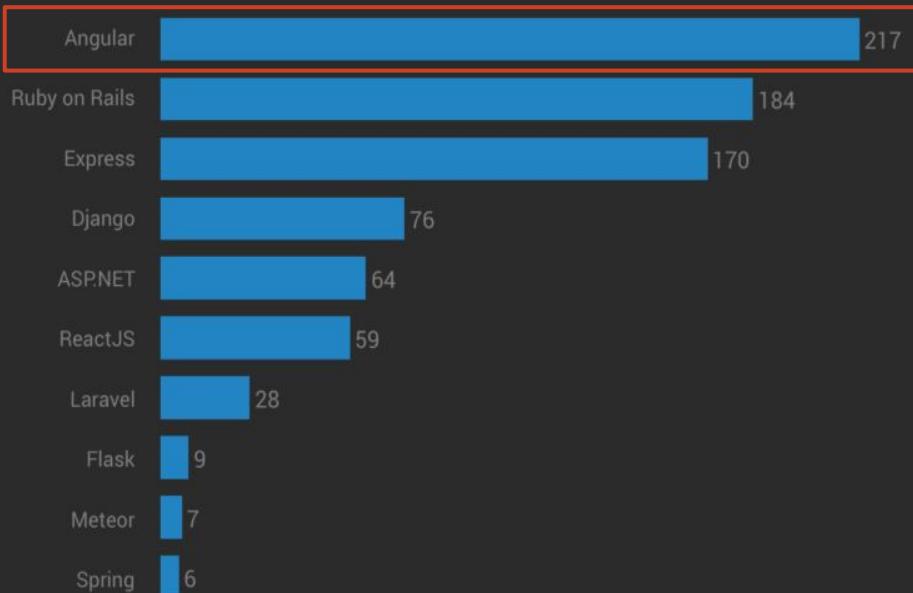
Angular Everywhere

Startups Choosing Angular

news.crunchbase.com/news/popular-web-frameworks-seed-early-stage-startups/

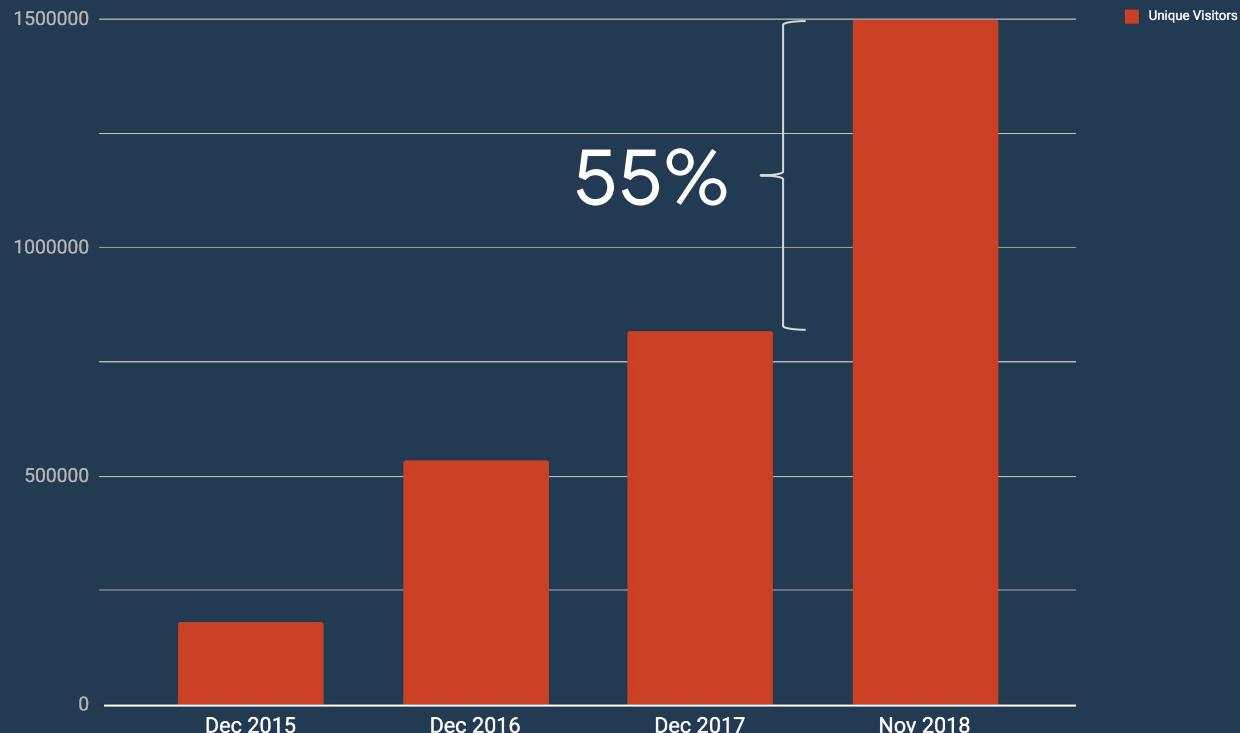
Most Popular Web Frameworks Among Seed And Early-Stage Startups

Count of US-based companies using each framework that raised a seed- or early-stage funding round since January 2017. Data sourced from Siftary using the Crunchbase marketplace.



crunchbase news

Monthly visitors to angular.io



Plus angular.cn!

ANGULAR 特性 文档 资源 会议 博客 关于中文版 **** 2018 NGCHINA @ 杭州! ** 搜索

一套框架，多种平台
移动端 & 桌面端

快速上手

横跨所有平台

学会用Angular构建应用，然后把这些代码和能力复用在多种
多种不同平台的应用上 — Web、移动 Web、移动应用、原生
应用和桌面原生应用。

速度与性能

通过Web Worker和服务端渲染，达到在如今(以及未来)的
Web平台上所能达到的最高速度。

... 其他内容部分被截断

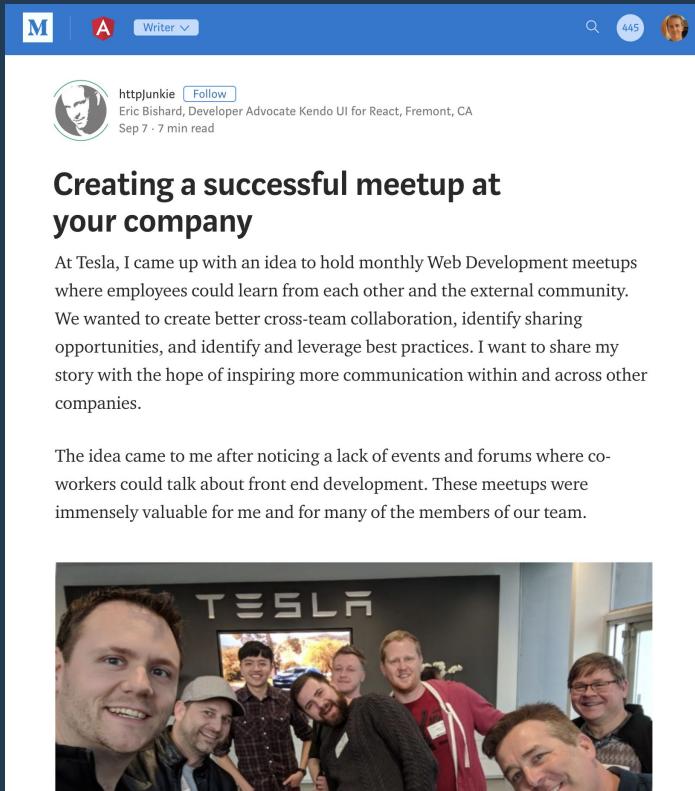
Help us grow



799 Worldwide Meetups

angular.meetup.com

Building meetups at work



The screenshot shows a Medium article page. At the top, there's a blue header bar with icons for 'M' (My profile), 'A' (Archive), and 'Writer'. Below the header, the author's profile picture is shown, followed by the name 'httpjunkie' and a 'Follow' button. The author is identified as 'Eric Bishard, Developer Advocate Kendo UI for React, Fremont, CA' and the post was published on 'Sep 7 · 7 min read'. The main title of the article is 'Creating a successful meetup at your company'. The article content discusses the author's experience at Tesla where they organized monthly web development meetups to promote cross-team collaboration and sharing best practices. It highlights the value of such meetups for communication both within and across teams. A photo at the bottom shows a group of people smiling in front of a Tesla logo.

Creating a successful meetup at your company

At Tesla, I came up with an idea to hold monthly Web Development meetups where employees could learn from each other and the external community. We wanted to create better cross-team collaboration, identify sharing opportunities, and identify and leverage best practices. I want to share my story with the hope of inspiring more communication within and across other companies.

The idea came to me after noticing a lack of events and forums where co-workers could talk about front end development. These meetups were immensely valuable for me and for many of the members of our team.



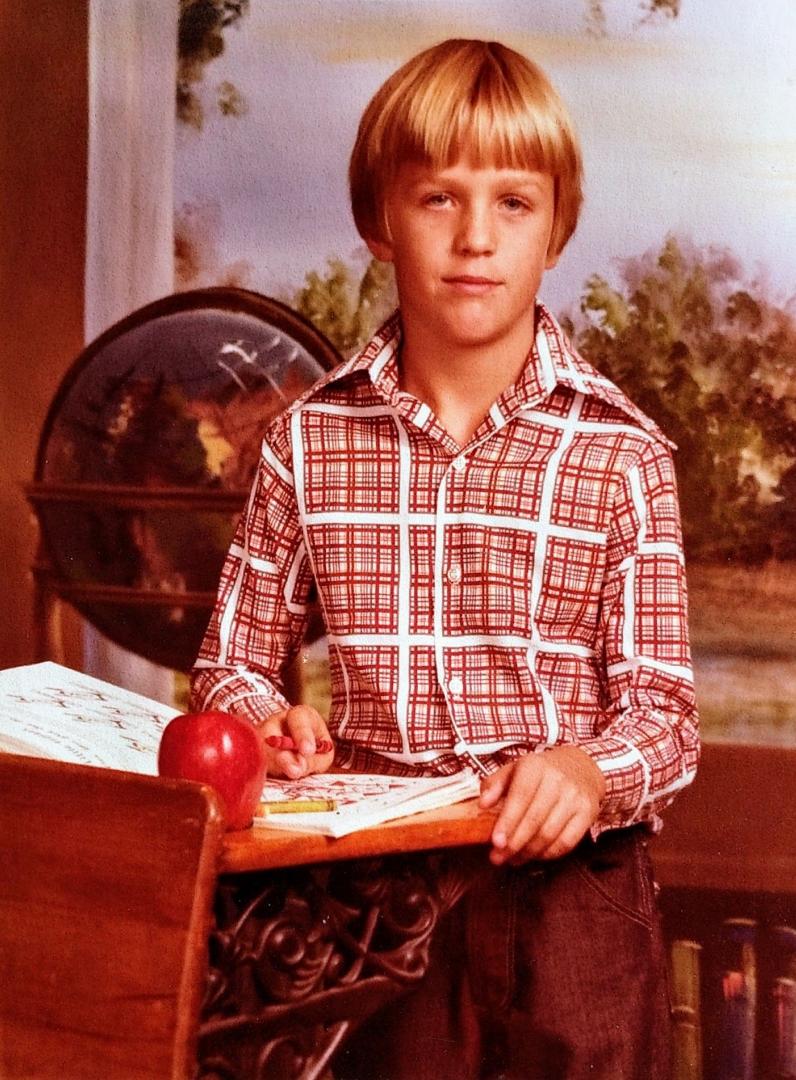
New concepts

Friendships / networks

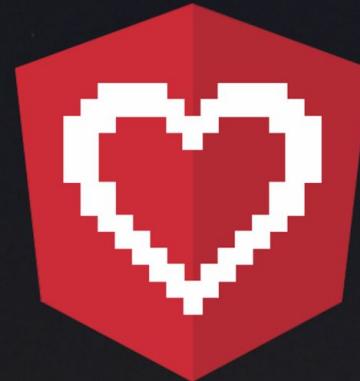
Company-wide visibility

Personal confidence

[Creating a Successful Meetup at Your Company](#)



"Brad will never go to college and will likely never have a full-time job"



ngGirls

Upcoming Events:

October 17th, 2018, Karlsruhe

November 5th, 2018, London

October 20th, 2018, Krakow

November 12th, 2018, Sofia

October 20th, 2018, Seattle

November 17th, Warsaw

October 27th, 2018, Vienna

November 24th, Munich

Corporate Sponsorship



Email

info@ng-girls.org

Individual Sponsorship

PATREON | Search [Create On Patreon](#) [Explore Creators](#) [Sign Up](#) [Log In](#)

ngGirls is creating communities of women programming with Angular

 Overview Posts [BECOME A PATRON](#)

1 patron
\$5 per month

+ FOLLOW SHARE

Welcome to the ngGirls Patreon page! :)

ngGirls aims to introduce women to the world of technology and increase the diversity. Angular is a great technology to start with. We believe this is a win-win situation!

Our main activity is one-day workshops, where the participants build and deploy their very first Web application with Angular. The day starts with an intro to Angular, and then, with the guidance of volunteer, experienced mentors, the participants build and deploy their very first Web application, by following our [open-source tutorial](#).

Sponsor

patreon.com/ngGirls

Mentoring



Volunteer

ng-girls.org/#description

Create excellent interactions



Daddy, do you pick your nose?

When you were a kid, did you
pick your nose and eat your
boogers?

Do you want to see me eat my
boogers?

Then don't look at me...

Contributor Code of Conduct

Version 0.3b-angular

As contributors and maintainers of the Angular project, we pledge to respect everyone who contributes by posting issues, updating documentation, submitting pull requests, providing feedback in comments, and any other activities.

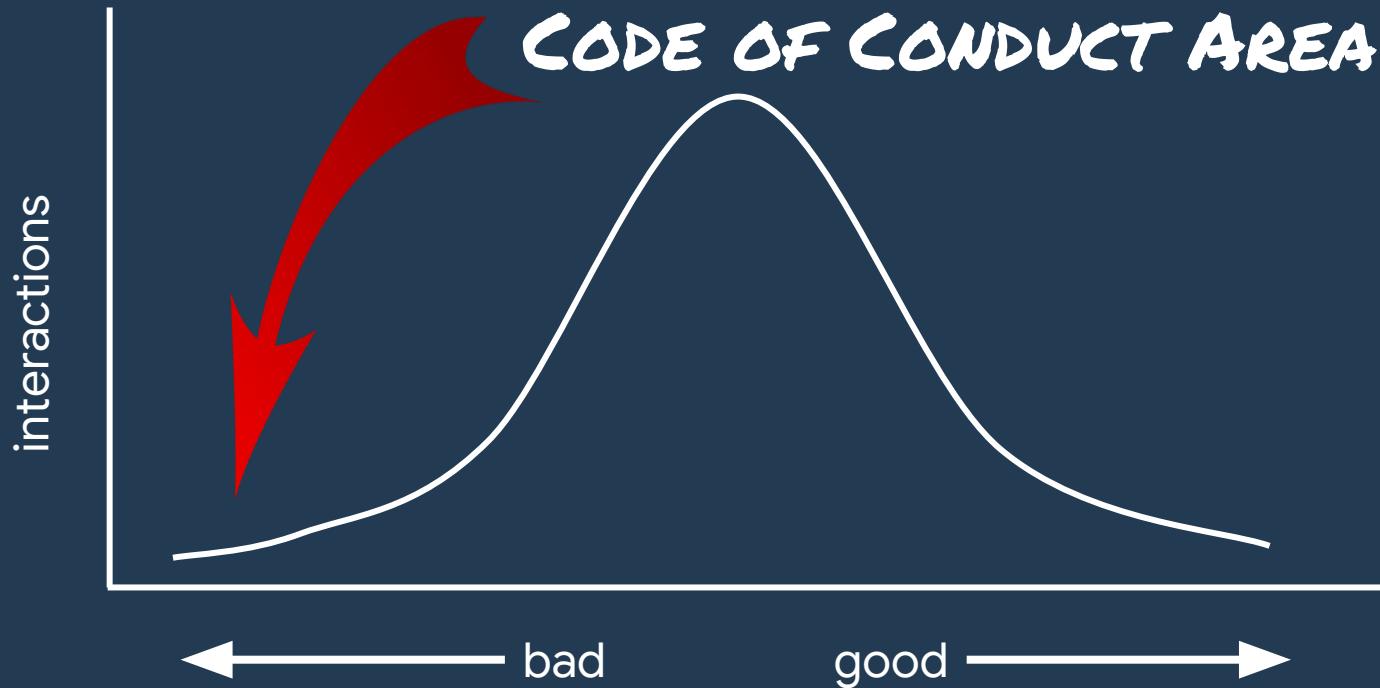
Communication through any of Angular's channels (GitHub, Gitter, IRC, mailing lists, Google+, Twitter, etc.) must be constructive and never resort to personal attacks, trolling, public or private harassment, insults, or other unprofessional conduct.

We promise to extend courtesy and respect to everyone involved in this project regardless of gender, gender identity, sexual orientation, disability, age, race, ethnicity, religion, or level of experience. We expect anyone contributing to the Angular project to do the same.

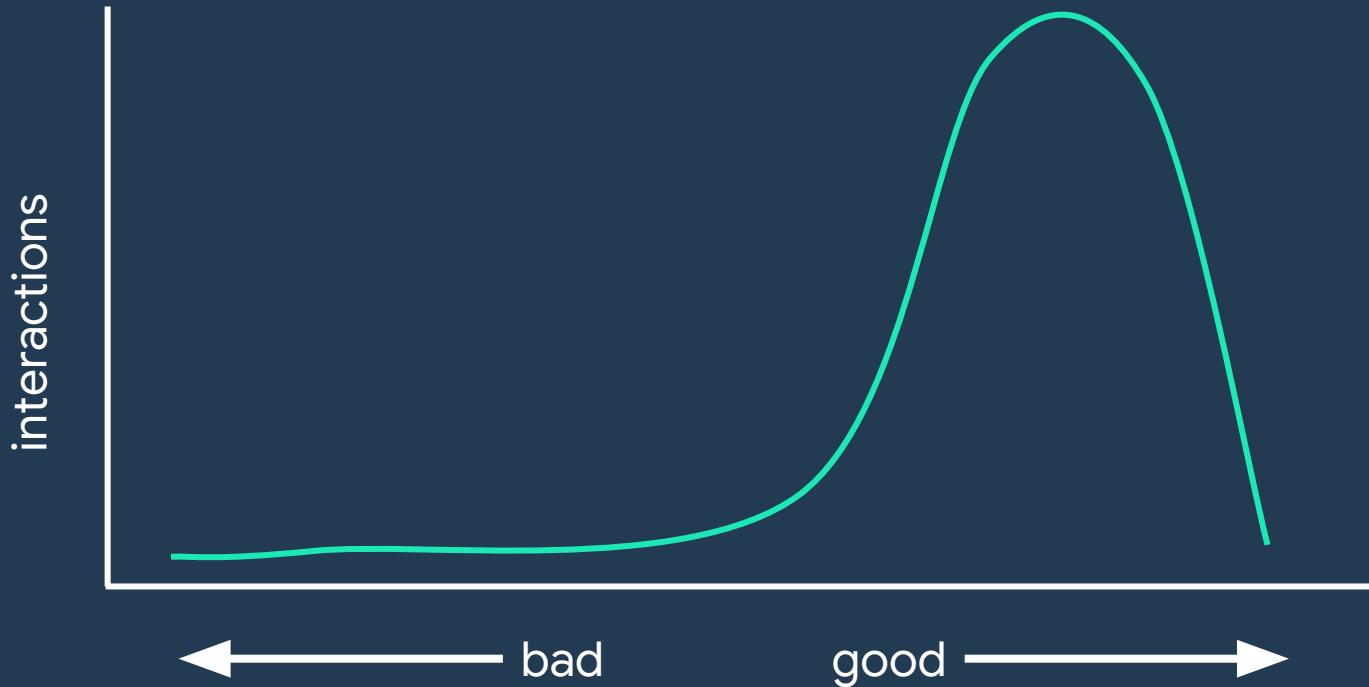
If any member of the community violates this code of conduct, the maintainers of the Angular project may take action, removing issues, comments, and PRs or blocking accounts as deemed appropriate.

If you are subject to or witness unacceptable behavior, or have any other concerns, please email us at conduct@angular.io.

Mostly good stuff happens



What we're after



What to do

Bad Stuff

Tell us

Good Stuff

Tell everyone!



Angular 6 & 7

Building a better developer experience

Fully supported, fully integrated



Angular



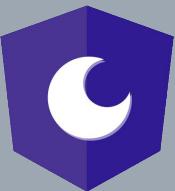
Protractor



Forms



PWA



Augury



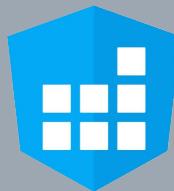
Language
Services



Router



Elements



CDK



Universal



Karma



Labs



Compiler



i18n



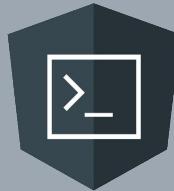
Http



Material



Animations

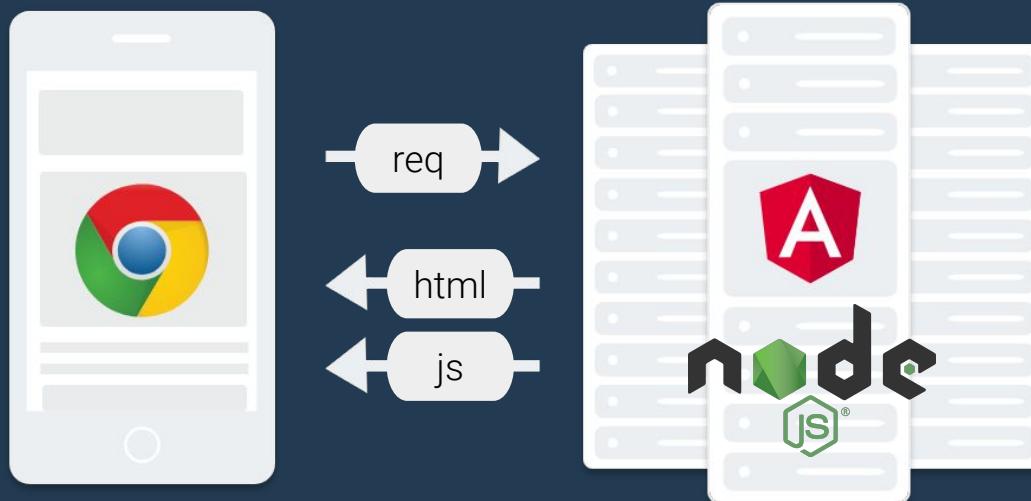


CLI

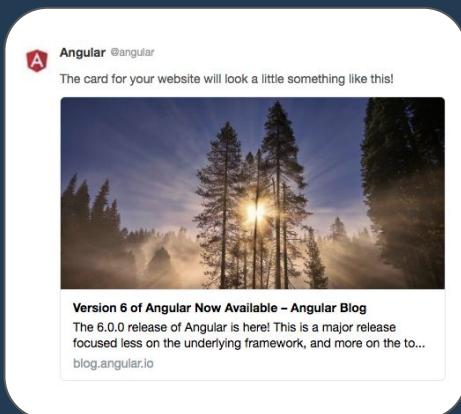
Angular Universal



Angular Universal



The cause for server side rendering



Preview



Speed



SEO

The cause for server side rendering

GOOD

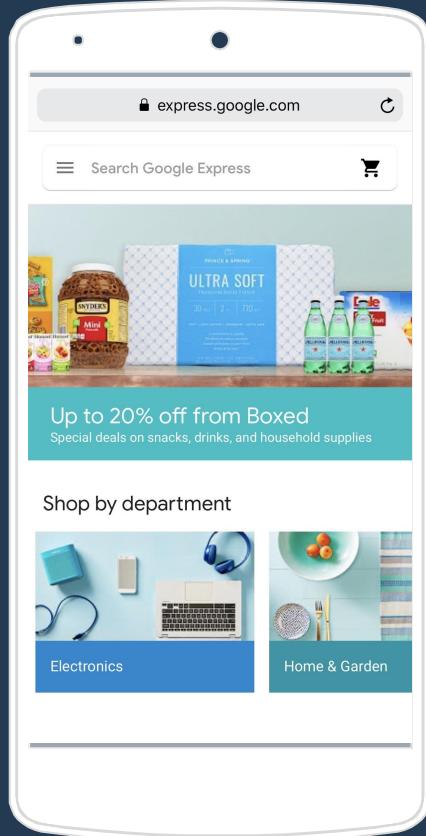
FAST

POPULAR

Preview

Speed

SEO



Shopping Express

**2.3x
Faster!**



Migration Assistant



AngularJS



Angular

Migration Assistant

Analyzes AngularJS apps

Outlines prep work

Recommends migration path

Extensible CLI Ecosystem



new



generate



update



add

component
directive
pipe
service

...

Using 'ng add'

```
> ng add @angular/pwa  
> ng add @angular/elements  
> ng add @angular/material  
> ng add @ng-bootstrap/schematics  
> ng add @clr/angular  
> ng add @nativescript/schematics
```

Per-library 'generate' schematics

```
> ng g @angular/material:material-nav --name=main-nav
```

Ecosystem supporting 'ng add'



Material



Elements



PWA



ng-bootstrap



Clarity

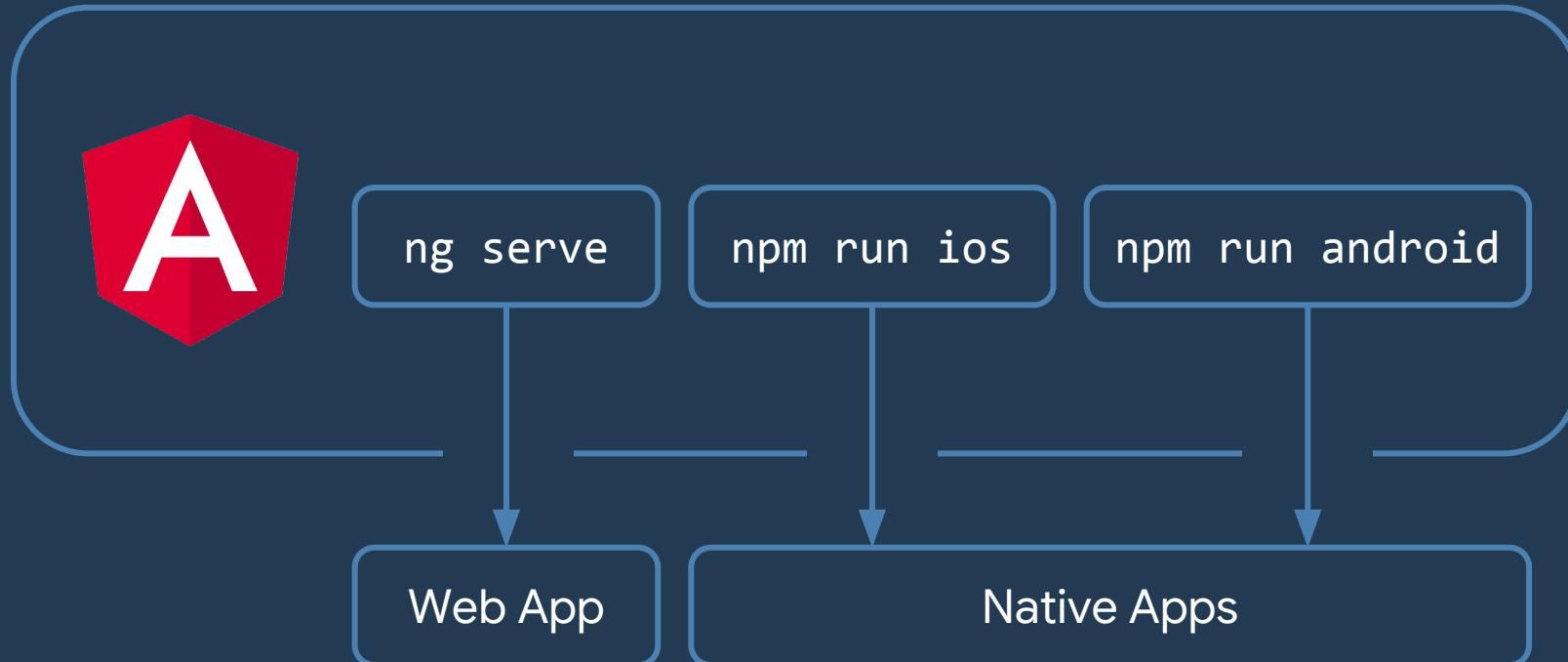


NativeScript

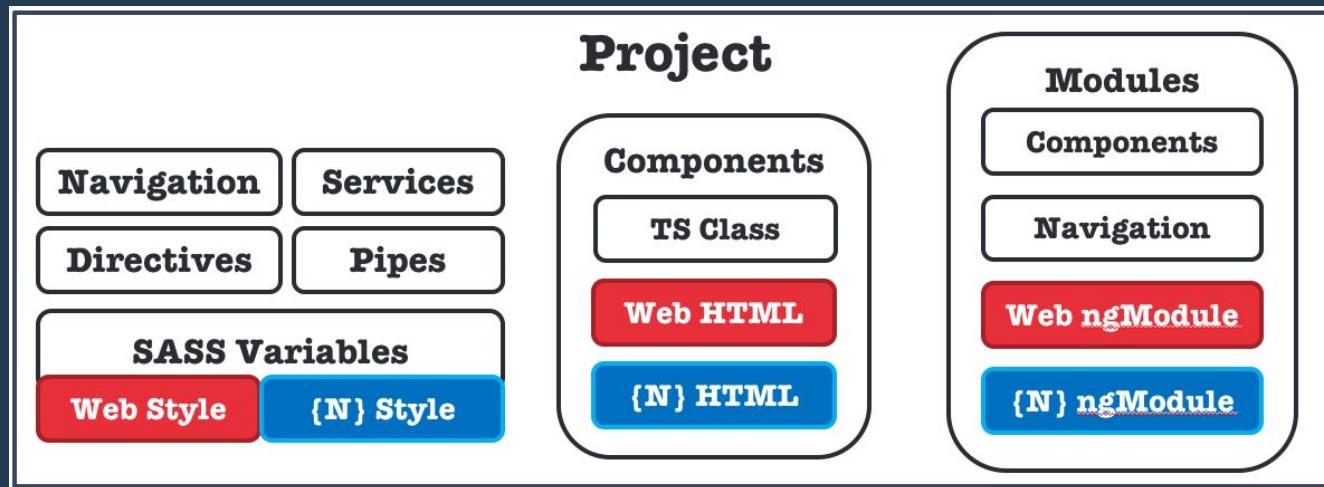
NativeScript



Code sharing with native mobile



Code sharing with native mobile



docs.nativescript.org/angular/code-sharing/intro

Angular Console

The screenshot shows the Angular Console application window. The title bar says "Angular Console". The main area has a dark header with "Create an Angular component" and a "Generate" button. Below is a section titled "Important fields" with three input fields:

- name ***: mycmp (with a note: "The name of the component. Required.")
- project ***: myproject (with a note: "The name of the project. Required.")
- module**: app (with a note: "apps\myproject\src\app\app.module.ts")

Below these are two optional fields:

- export**: A toggle switch that is off.
- Specifies if declaring module exports the component. (Default: false)**

At the bottom, there's a section titled "Optional fields" which is currently collapsed. At the very bottom, a terminal window shows the command and its output:

```
$ ng generate component mycmp --project=myproject --module=app --dry-run
CREATE apps/myproject/src/app/mycmp/mycmp.component.html (24 bytes)
CREATE apps/myproject/src/app/mycmp/mycmp.component.spec.ts (621 bytes)
CREATE apps/myproject/src/app/mycmp/mycmp.component.ts (265 bytes)
CREATE apps/myproject/src/app/mycmp/mycmp.component.css (0 bytes)
UPDATE apps/myproject/src/app/app.module.ts (619 bytes)
```

CLI Graphical UI

One-step install

Interactive command discovery

StackBlitz

The screenshot shows the StackBlitz IDE interface. On the left, the project structure is displayed with files like app.component.ts, app.component.html, and app.module.ts. The app.component.ts file is open in the editor, containing the following code:

```
1 import { Component } from '@angular/core';
2
3 @Component({
4   selector: 'my-app',
5   templateUrl: './app.component.html',
6   styleUrls: ['./app.component.css']
7 })
8
9 export class AppComponent {
10   name = 'Angular';
11 }
```

The preview window on the right shows the application running at <https://angular-sggyn3.stackblitz.io>, displaying the text "Hello Angular!" and the instruction "Start editing to see some magic happen :)".

CLI Schematics Extensions

Angular Language Service

Faster than desktop

CLI Docs now in angular.io

The screenshot shows a web browser displaying the Angular CLI Command Reference page at <https://next.angular.io/cli>. The page has a red header with the Angular logo and navigation links for Features, Docs, Resources, Events, and Blog. A search bar and social sharing icons are also present. The main content area is titled "CLI Command Reference" and describes the Angular CLI as a command-line tool for initializing, developing, and maintaining Angular applications. It includes sections for "Getting Started", "Installing Angular CLI", and a list of commands under "CLI COMMANDS".

Angular - CLI Command Reference

Secure | <https://next.angular.io/cli>

Angular

FEATURES DOCS RESOURCES EVENTS BLOG

Search [Twitter](#) [GitHub](#)

GETTING STARTED

TUTORIAL >

FUNDAMENTALS >

TECHNIQUES >

SETUP & DEPLOYMENT >

RELEASE INFORMATION >

QUICK REFERENCE >

API

CLI COMMANDS ▾

- Using the CLI
- ng add
- ng build
- ng config
- ng doc
- ng e2e

CLI Command Reference

The Angular CLI is a command-line tool that you use to initialize, develop, scaffold, and maintain Angular applications.

Getting Started

Installing Angular CLI

The current version of Angular CLI is 6.x.

- Both the CLI and the projects that you generate with the tool have dependencies that require Node 8.9 or higher, together with NPM 5.5.1 or higher.
- Install the CLI using npm: `npm install -g @angular/cli`
- The CLI is an open-source tool: <https://github.com/angular/angular-cli/tree/master/packages/angular-cli>

For details about changes between versions, and information about updating from previous releases, see the Releases tab on GitHub.

Basic workflow

Material & CDK

Angular Material Design Components

| | | | | | | |
|---------------|----------|--------------|-----------|---------|--------------|--------|
| auto-complete | badge | bottom sheet | button | card | checkbox | chips |
| date-picker | dialog | expansion | grid-list | icon | input | list |
| menu | progress | radio | select | sidenav | slide toggle | slider |
| snack bar | stepper | table | tabs | toolbar | tooltip | tree |

Angular Component DevKit (CDK)

Behaviors

Accessibility

Bidirectionality

Drag & Drop

Layout

Observers

Overlay

Portal

Scrolling

Virtual Scroll

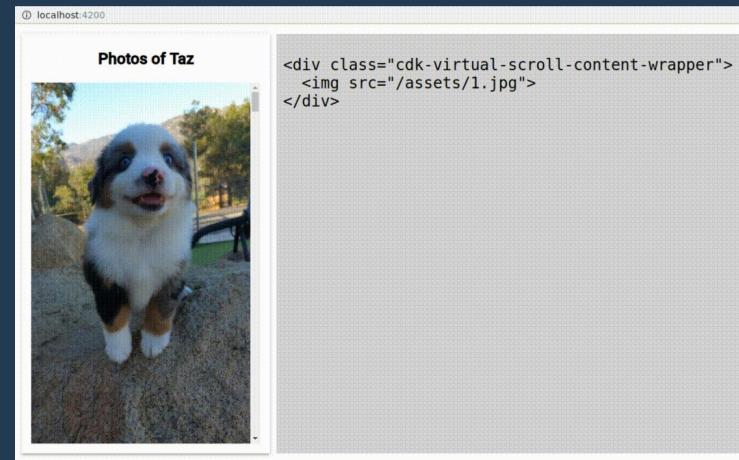
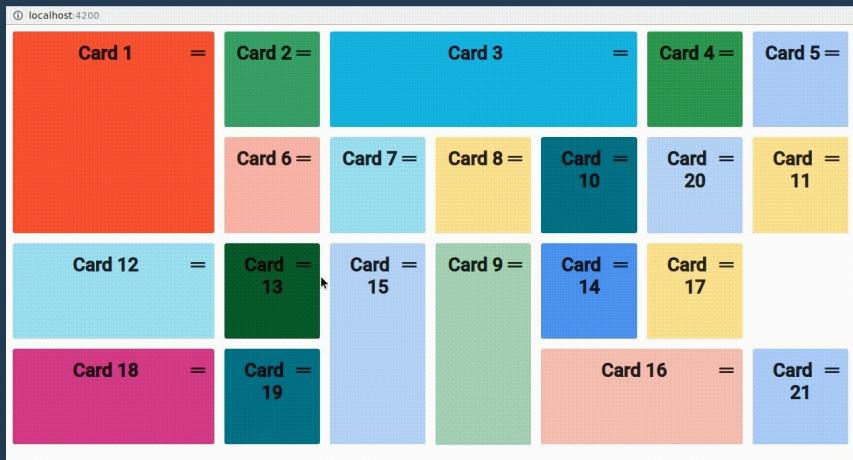
Generic Components

Stepper

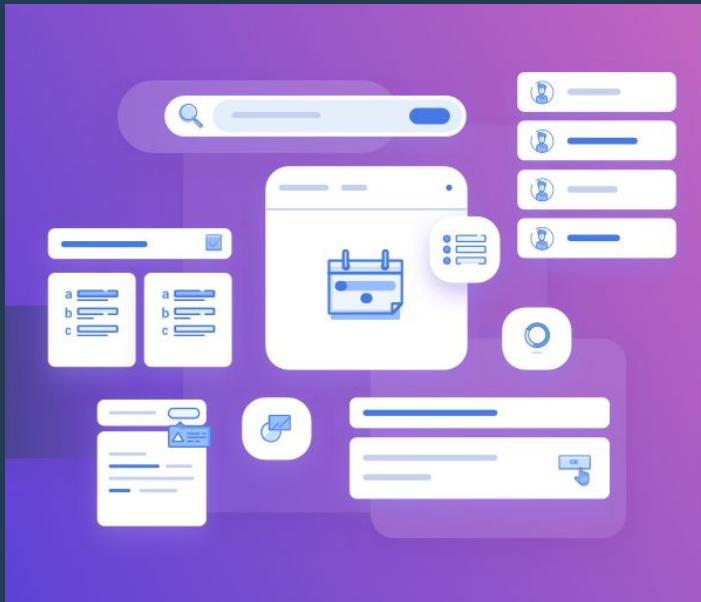
Table

Tree

Virtual Scroll & Drag-n-Drop



Nebular Using CDK



Nebular

- 30+ FRESH COMPONENTS
- 3 VISUAL THEMES
- 3 AUTH STRATEGIES
- SECURITY



Star

2,145

downloads

188k

akveo.github.io/nebular/

The image shows a comparison between the Angular Material design system and the Angular Codesign tool.

Angular Material (Left):

- Header:** Angular Material 7.0.0
- Theme:** Google Material
- Color:** Primary color is set to #1A73E8 (Material 500).
- Typography:** Headline 6 is selected.
- Icons:** A color palette and icon editor are visible.
- Components:** Examples of Buttons, Overline, and Buttons are shown.

Angular Codesign (Right):

- Header:** design-test, Start page
- Size:** Pixel 2 XL (448 W, 768 H)
- Background:** FPO
- Image:** None
- Padding:** 0 (T, R, B, L)
- Layout:** Flex rows
- Main axis:** Start
- Cross axis:** Center
- Distribution:** Space between
- Overflow:** Scroll
- Present:** Instantly

Central Text:

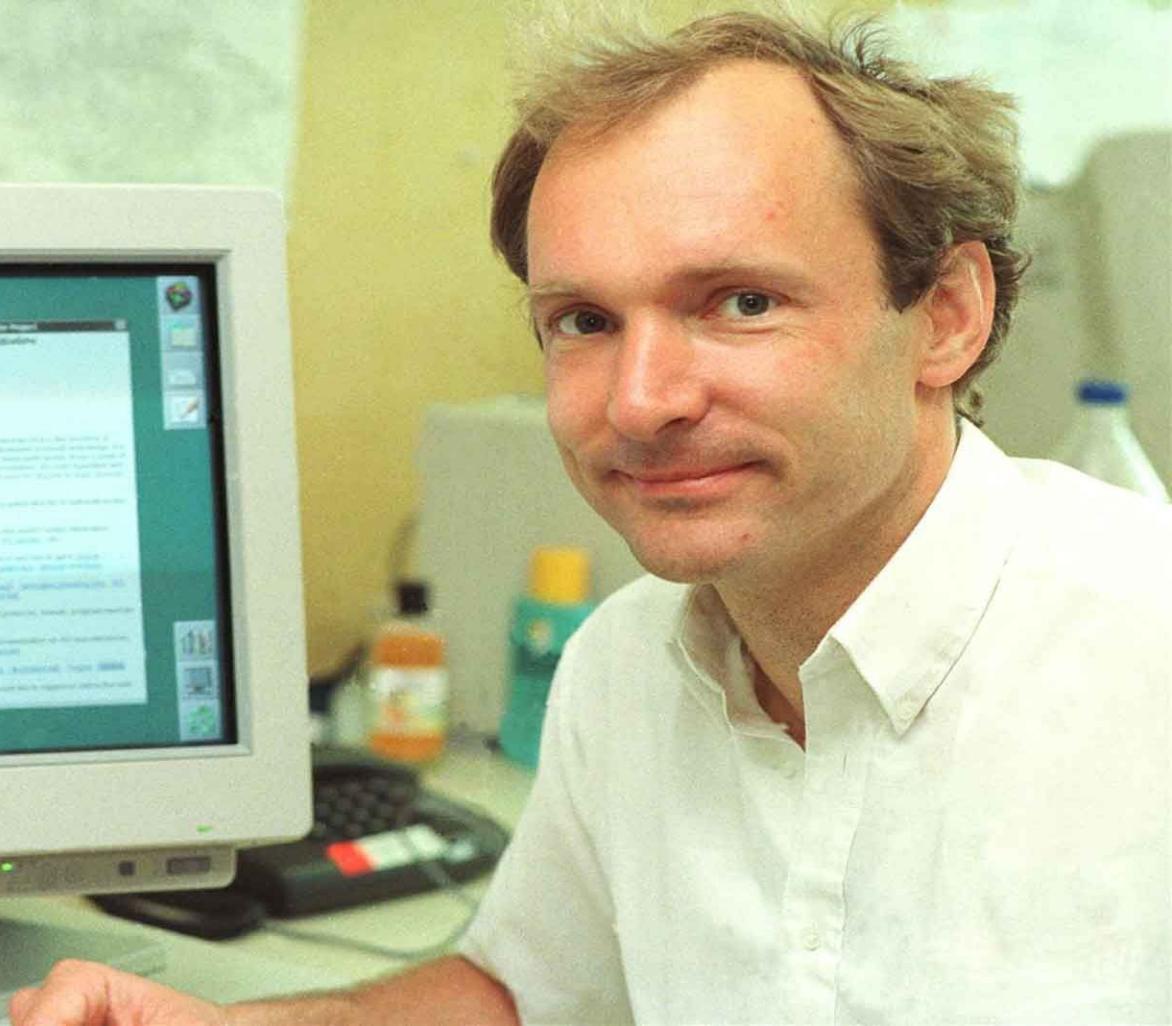
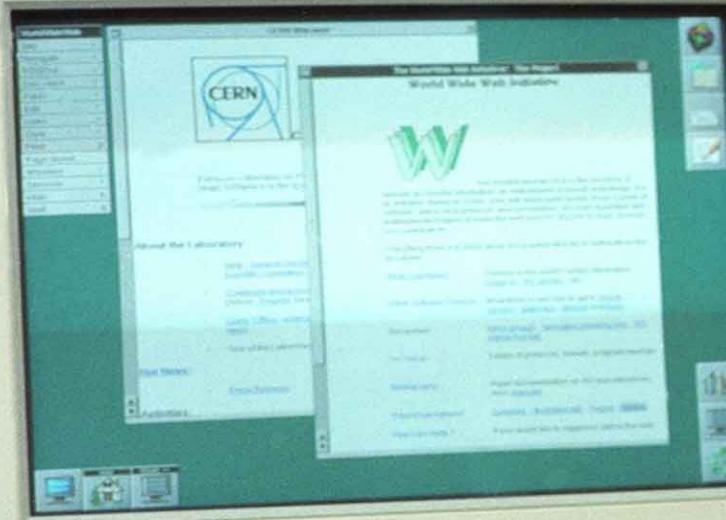
Angular Codesign

Available 1H 2019



ME

STEVE



Angular Future

Smaller, faster, easier

Fast, stable builds



Bazel

Scale

Speed

Multi-language

In the CLI (later)

Fast, stable builds



Bazel

In Angular Labs

Accepting early access

Used by Angular itself

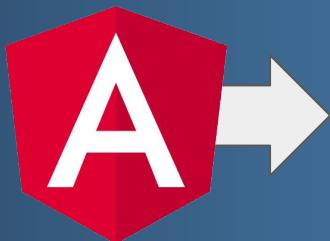


Expanding Angular Use Cases

Ivy Renderer + Angular Elements

Expanding Angular Use Cases

Applications



Websites

Industrial strength

Lightweight

Angular Universal

Optimization & lazy loading

Angular Elements

Ivy Renderer

Embed anywhere with Angular Elements



Standards-based

Self bootstrapping

Works everywhere

Available now

Ivy Renderer

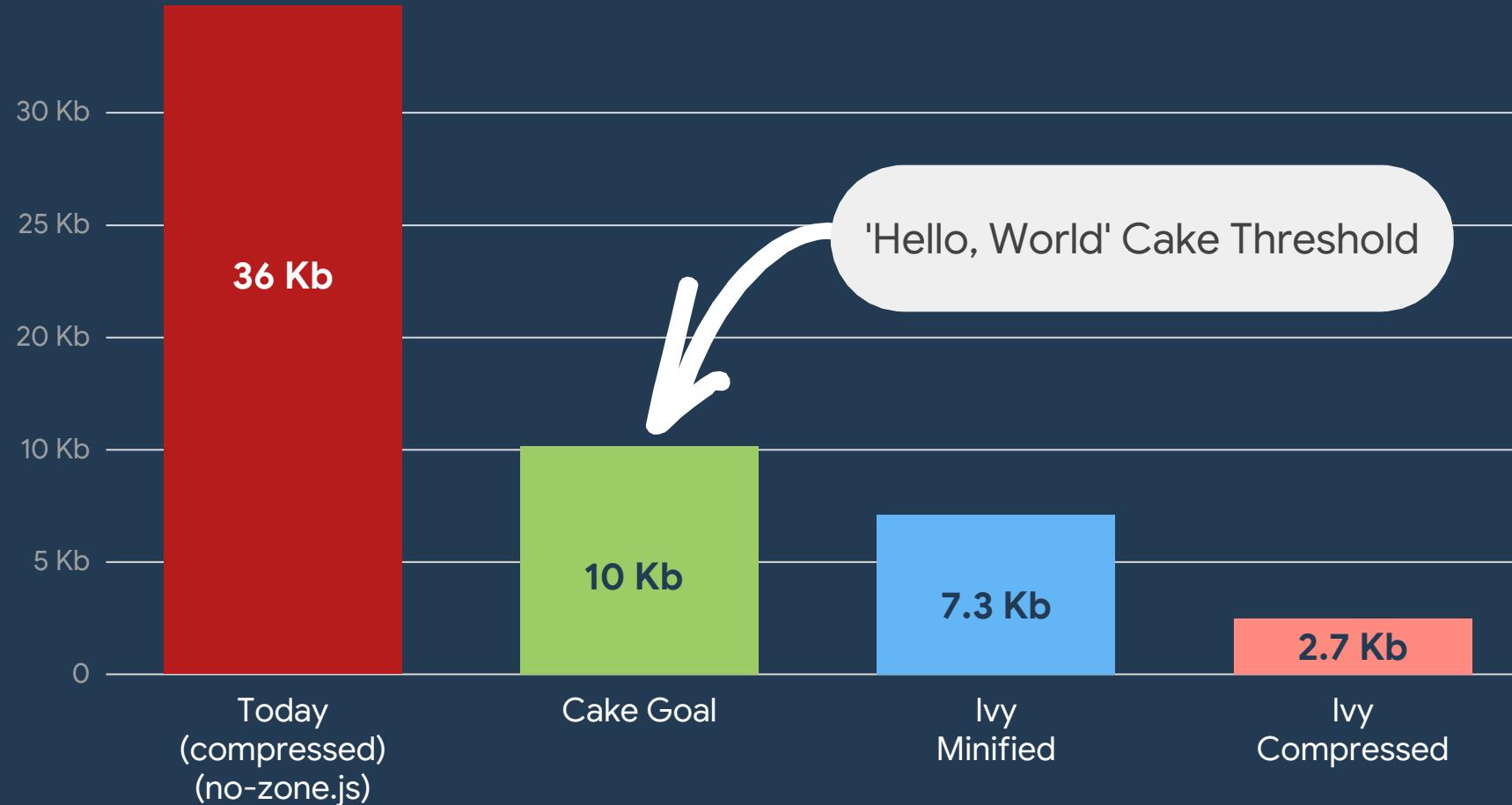


Smaller

Faster compilation

Simple debugging

Smaller



Backwards Compatible



Firebase



Google
Analytics



Google
Express



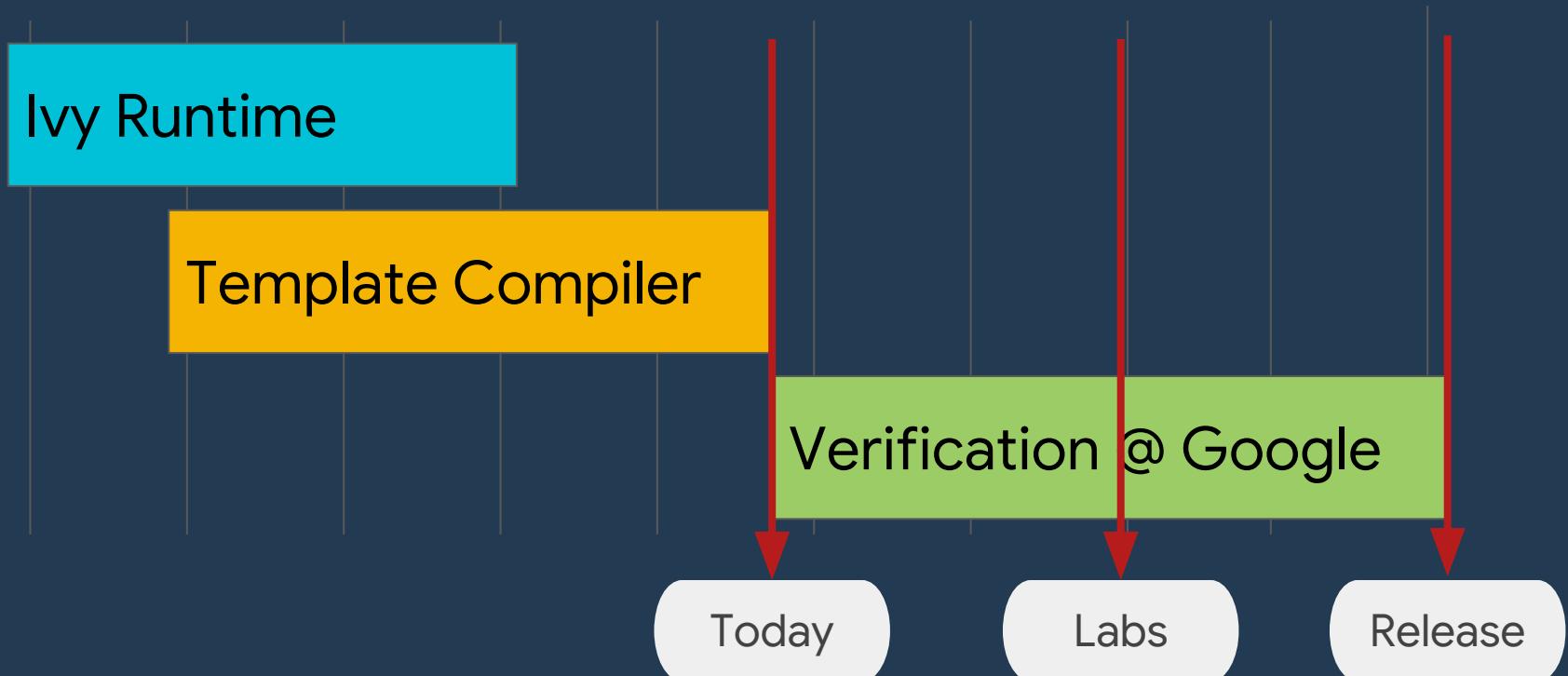
Google
Cloud
Platform

...



+600
more

Roadmap



Stay in touch



twitter.com/angular



youtube.com/angular

What about Urs?

Thanks!



[@bradlygreen](#)

An Angular Keynote slide. The title "Angular Keynote" is at the top, followed by the subtitle "ngChina, December 2018". A small circular profile picture of Brad Green is on the left, with his name and Twitter handle "Brad Green" and "@bradlygreen" to its right. The slide has a dark blue background with a white border.

<http://bit.ly/ngChina2018>