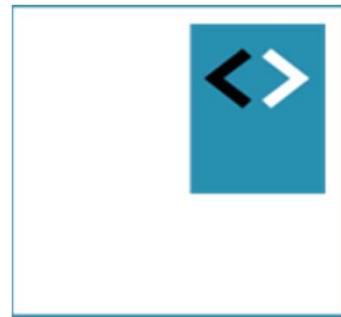




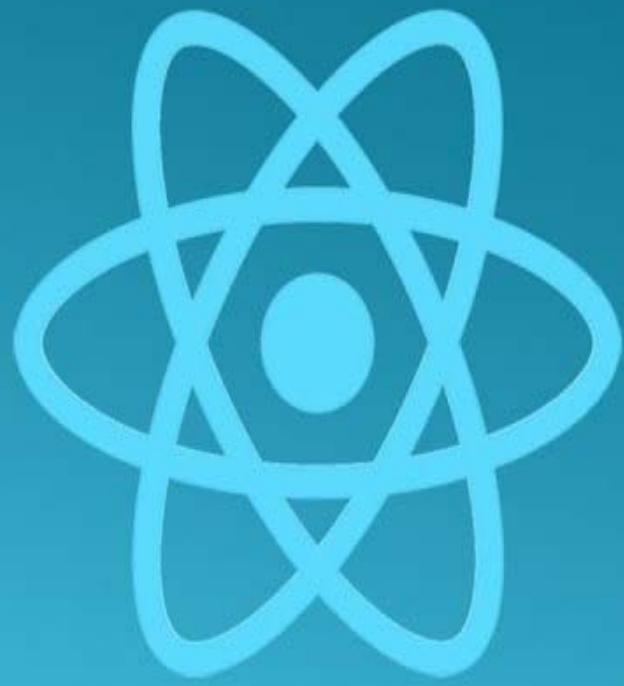
Working Spirit detachering

Working Spirit > Nieuws > Frontend Fear Meetup

Meetup – “Frontend Fear”



Peter Kassenaar –
info@kassenaar.com



A

V

Peter Kassenaar

- Trainer, author, developer – sinds 1996
- Specialty: “*Everything JavaScript*”
- JavaScript, ES6, Angular, NodeJS, TypeScript, jQuery, React, Vue, etc.

www.kassenaar.com

info@kassenaar.com

Twitter: [@PeterKassenaar](https://twitter.com/@PeterKassenaar)

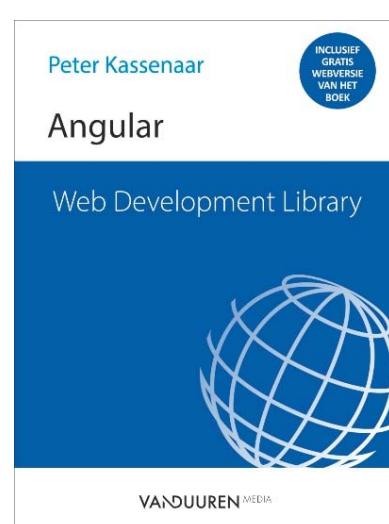
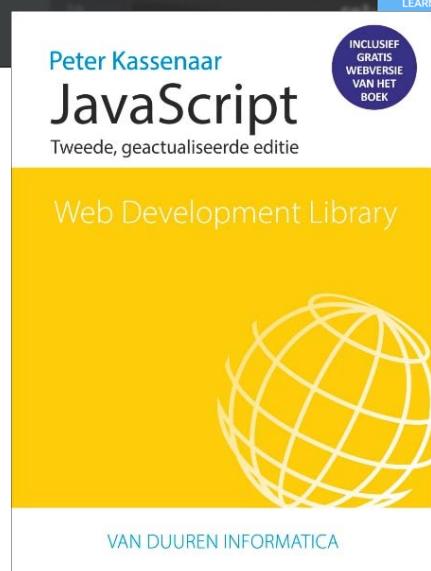


World-class Vue training in Dutch and English
Live classrooms - focused on today's developers

LEARN MORE

World-class Angular training in Dutch and English
Live classrooms - focused on today's developers

LEARN MORE SIGN UP



Peter Kassenaar
Vue.js
Web Development Library

INCLUSIEF GRATIS WEBVERSIJE VAN HET BOEK

VANDUUREN MEDIA

ReactTraining.nl Home Training Dates Information Contact

Reacttraining.nl

We teach React.

Learn more

github.com/PeterKassenaar/working-spirit

The screenshot shows a GitHub repository page. At the top, there's a dark header with the GitHub logo, a search bar, and navigation links for Pull requests, Issues, Marketplace, and Explore. To the right of the header are buttons for Watch (0), Star (0), Fork (0), and a plus sign for creating a new repository.

The main title of the repository is "PeterKassenaar / working-spirit". Below the title, there's a navigation bar with links for Code, Issues (0), Pull requests (0), Actions, Projects (0), Wiki, Security, Insights, and Settings. The "Code" link is currently selected.

The repository description is "Slides and sample applications on the workshop Frontend. Working Spirit, Deventer, March 2020". There's an "Edit" button next to it.

A "Manage topics" section follows, showing metrics: 2 commits, 1 branch, 0 packages, 0 releases, 1 contributor, and MIT license. Below these metrics are buttons for Branch: master (with a dropdown arrow), New pull request, Create new file, Upload files, Find file, and Clone or download.

The commit history table lists five commits:

File	Message	Date
sample applications	added sample applications	12 days ago
.gitignore	added sample applications	12 days ago
LICENSE	Initial commit	12 days ago
README.md	Initial commit	12 days ago

Below the commit history is a file viewer for "README.md". The content of the file is:

```
working-spirit
```

Slides and sample applications on the workshop Frontend. Working Spirit, Deventer, March 2020

The left sidebar has an "Octotree" icon and a vertical scroll bar. The bottom right corner of the page has a small cursor icon.

Goals



High level overview of frontend frameworks and the landscape

*Some practical knowledge of
Vue, React and Angular*

About you...



Tell us a little bit about yourself

How many of you do frontend stuff?

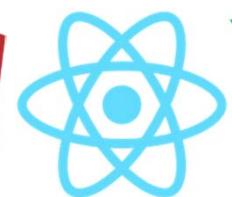
How many of you do backend stuff?

Full-stack?

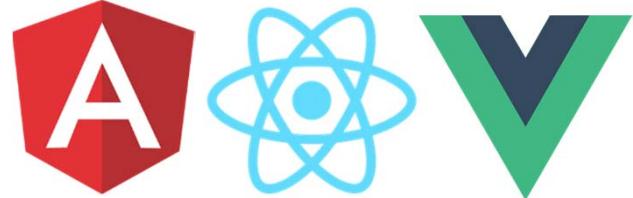
Have you worked with HTML, CSS, JavaScript,

TypeScript and/or other (web)languages?

Knowledge of front-end frameworks?



Agenda



1. “Theory” ~18:30

- Intro frameworks, the frontend Landscape,
- Similarities, differences
- Tooling: CLI's, DevTools, Style Guides

* * * * ca. 19:15 Break * * * *

2. “Practical” – ~19:30-20:15

- Live coding - building the same app, three times
- Components, data binding, props, events
- Using external data en API's
- (Build & Deploy)

3. Q & A

Questions?

Addressing the “WHY” question!

WHY, would we want to use a frontend framework.

It is all HTML, CSS and JavaScript right?

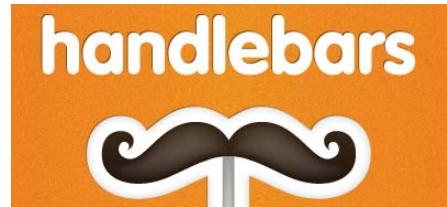
Rethorical question:

**“Do we want to go back
to the jQuery days?”**

speed, not re-inventing the wheel,
consistency,,
community,
performance,
testing....

Old school web apps

HTML + templates



Data Binding



Routing



DOM-manipulation



Mobile development

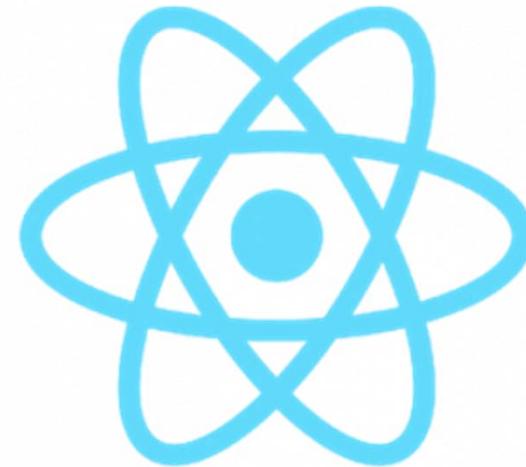


...

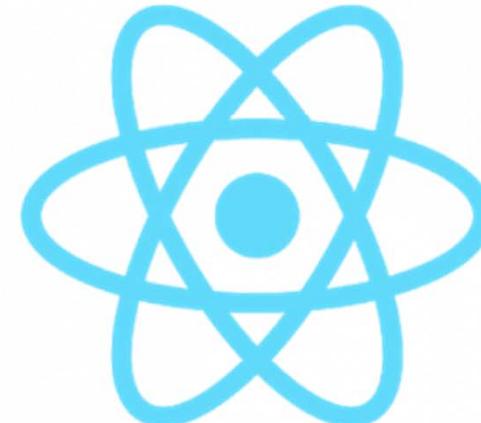
“The Frankenstein Framework”



Front-end Frameworks – the big four

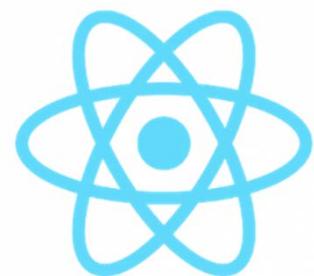


Similarities

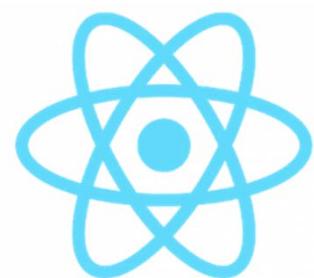


React

*All frameworks have a surprisingly
similar point of departure*



Single
Page
Applications



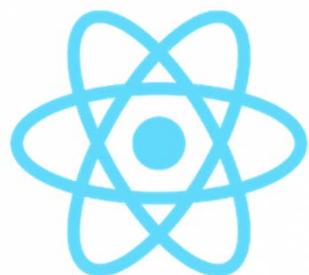
Components



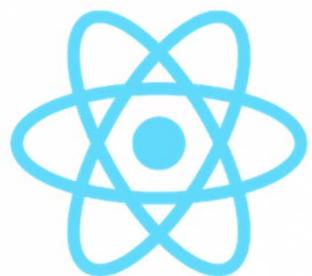
Data binding



Props



Events



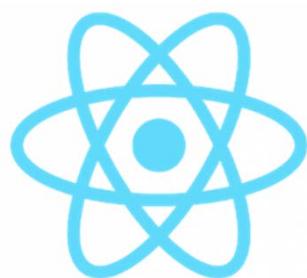
Routing,
State
management



Huge ecosystem



Huge community

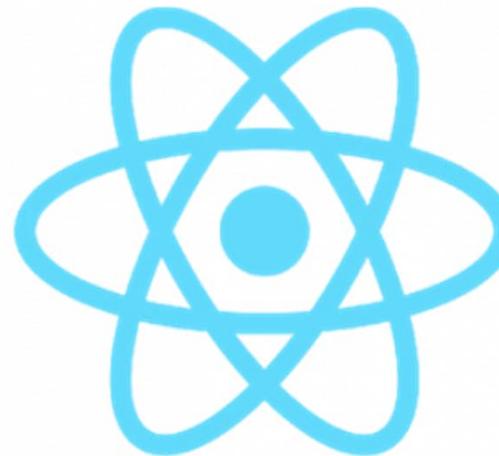


High adaptation rate

Differences (apart from syntax)



- Point of departure: *HTML template*, enhanced with framework specific tags and attributes
- Aim: *one-stop-shop* / solution



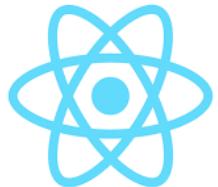
React

- Point of departure: **JavaScript**,
JavaScript, JavaScript (JSX)
- Build-all-yourself, possible **elective stress**

Frameworks vs. Libraries



- Framework (Angular, Vue)
- Concise (less code)
- Template centered
- Separate files
- Non-standard (html, elements, shadow DOM)
- Community backing (except Angular)
- React: Library
- Explicit (more coding)
- JavaScript Centered
- Single File
- Non standard (JSX, shadow DOM)
- Corporate backing





ANGULAR FEATURES DOCS RESOURCES EVENTS BLOG

Search

One framework.
Mobile & desktop.

GET STARTED

#NGCONF2020

Join us for ng-conf
April 1st-3rd, 2020

LEARN MORE

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

facebook

 React

Docs

Tutorial

Blog

Community

Search

v16.13.0

 Languages

[GitHub](#)

React

A JavaScript library for building user interfaces

[Get Started](#)

[Take the Tutorial >](#)

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

Component-Based

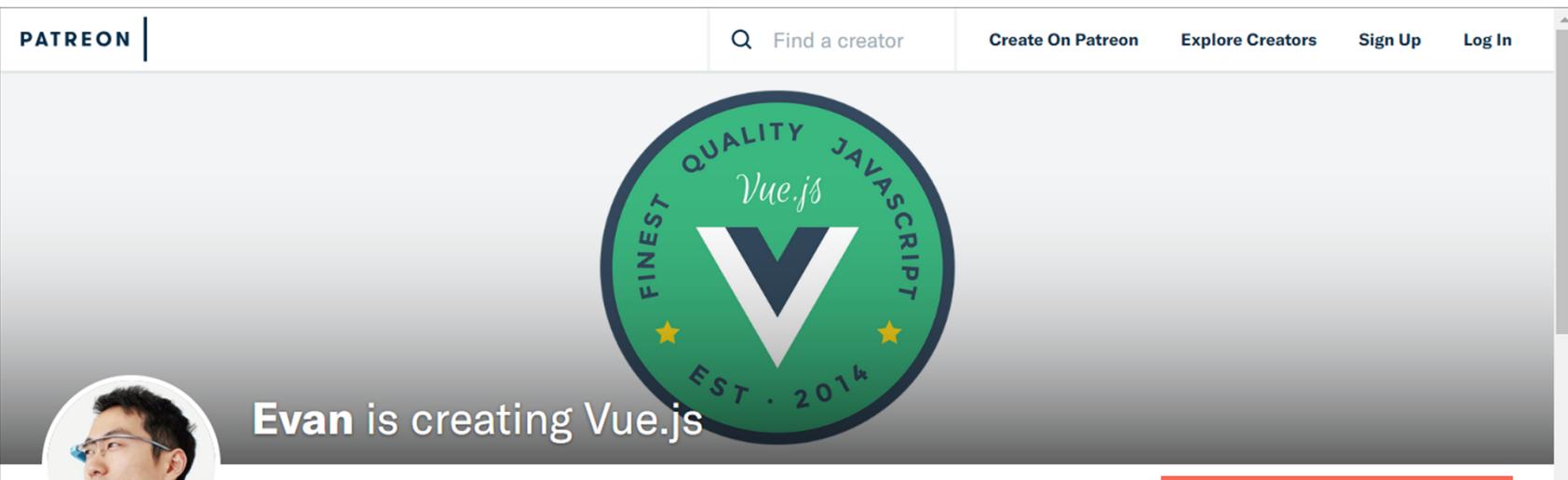
Build encapsulated components that manage their own state, then compose them to make complex UIs.

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 – Created by Facebook

Vue.js – Created by Evan You



PATREON | Find a creator | Create On Patreon | Explore Creators | Sign Up | Log In

Evan is creating Vue.js

Overview Posts BECOME A PATRON

227 patrons

\$16,646 per month

+ FOLLOW ▲ SHARE

SHARE TWEET

GOALS View all < >

Backer
\$10 or more per month
Your name will be put in backers.md in the Vue.js repository.

JOIN \$10 TIER

Generous Backer
\$50 or more per month
Your name will be put at the top of backers.md in the Vue.js repository.

If you need invoices for tax purposes, simply message me on Patreon with your company information after pledging and I can setup automatic invoicing (for Gold Sponsors and up only).

If you are not comfortable with recurring pledges, I also accept one-time donations via PayPal or crypto currencies :)

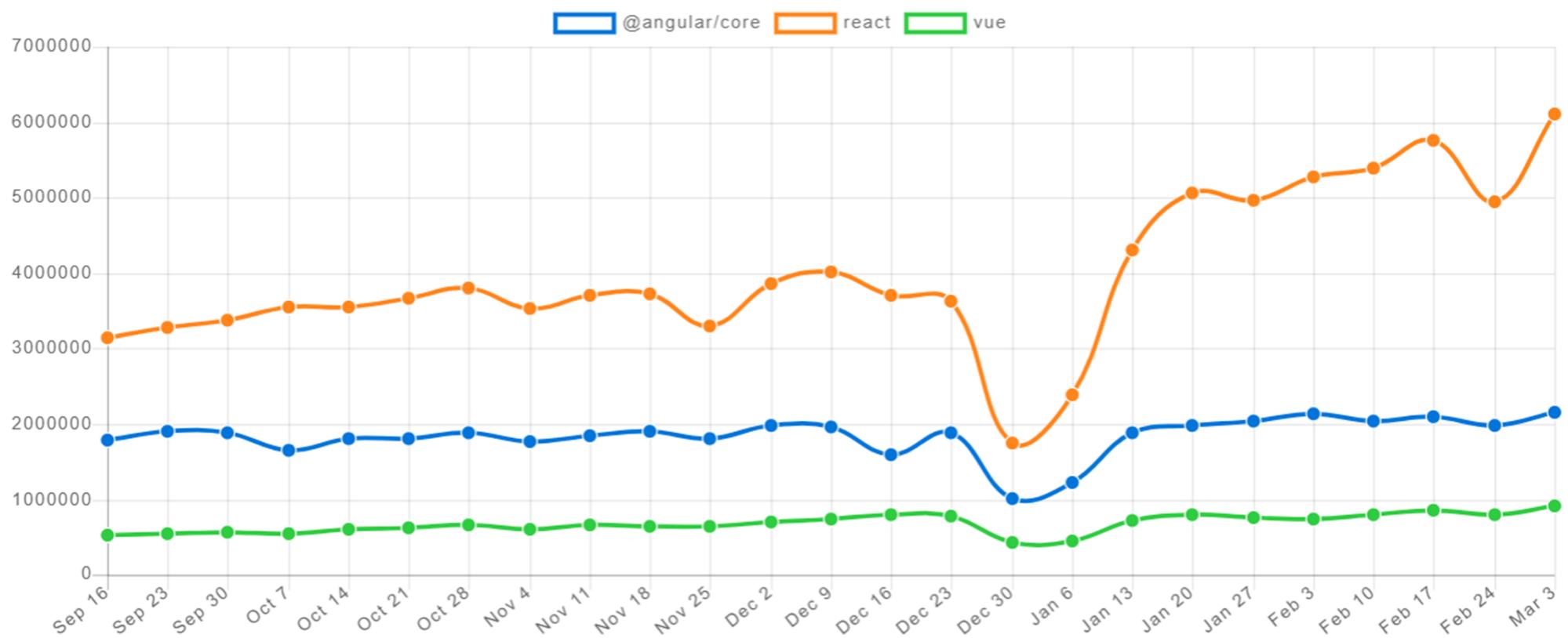
Vue.js is a front-end framework that is simple to use yet powerful in nature.

The project focuses on making some of the best ideas in web UI development (components, declarative UI, hot-reloading, time-travel

No backing from company with deep pockets – all crowd funded

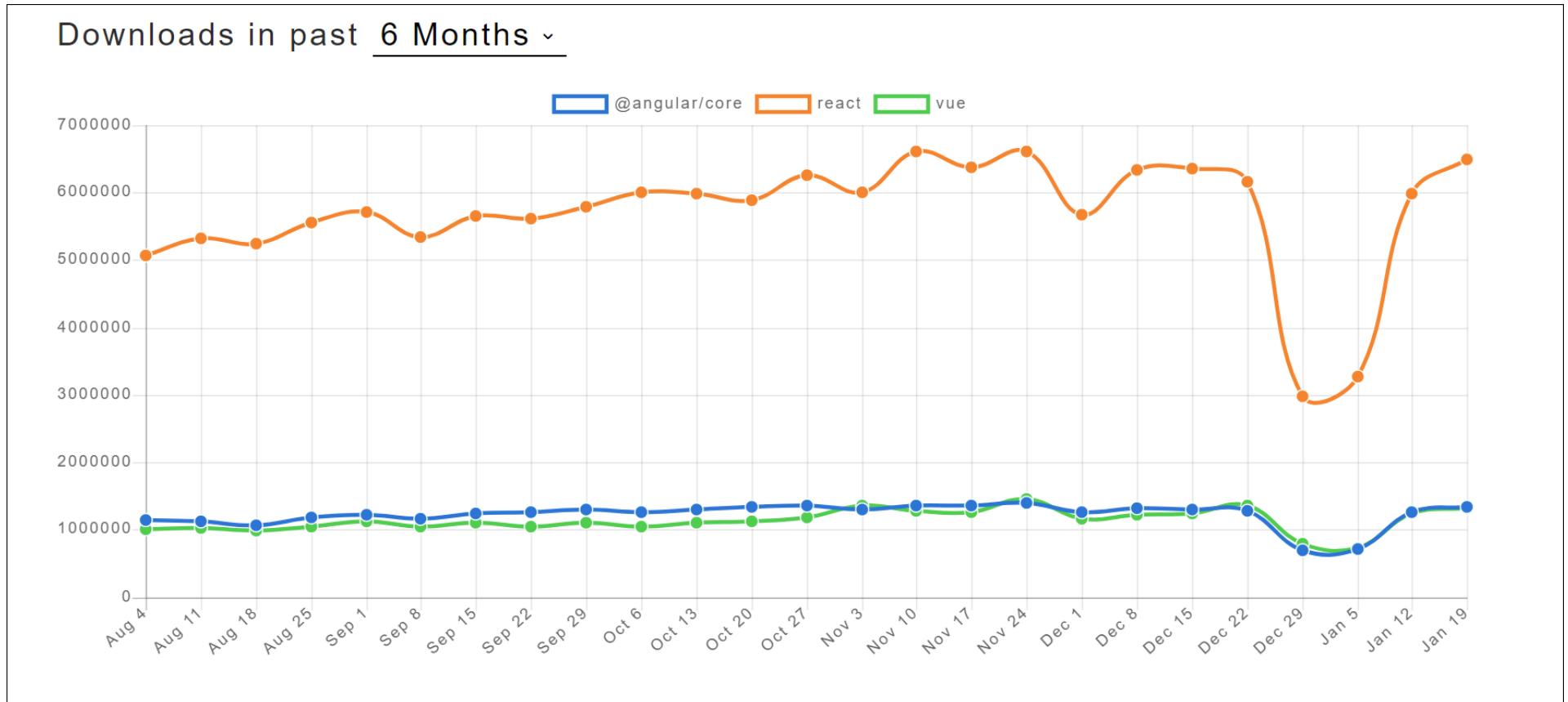
A 2019 comparison

Downloads in past 6 Months ▾



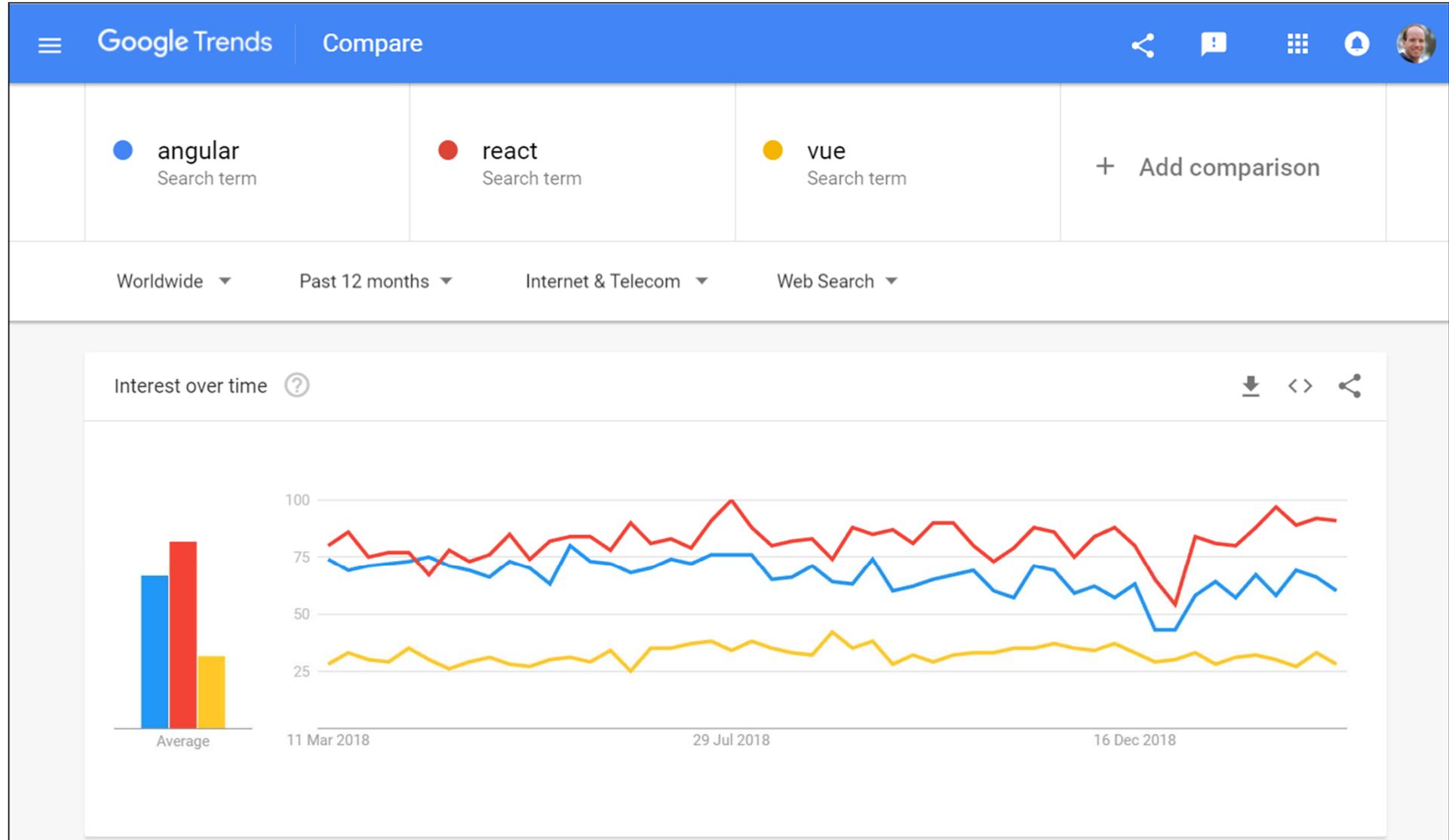
<https://www.npmtrends.com/@angular/core-vs-react-vs-vue>

A 2020 comparison



[@angular/core-vs-react-vs-vue](https://www.npmtr...)

Google Trends



<https://trends.google.com/trends/explore?cat=13&q=angular,react,vue>

Giststar rankings

Gitstar Ranking Users Organizations Repositories GitHub username Search Sign in with GitHub

Repositories Ranking

1 2 3 ... >

(Δ) 1. freeCodeCamp/freeCodeCamp	★ 298396
▼ 2. vuejs/vue	★ 129161
(B) 3. twbs/bootstrap	★ 128833
(F) 4. facebook/react	★ 124937
↑TF 5. tensorflow/tensorflow	★ 123450
Ebook 6. EbookFoundation/free-progra...	★ 118765
OWL 7. sindresorhus/awesome	★ 99459
DB 8. d3/d3	★ 83265
▲ 51. zeit/next.js	★ 35904
⌚ 52. moment/moment	★ 35598
📦 53. nodejs/node-v0.x-archive	★ 35577
Ionic 54. ionic-team/ionic	★ 35555
🐸 55. typicode/json-server	★ 35389
👤 56. mrdoob/three.js	★ 35013
🦀 57. rust-lang/rust	★ 34749
📡 58. shadowsocks/shadowsocks-win...	★ 34747

<https://gitstar-ranking.com/repositories>



“Vue is used by Alibaba, Baidu, Nintendo, GitLab, L’Oréal and many others”

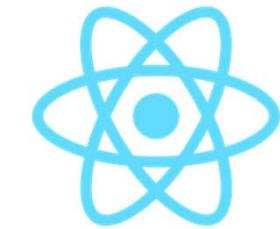
The screenshot shows the homepage of madewithvuejs.com. At the top, there's a navigation bar with 'Collection' and 'Blog' tabs, a 'CATEGORIES' dropdown, and a 'SUBMIT A PROJECT' button. The main feature is a large circular icon containing the Vue.js logo, with the text 'made with vue.js' below it. A prominent banner at the bottom left says 'CYBER MONDAY @ Creative Tim: 30 Templates for 90% off!' with a 'GET IT' button. To the right, there's a card for the 'My Nintendo' project, which is described as a 'Reward System for Nintendo accounts'. It includes a preview image of the My Nintendo website, a 'Create account' button, a 'Sign in' button, and some stats: '#Websites #WebApps', '2.810', and a 'Vue FilePond' section. The footer of the card also mentions 'by Armin & Melanie'.

<https://madewithvuejs.com/>



“Angular is used by Delta Airlines, Google, Mercedes Benz and more”

A screenshot of the Delta Airlines website's search interface. At the top, there is a navigation bar with links for Alerts & Advisories, Coronavirus Travel Updates, View All, DELTA logo, BOOK, CHECK-IN, MY TRIPS, FLIGHT STATUS, Travel Info, SkyMiles, More, SIGN UP, LOG IN, a notification bell icon with a red '3', and a search icon. Below the navigation bar, the search form is displayed. It shows a departure city of "AMS" (Amsterdam, Netherlands) and a placeholder "To Your Destination". The search type is set to "Round Trip" and the travel mode is "Depart — Return". The number of passengers is "1 Passenger". A large red button with a white arrow points to the right, likely the search or continue button. Below the search form, there is a promotional banner featuring a smiling flight attendant in uniform interacting with a passenger. The banner text reads "PRIORITIZE YOUR PEACE OF MIND" and "Early boarding, faster deplaning, dedicated bin space, and more legroom in Delta Comfort+®.".



“React is used by many Fortune 500 companies, including Airbnb, BBC, Instagram and Dropbox”

The screenshot shows the Dropbox web interface at [dropbox.com/home](https://www.dropbox.com/home). The left sidebar includes links for Home, Files, Paper, Transfer (Beta), and Showcase. The main area displays a 'Suggested for you' section with four folder icons: 'kassenaar' (with 'slides'), 'Oefeningen' (with 'cursus'), 'JavaScript 101' (with 'Fronteers'), and another 'kassenaar' folder (with 'slides'). Below this is a 'Starred' section with a note about starred items. A recent file, '10- React Fundamentals - introduction.pptx', is listed under 'Recent'. On the right side, there's a 'Create new file' button and options for 'Upload files', 'Upload folder', 'New shared folder', and 'Create Paper doc'. A 'Search' bar and user profile icons are also present.

Home

Files

Paper

Transfer Beta

Showcase

Improve your security with an account checkup. [Get started](#)

Try Dropbox Business

Search

Home

Suggested for you ⓘ

Hide

Create new file

Upload files

Upload folder

New shared folder

Create Paper doc

Starred

Hide

When you star items, they'll show up here for easy access. [Learn more](#)

Recent ▾

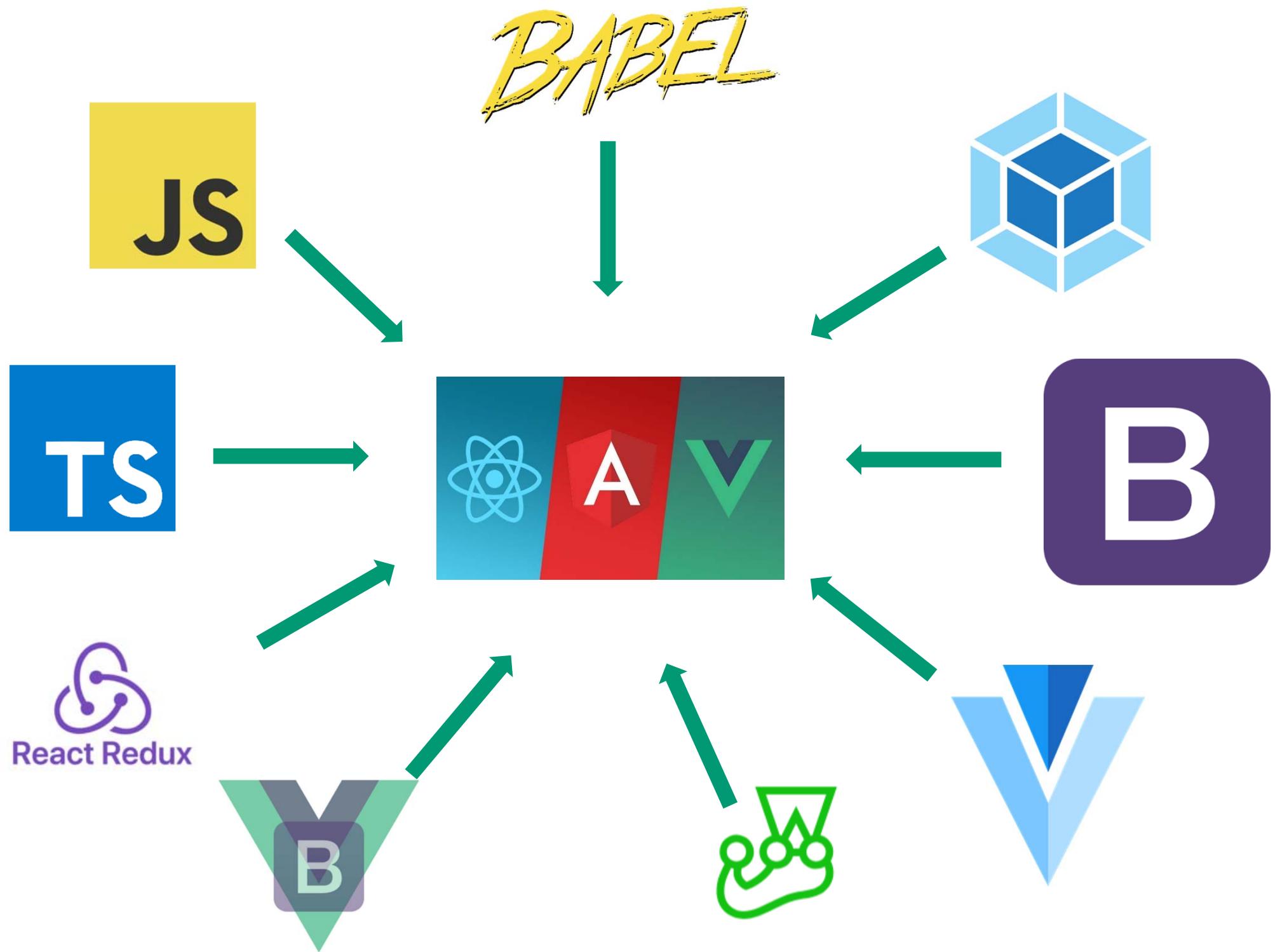
10- React Fundamentals - introduction.pptx
Edited 19 mins ago · slides

...



The Frontend ecosystem

Frameworks are not isolated/not living on an island

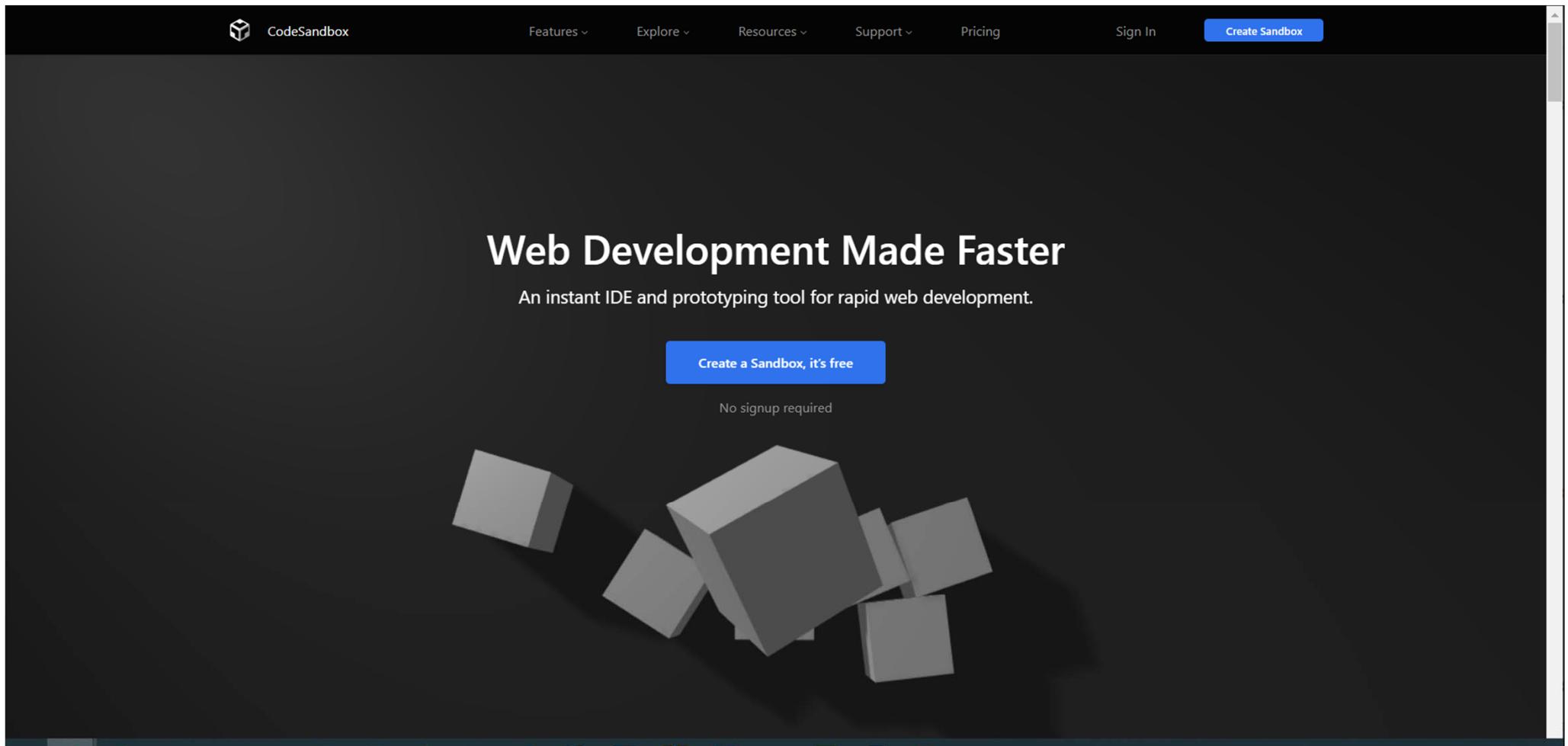


Additional services, options, etc.

The image displays four separate web application interfaces side-by-side:

- Amplify Framework**: An orange-themed interface featuring the text "The foundation for your cloud-powered mobile & web apps". It includes a "GET STARTED" button and icons for Apple, Android, and the web.
- Cloudinary**: A dark-themed interface with a logo and navigation links for "About", "Blog", "Contact", "SOLUTIONS", "PRICING", and "CLOUDINARY".
- Vue Mastery**: A light blue-themed interface with the text "The ultimate guide for Vue". It features a "Courses" and "Pricing" menu item.
- CodeSandbox**: A dark-themed interface with the text "The online code editor for Web". It includes a "OPEN EDITOR" button and a "EXPLORE EXAMPLES" link.

Codesandbox.io



<https://codesandbox.io/>

Online prototyping and development tool – develop in the cloud, no installation necessary

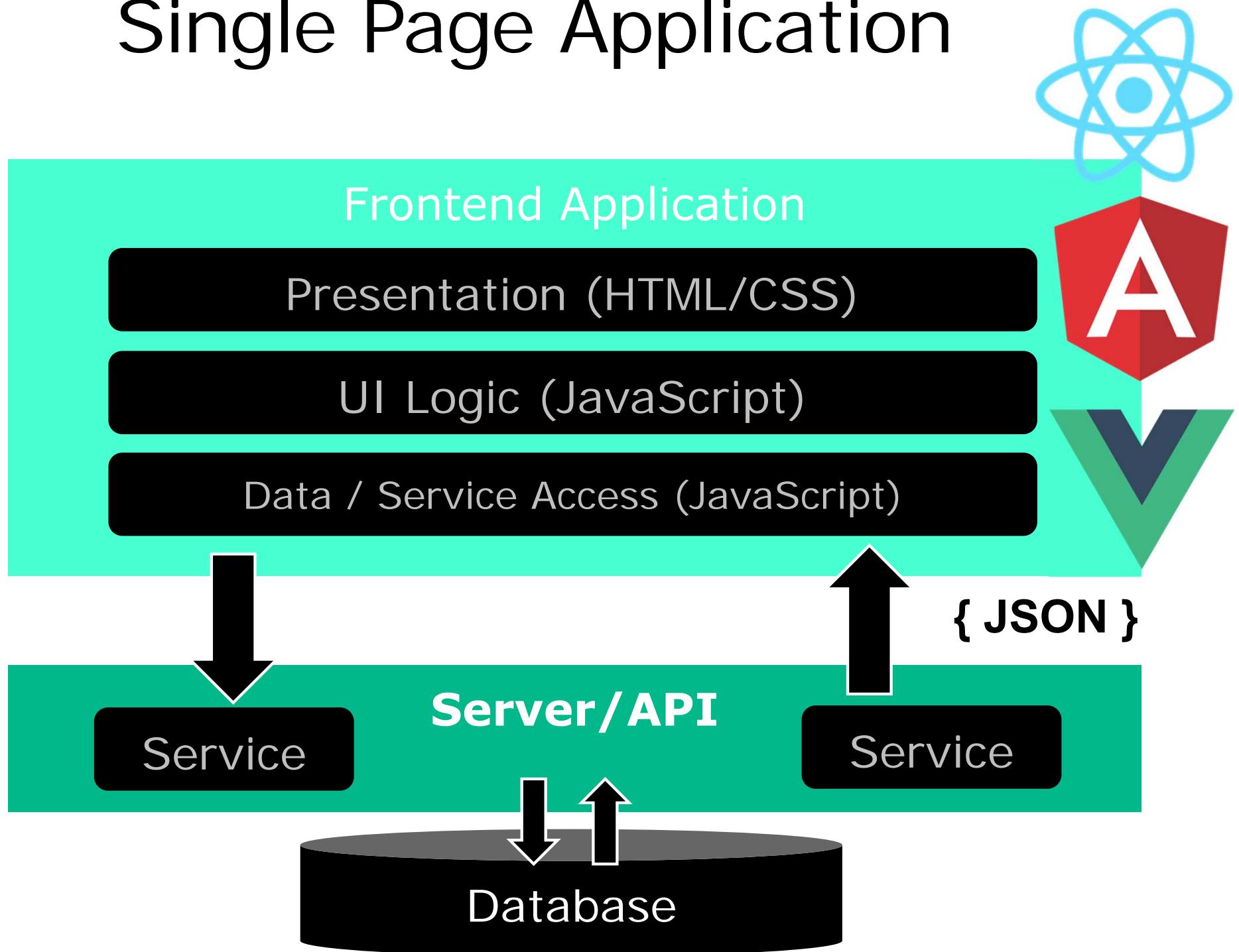
And more....



Framework application structure

Getting a conceptual understanding of the SPA
architecture

Single Page Application



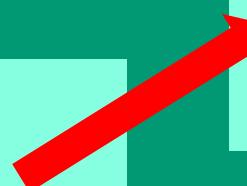
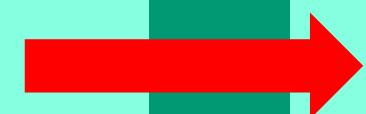
Application

App

Child 1

Child 2

Child 3



Application w/ routing

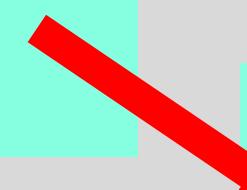
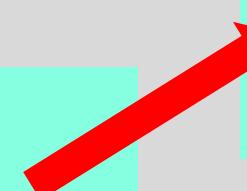
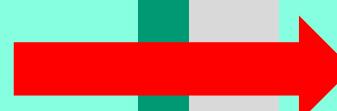
App

Router View

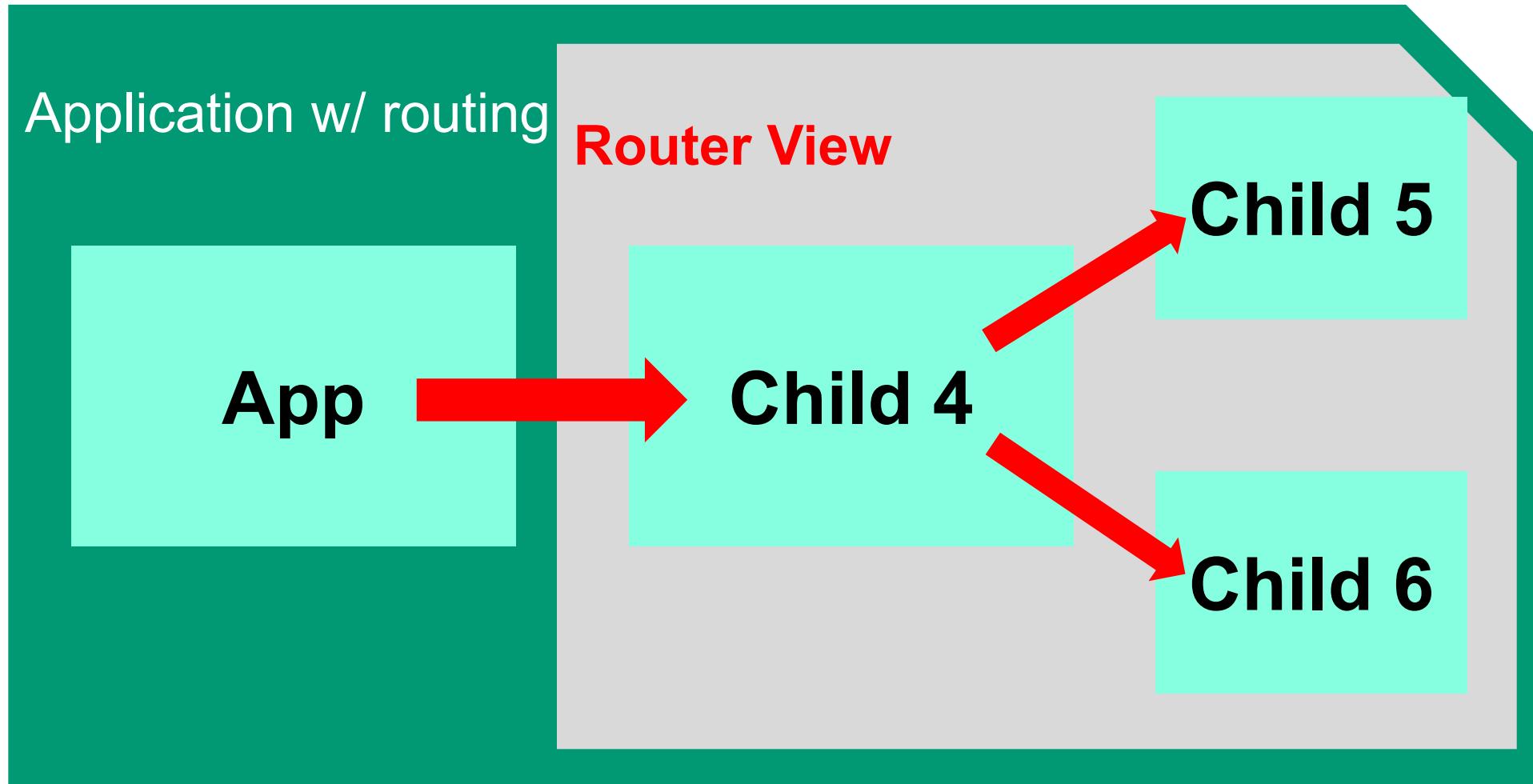
Child 1

Child 2

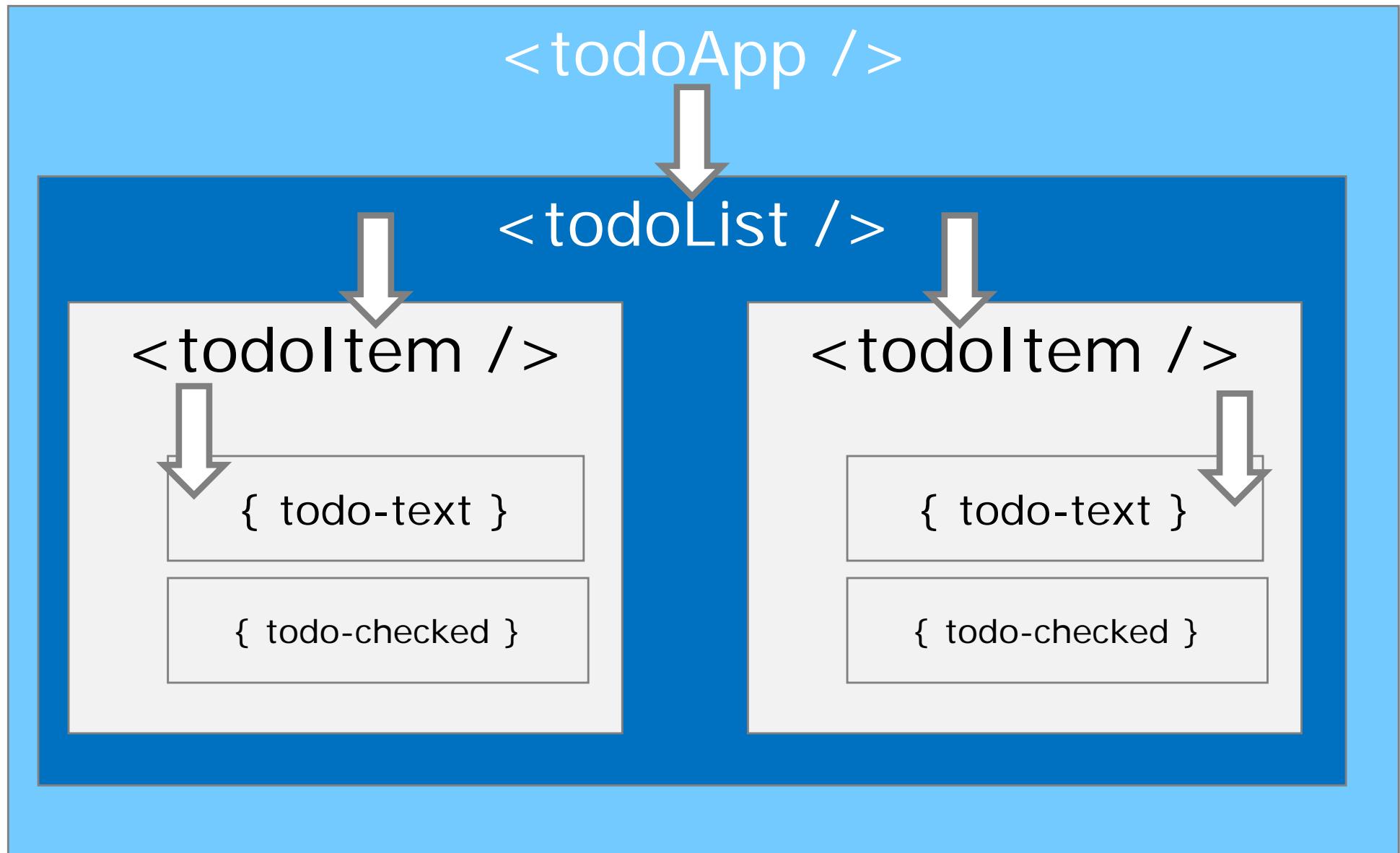
Child 3



As the URL changes, content gets updated

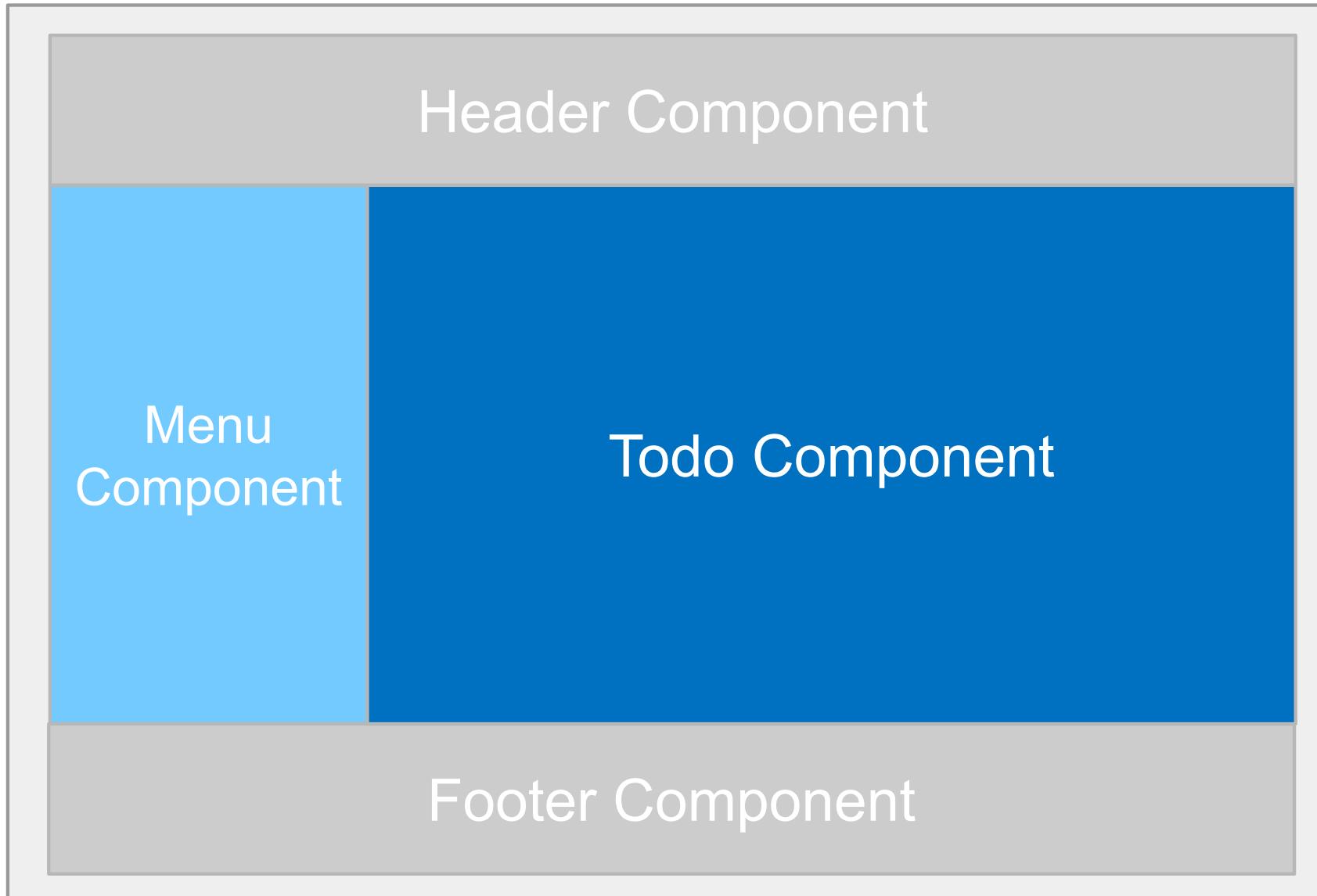


SPA & component structure



*“A Single Page
Application is a tree
of components”*

Components – visual representation





Tooling

Install tooling and create your first app



git --fast-version-control



Search entire site...

About

Documentation

Downloads

GUI Clients

Logos

Community

The entire [Pro Git book](#) written by Scott Chacon and Ben Straub is available to [read online for free](#). Dead tree versions are available on [Amazon.com](#).

Downloads



Mac OS X



Windows



Linux/Unix

Older releases are available and the [Git source repository](#) is on GitHub.

GUI Clients

Git comes with built-in GUI tools (`git-gui`, `gitk`), but there are several third-party tools for users looking for a platform-specific experience.



Logos

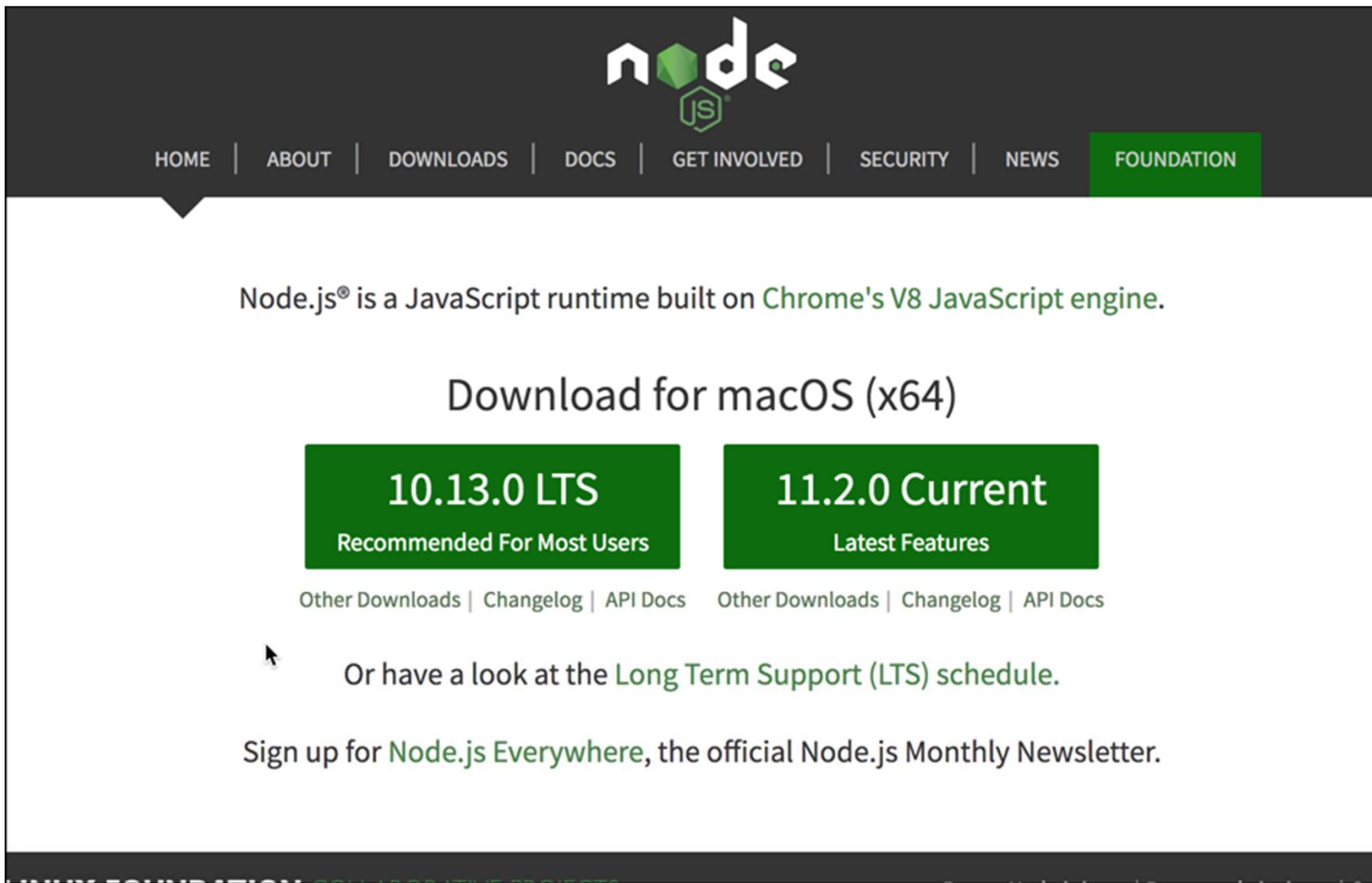
Various Git logos in PNG (bitmap) and EPS (vector) formats are available for use in online and print projects.



PeterKassenaar

```
Last login: Mon Nov 26 13:28:59 on ttys011
[MacBook-Pro:~ PeterKassenaar]$ git --version
git version 2.17.2 (Apple Git-112)
[MacBook-Pro:~ PeterKassenaar$]
```

<https://git-scm.com/downloads>



The screenshot shows the official Node.js website homepage. At the top is a dark navigation bar with the Node.js logo and links for HOME, ABOUT, DOWNLOADS, DOCS, GET INVOLVED, SECURITY, NEWS, and FOUNDATION. The FOUNDATION link is highlighted with a green background. Below the navigation is a large white area containing text and download buttons. The text reads: "Node.js® is a JavaScript runtime built on Chrome's V8 JavaScript engine." Below this is a section titled "Download for macOS (x64)" with two prominent green buttons: one for "10.13.0 LTS" (Recommended For Most Users) and another for "11.2.0 Current" (Latest Features). At the bottom of the page, there's a call to action: "Or have a look at the Long Term Support (LTS) schedule." and a link to sign up for the "Node.js Everywhere" newsletter.

Node.js

HOME | ABOUT | DOWNLOADS | DOCS | GET INVOLVED | SECURITY | NEWS | FOUNDATION

Node.js® is a JavaScript runtime built on Chrome's V8 JavaScript engine.

Download for macOS (x64)

10.13.0 LTS
Recommended For Most Users

11.2.0 Current
Latest Features

Other Downloads | Changelog | API Docs Other Downloads | Changelog | API Docs

Or have a look at the [Long Term Support \(LTS\) schedule](#).

Sign up for [Node.js Everywhere](#), the official Node.js Monthly Newsletter.

<https://nodejs.org/en/>

Framework CLI's

- Scaffold new projects
- Add routing, add components (sometimes)
- Add State management and so on
- Answer prompts when creating a new project

```
npm install -g
```

```
@[framework]/cli
```

cli.vuejs.org

Vue CLI 3 

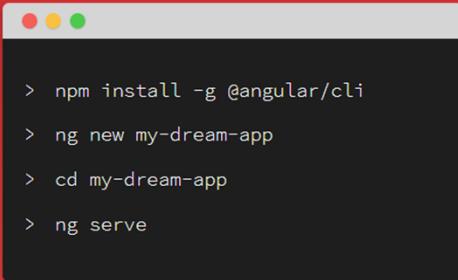
Guide Config Reference Plugin Dev Guide ▾ Plugins ▾ Changelog Languages ▾ GitHub ▾



Vue CLI 3

🛠 Standard Tooling for Vue.js Development

[Get Started →](#)



Angular CLI

A command line interface for Angular

[GET STARTED](#)

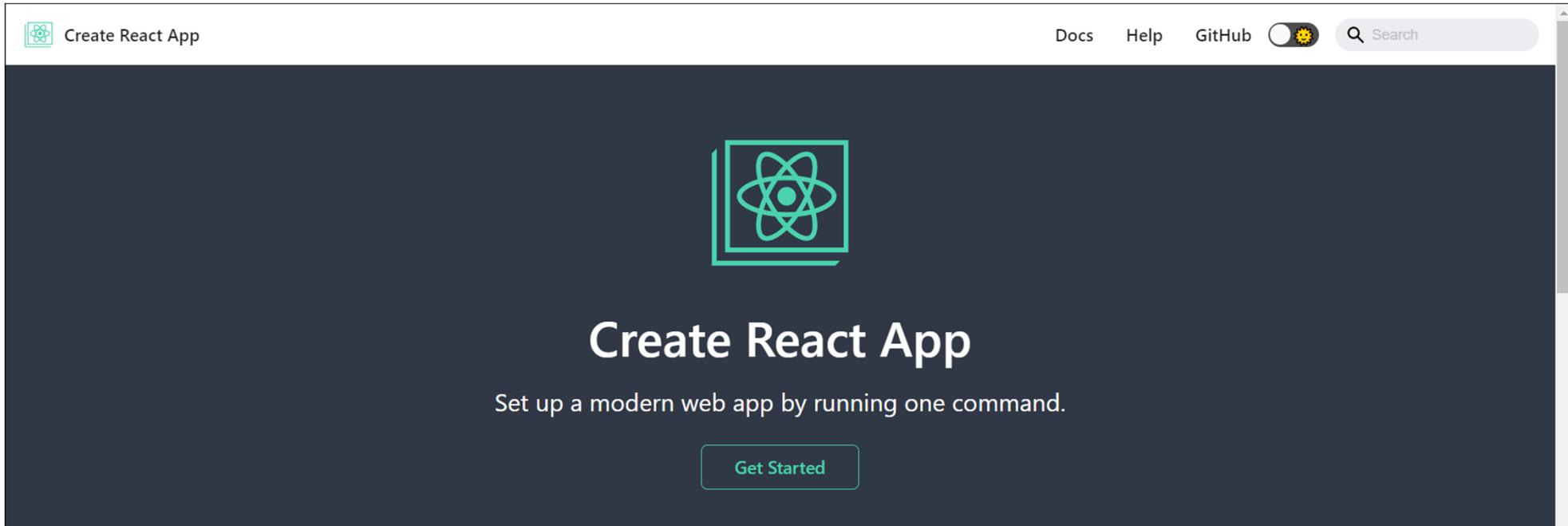
ng new

The Angular CLI makes it easy to create an application that already works, right out of the box. It already follows our best practices!

ng generate

Generate components, routes, services and pipes with a simple command. The CLI will also create simple test shells for all of these.

create-react-app.dev



The screenshot shows the official website for Create React App at create-react-app.dev. The page has a dark background with a large teal atom icon in the center. Below the icon, the text "Create React App" is displayed in a large, white, sans-serif font. Underneath that, a subtitle reads "Set up a modern web app by running one command." A prominent green "Get Started" button is centered below the subtitle. At the top of the page, there is a navigation bar with links for "Docs", "Help", "GitHub", and a search bar. The main content area is divided into three sections: "Less to Learn", "Only One Dependency", and "No Lock-In", each with a brief description.

Create React App

Set up a modern web app by running one command.

[Get Started](#)

Less to Learn

You don't need to learn and configure many build tools. Instant reloads help you focus on development. When it's time to deploy, your bundles are optimized automatically.

Only One Dependency

Your app only needs one build dependency. We test Create React App to make sure that all of its underlying pieces work together seamlessly – no complicated version mismatches.

No Lock-In

Under the hood, we use webpack, Babel, ESLint, and other amazing projects to power your app. If you ever want an advanced configuration, you can "eject" from Create React App and edit their config files directly.

Break. . .





Let's create an app

Building the same app, in 3 different frameworks

What are we going to build...

The screenshot shows a web application titled "Working Spirit detachering" with a logo consisting of three blue interlocking S-shaped lines. The page header includes the URL "Working Spirit > Nieuws > Frontend Fear Meetup".

Vacation Picker

I want to visit:

1 United Search Clear

Results

	United States Minor Outlying Islands
	Tanzania, United Republic of 2
	United Arab Emirates
	United Kingdom of Great Britain and Northern Ireland
	United States of America
	Mexico

3

United Kingdom of Great Britain and Northern Ireland

United Kingdom of Great Britain and Northern Ireland
capital: London
population: 65110000

How are we going to build it?



You decide....



Q & A

Checkpoint – what have we learned?

There are **3** major frameworks at this moment

Frameworks share the same **similarities**

Frameworks differ in **vision** and syntax

All frameworks have a **huge ecosystem**

All frameworks provide **tooling**

We can build the **same app** with all frameworks

Which one suits you best? **You decide!**

github.com/PeterKassenaar/working-spirit

If you liked it, endorse

The screenshot shows a LinkedIn profile page with a red oval highlighting the 'Featured Skills & Endorsements' section. This section lists three skills with endorsements:

- Teaching · 3 endorsements (Youri Pattynama and 2 connections)
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- Angular · 2 endorsements (Momen El Kamri and 1 connection)

Below this section, there is a link to "See 26 more skills".

At the top of the page, there is a navigation bar with links for Home, My Network, Jobs, Messaging, Notifications, Me, Work, and Try Premium for Free.

<https://www.linkedin.com/in/peterkassenaar/>

Peter Kassenaar

- Trainer, author, developer – sinds 1996
- Specialty: “*Everything JavaScript*”
- JavaScript, ES6, Angular, Node.js, TypeScript, jQuery, React, Vue, etc.

www.kassenaar.com

info@kassenaar.com

@PeterKassenaar

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