



illionx

Global Knowledge.®

Module – Comparison of Frontend Frameworks

Peter Kassenaar –
info@kassenaar.com

WORLDWIDE LOCATIONS

BELGIUM CANADA COLOMBIA DENMARK EGYPT FRANCE IRELAND JAPAN KOREA MALAYSIA MEXICO NETHERLANDS NORWAY QATAR
SAUDI ARABIA SINGAPORE SPAIN SWEDEN UNITED ARAB EMIRATES UNITED KINGDOM UNITED STATES OF AMERICA

Contents of this module

- Introduction, “*why frontend frameworks?*”
- Similarities
- Differences
- Ecosystem & ‘meta’-frameworks
- Current popularity
- General structure of frontend applications
- Tooling
- Summary

The background of the image is a photograph of Earth at night, taken from space. It shows the curvature of the planet against a dark sky. City lights are visible as glowing yellow and white spots, primarily concentrated in coastal and urban areas. Cloud formations appear as white and greyish-blue streaks across the dark blue oceans and continents.

Internet

World wide web

Albert Heijn: boodschappen doen [x](#)

ah.nl

Inloggen [▼](#) Producten Bonus Recepten Winkels Acties Klantenservice Meer [▼](#)

Zoeken naar.. Online bestellen [▼](#) 0

Koopzegels in de winkel of bij je online bestelling?

Meld je aan met de AH app >

Tot 6% rente

Heineken Original Pilsener 5.98
2=1

Dr. Oetker Ristorante pizza salami 2.25
3 VOOR 5.00

AH Hummus 2.00
2 VOOR 3.39

Page Origineel schoon toiletpapier 11.79
VOOR 11.79

Vanish Oxi Advance Multi Power

Ontdek nu de nieuwe formule! >

MULTI POWER

Vlekverwijdering zelfs in KUD WATER

Hartstik KLEUREN

Vervrijdt sterke GEUREN

Maak elk uur kans op een bon voor de horeca

Bekijk de actie >

#HELP DE HORECA

Like button icon

Albert Heijn logo

Page number 4

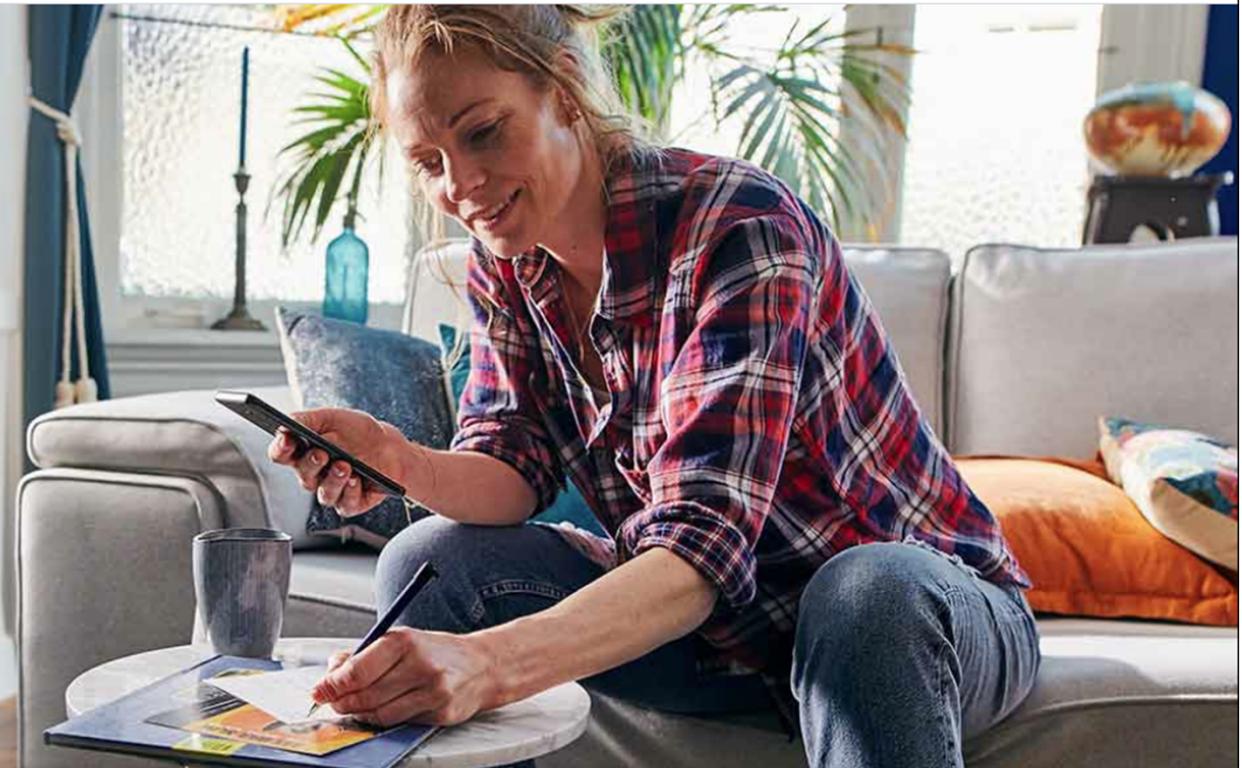
[Versturen](#)[Ontvangen](#)[Zakelijke Oplossingen](#)[Webshop](#)[Service & Contact](#)

Peter ▾



Geen postzegel bij de hand?

Gebruik de postzegelcode!

[Lees meer](#)[Volg je pakket](#)[Postcode zoeken](#)[Versturen](#)[PostNL-punt](#)

Barcode of niet-thuiscode

Barcode (3S of KG)

Land van de ontvanger

Nederland

Postcode

1234AB[Zoeken](#)

Nu tot 5 maanden korting

+ 12 maanden gratis Ziggo Sport Totaal of Movies & Series XL

Vergelijk pakketten



Producten

Alles-in-



>

Internet &

>



Service

Storingen

>

Wifi verbeteren

>



Veelgezocht

Aanbiedingen

>

Gigabit

>

Goal

*High level overview of
frontend frameworks and
the landscape*

Prerequisites

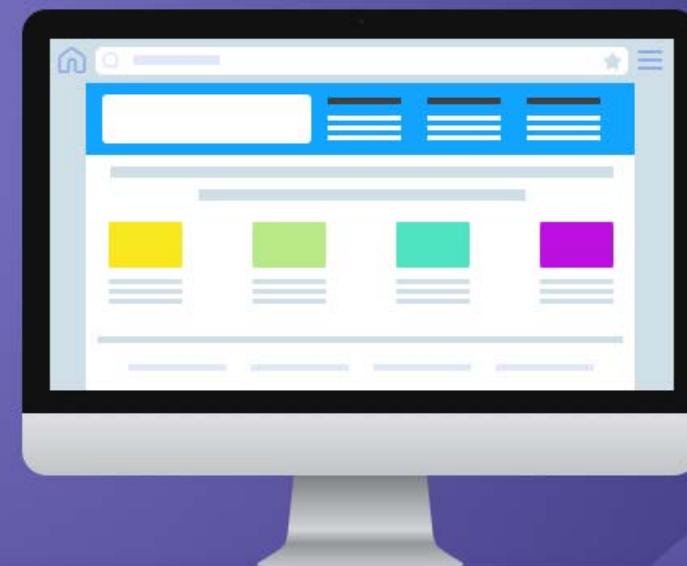
*Some knowledge of
HTML, CSS, JavaScript
websites in general
Developing & debugging in a
browser*

Focus on web apps / -sites here

WEB APPLICATION

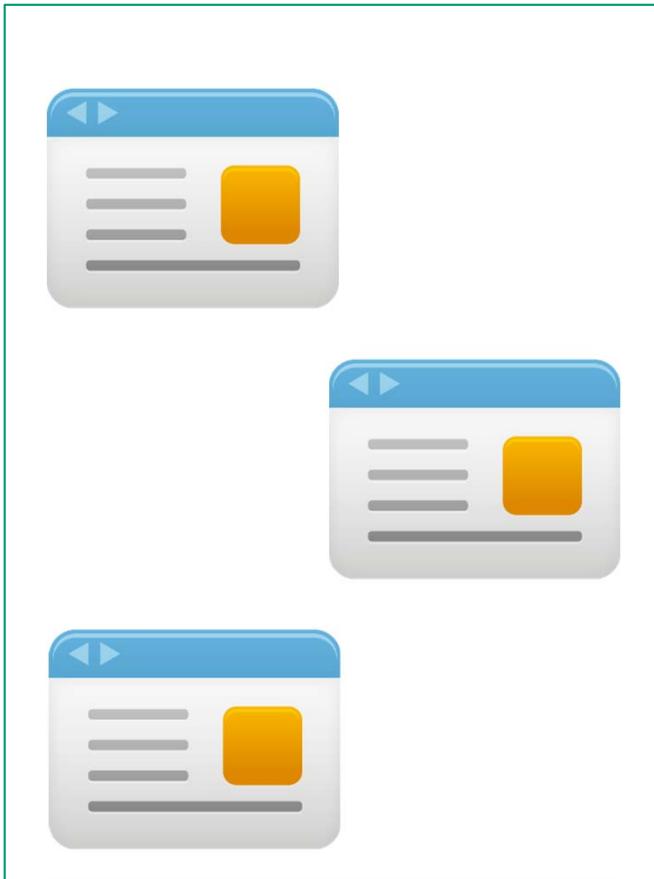


WEBSITE



VS

Previous generation (ca. 1995 - 2012)



Separate (enhanced) web pages

Index.html

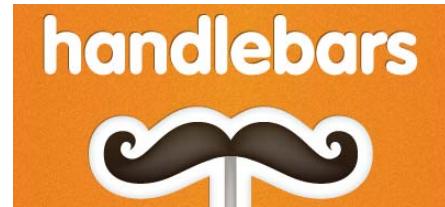
Contact.html

Products.html

...

Old school web apps

HTML + templates



Data Binding



Routing



DOM-manipulation



Mobile development



...

“The Frankenstein Framework”



Current generation (ca. 2012 - ...)



Integrated, **framework**
approach:

Templating

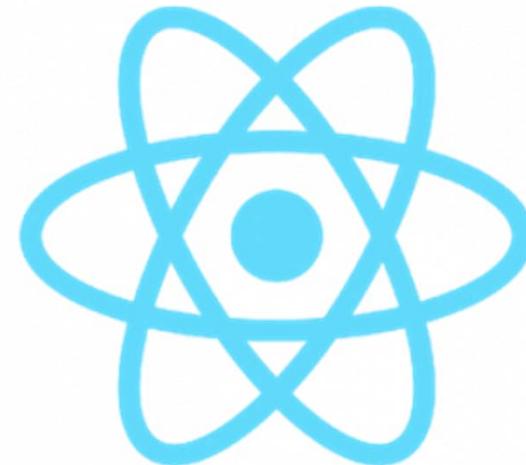
Scripting

Data binding

Routing

...

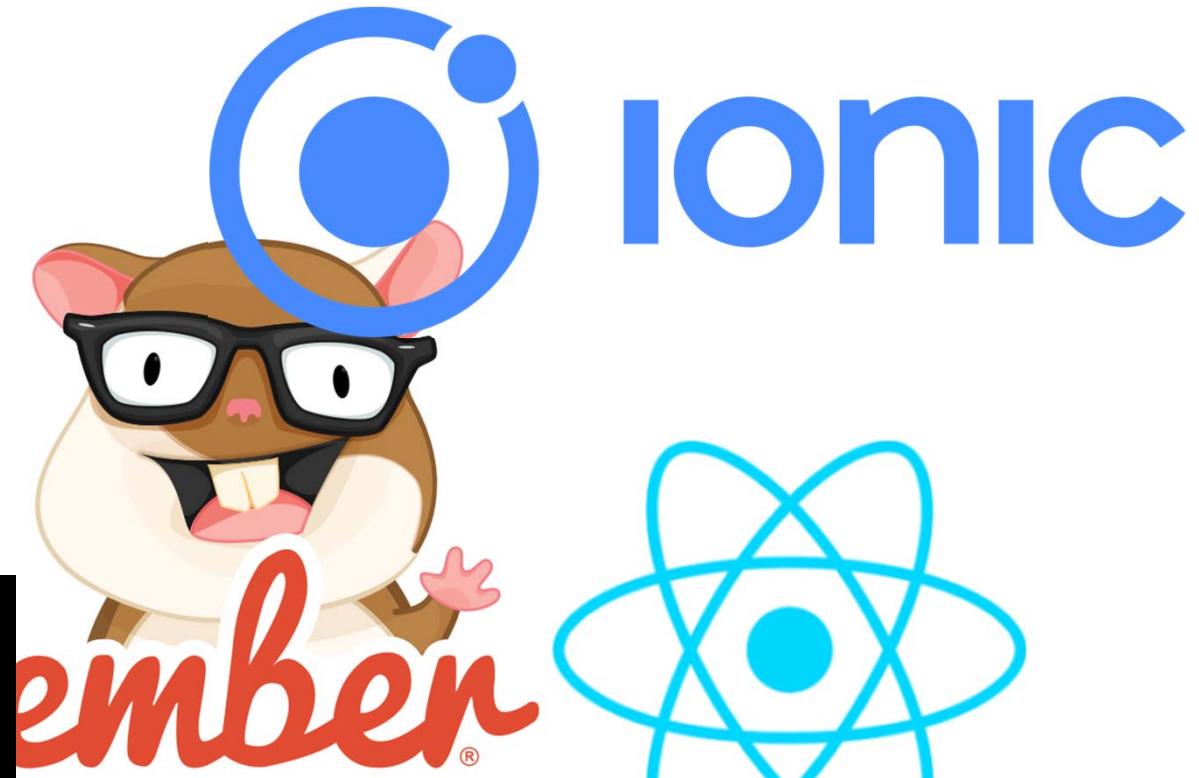
Front-end Frameworks – the big four



But wait... there's more

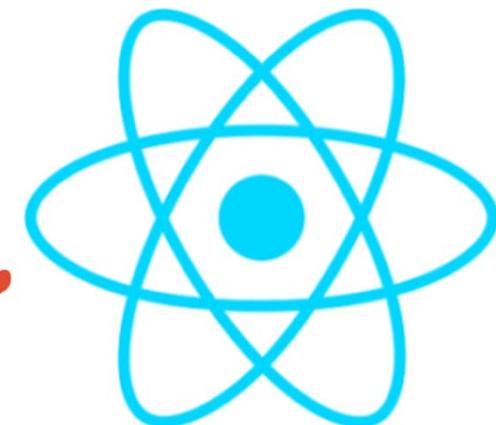


SVELTE



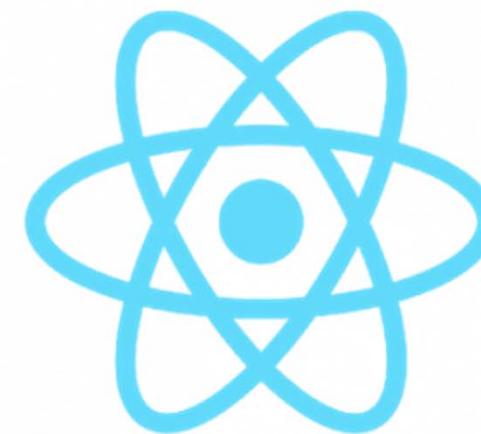
WEBCOMPONENTS

ionic



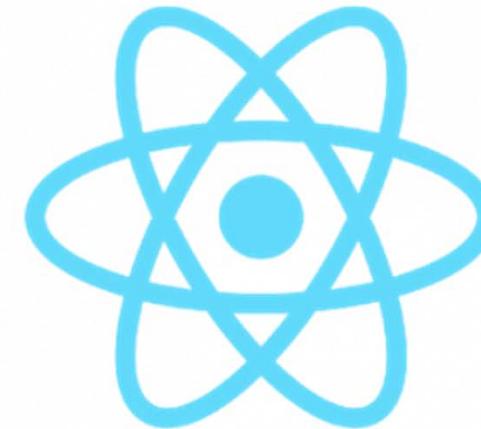
React Native

Focus



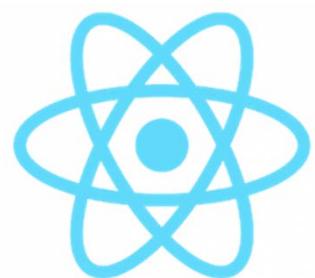
React

Similarities



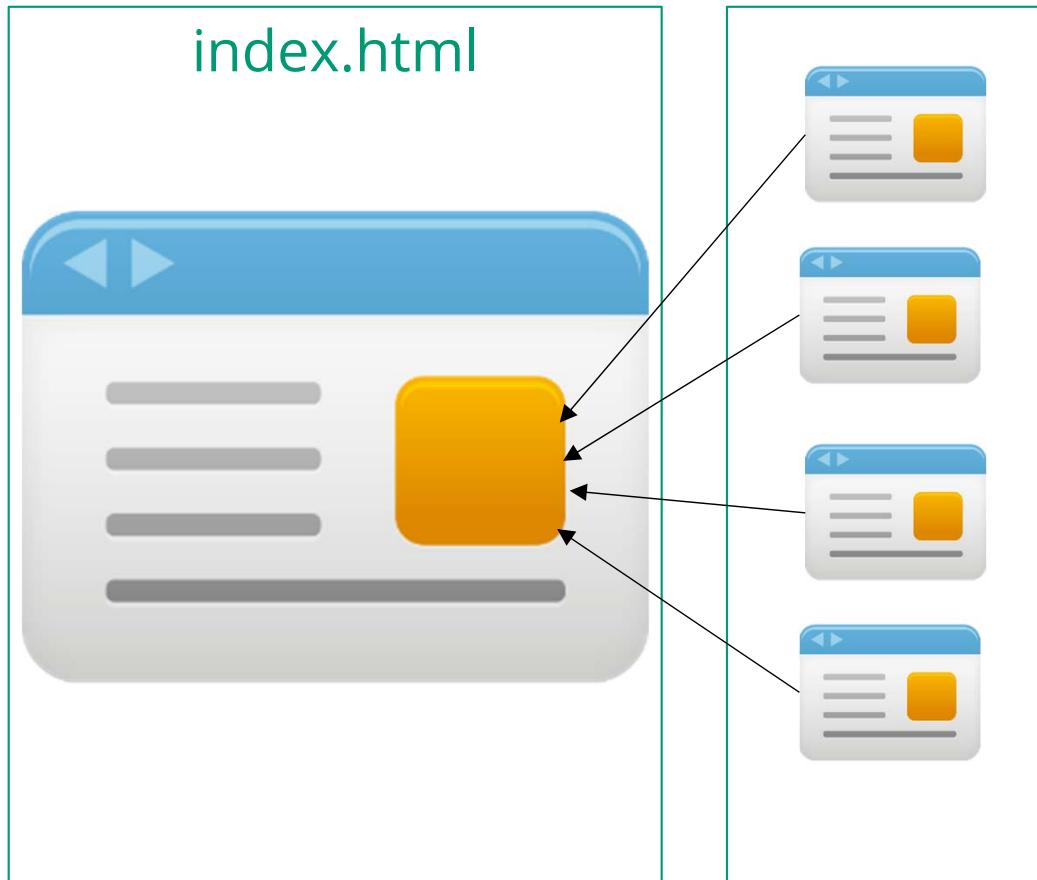
React

*All frameworks have a **surprisingly similar** point of departure*



1. Single Page Applications

Single Page Applications

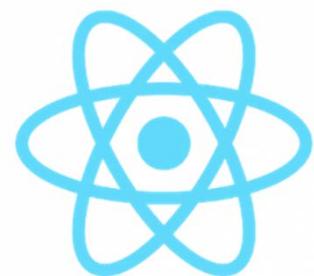


Single `index.html`

Framework is responsible
for loading components,
data, routing, etc...

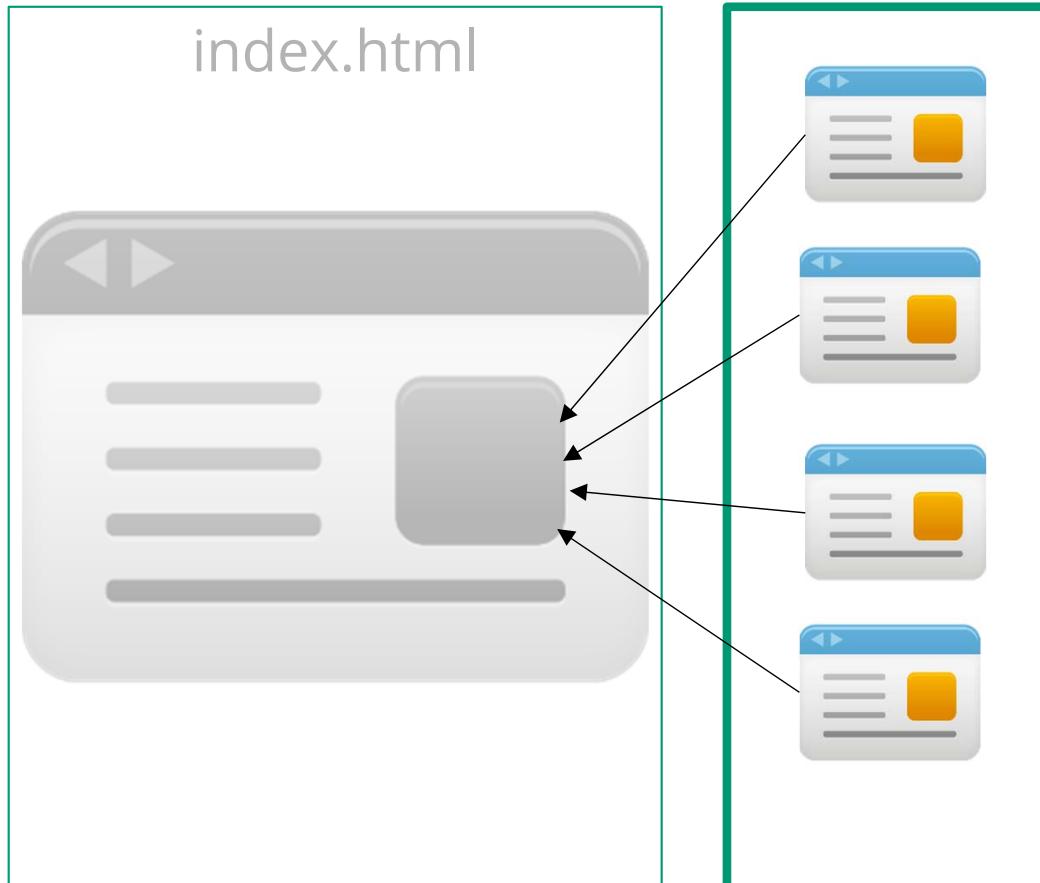
Projected inside `index.html`

In reality: not a “single
page”, but dozens of files!



2. Components

Single Page Applications



Single index.html

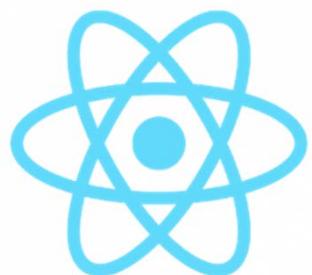
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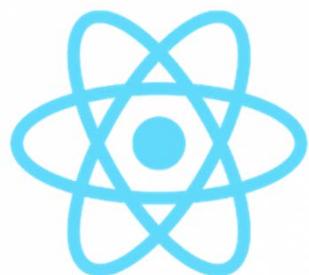
Projected inside index.html

In reality: not a “single
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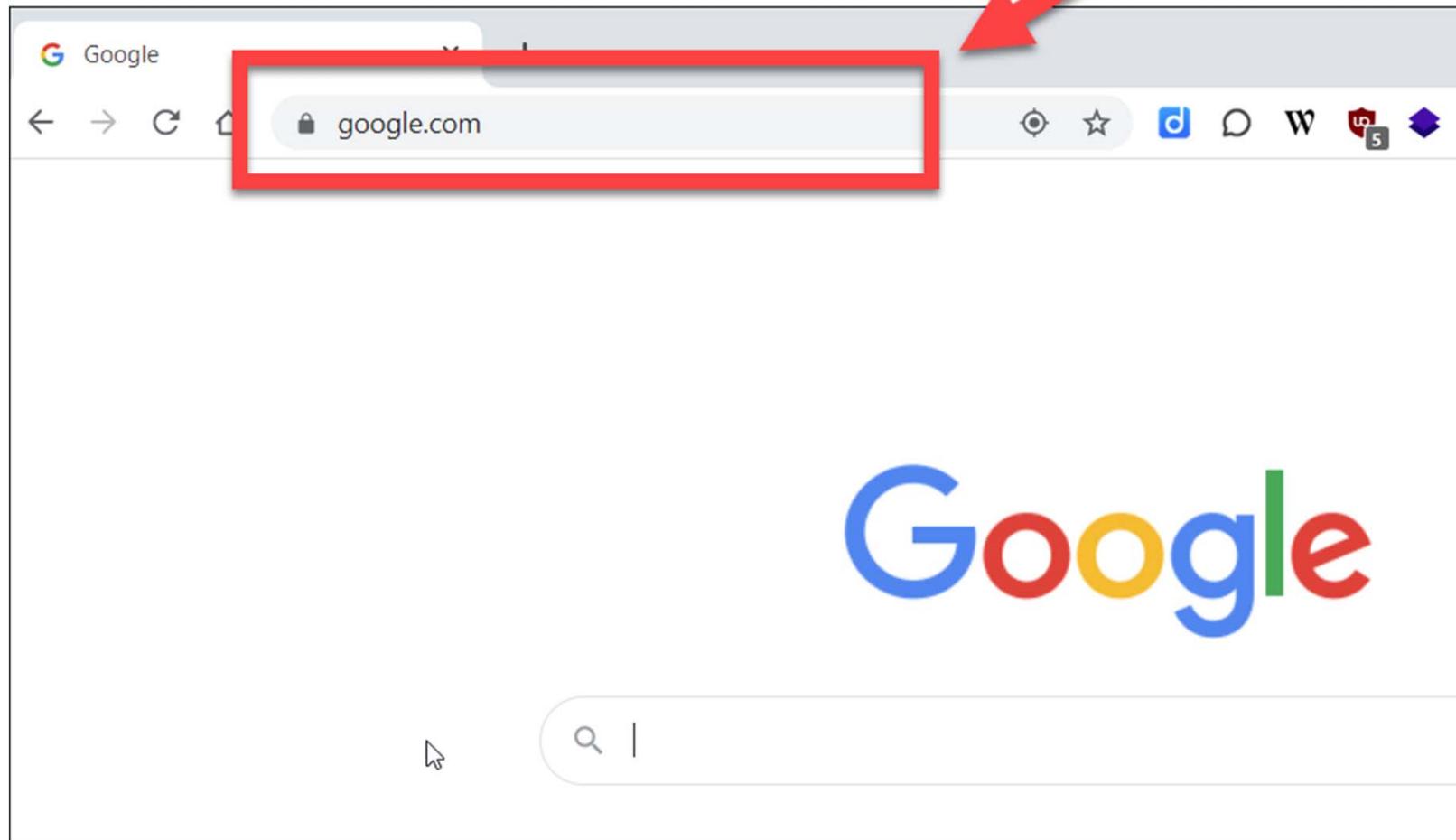


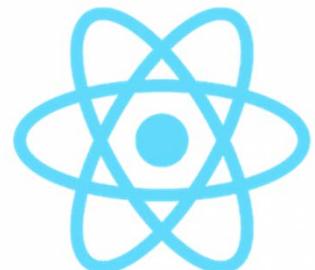
3. Data binding, Props, Events



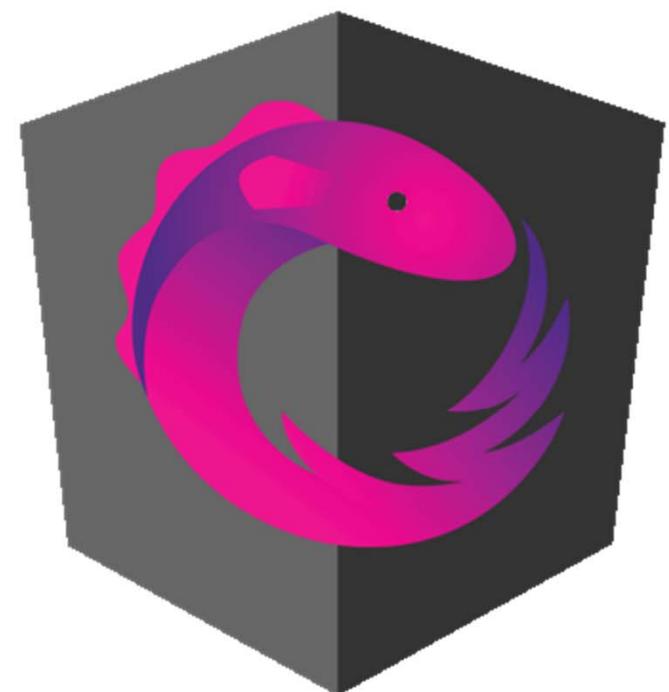


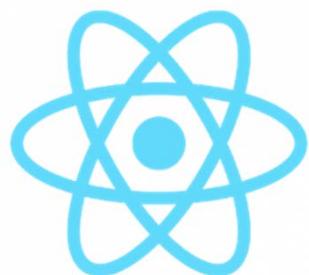
4. Routing





5. State management





6. Testing

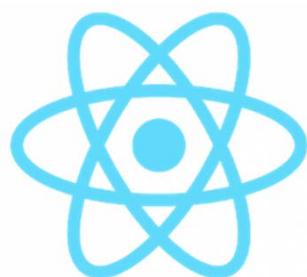




7. Huge ecosystem



8. Huge community



9. High adaptation rate

Ecosystem



Community

facebook / react

Branch: master

Code Issues Pull requests Actions Projects Wiki Security Insights

trueadm committed 65c1377 4 days ago 13,345 commits 82 branches 131 tags

.circleci Add new test cli (#19184) 10 days ago

.codesandbox chore: Build react-dom/server in codesandbox CI (#18679) 3 months ago

.github Fix spelling errors and typos (#19138) 20 days ago

fixtures make link https (#19147) 6 days ago

packages Fix Flow from #19239 (#19242) 4 days ago

scripts Fork legacy-events folder into react-dom and react-native (...) 5 days ago

.editorconfig https link to editorconfig.org (#18421) 3 months ago

.eslintignore Import React DevTools v4 10 months ago

.eslintrc Rename Flight to Transcrypt (#18808) 2 months ago

Go to file Add file Code

About

A declarative, efficient, and flexible JavaScript library for building user interfaces.

reactjs.org

javascript react frontend declarative ui library

Readme MIT License

Releases 131

16.13.1 (March 19, 2020) Latest

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stackoverflow Products [angular]

Home PUBLIC Stack Overflow Tags Users FIND A JOB Jobs COMPANIES TEAMS What's this? Free 30 Day Trial

Questions tagged [angular]

Ask Question

The Overflow Blog

Nobody has to lose in worklife balance How Stack Overflow hires engineers

Featured on Meta

New post lock available on meta sites: Policy Lock

Feedback post: New moderator reinstatement and appeal process revisions

Data validation & background for the Thank You Reaction feature test

2020 Moderator Election Q&A - Question Collection

Custom Filters Create a custom filter

Watched Tags edit

223,157 questions

Newest Active Bountied 12 Unanswered More Filter

1 vote How to remove Mat-form-field-wrapper from Mat-form-field? i am using Angular mat-form-field and after css change to make it look like mat-chip, i want to get rid of this outer box (mat-form-field-wrapper). asked 10 mins ago Aditya0033 75 2 10

0 answers html css angular mat-form-field 9 views

0 votes Angular Apollo: Error: GraphQL error: Unknown argument "username" on field "AuthLogin" of type "Mutation". asked 10 mins ago Aditya0033 75 2 10

0 answers I have this error on my angular app, using apollo for graphql ERROR Error: GraphQL error: Unknown argument "username" on field "AuthLogin" of type "Mutation".

stackoverflow.com

Medium

vue.js

Stories People Publications Tags

STORIES

Rever Score in reverdev Aug 31, 2017 · 9 min read

Why we moved from Angular 2 to Vue.js (and why we didn't choose React)

By Luis Elizondo

TAGS

Vuejs JavaScript Vue Web Development Front End Development React Programming Vuex Laravel Nodejs

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Peter Kassenaar @peterkassenaar

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MY TAGS #javascript #react #typescript #angular

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Thank you!

Siddharth Ajmera in for Angular Jul 5 (20 hours ago)

We hosted a successful India-wide Angular Fundamentals Workshop with ngGirls

Level Up Your Writing Skills in English products

Odin - The Programmable, Observable and Distributed Job Scheduler collabs

HOWCOLORS.WORK - A CSS color notation guide. education

React Hooks • Debounce and Throttle (Free video series) education

Learning to code by doing

dev.to

Adaptation rate



Log In · Signup for Free

EN DE FR ES Русский 한국어 日本語 简体中文

builtWith Tools ▾ Features ▾ Plans & Pricing Customers Resources ▾

Website, Tech, Keyword **Lookup**

Find out what websites are Built With

Enter a website address, a technology name or a keyword **Lookup**

Lead Generation

Build lists of websites from our database of 42,380+ web technologies

Home / All Live Afterpay Sites / Technologies

All Live Afterpay Sites 

Export Advanced Filter

<https://builtwith.com/>

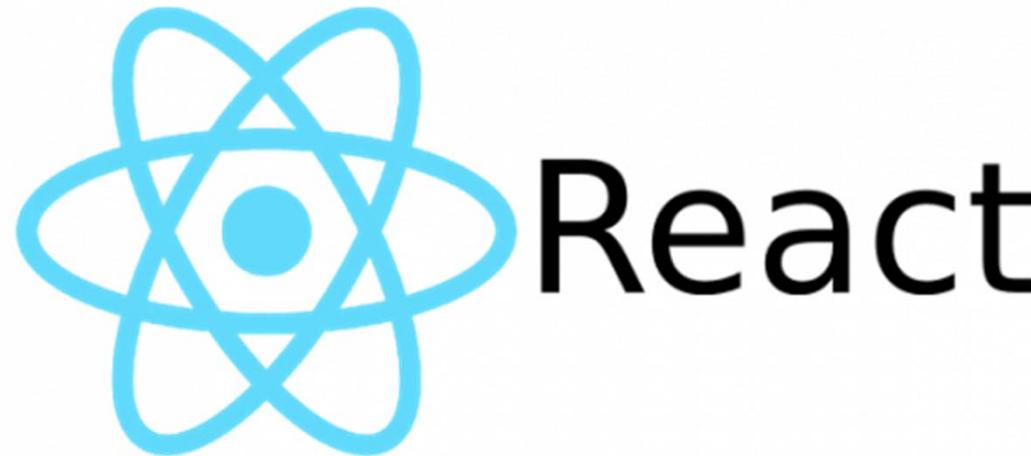
Differences (apart from syntax)



Point of departure: *HTML template*,
enhanced with framework specific tags
and attributes

Aim: *one-stop-shop* / solution

Differences



Point of departure: **JavaScript**, **JavaScript**,
JavaScript (JSX)

Build-all-yourself, possible **elective stress**

Differences



SVELTE

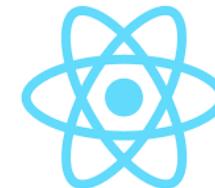
Point of departure: no framework

in the browser

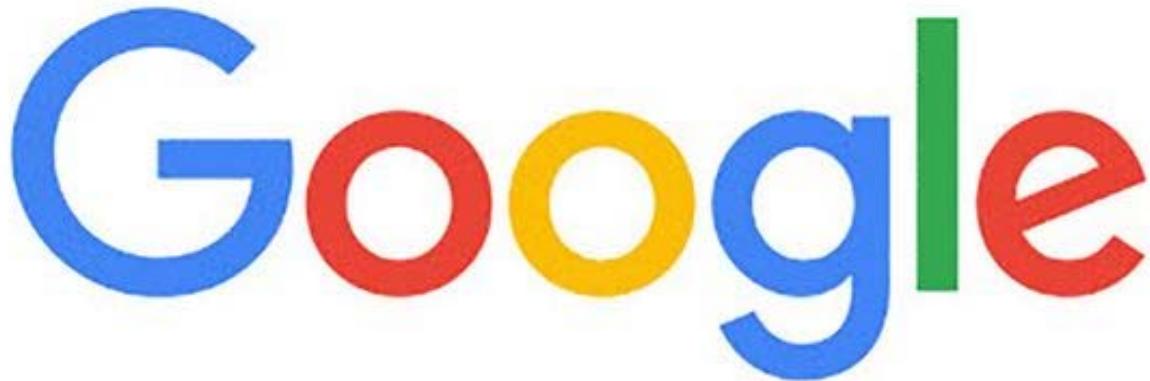
Compile all code to plain JavaScript

Frameworks vs. Libraries

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



SVELTE



ANGULAR FEATURES DOCS RESOURCES EVENTS BLOG

Search

The Angular logo, which consists of a red hexagon containing a white stylized letter 'A'.

One framework.
Mobile & desktop.

GET STARTED

#NGCONF2020

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

LEARN MORE

A cluster of icons representing various devices: a smartphone, a laptop, a tablet, and a desktop computer, all featuring the Angular logo.

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



 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.

Vue.js – Created by Evan You



The screenshot shows the Patreon page for Evan You, the creator of Vue.js. At the top, there's a navigation bar with links for 'PATREON', 'Find a creator', 'Create On Patreon', 'Explore Creators', 'Sign Up', and 'Log In'. Below the navigation is a large green circular badge featuring a white 'V' logo, surrounded by the text 'FINEST QUALITY JAVASCRIPT' and 'EST. 2014'. To the left of the badge is a circular profile picture of Evan You, a man with glasses. Below the badge, the text 'Evan is creating Vue.js' is displayed. Underneath the profile picture are two tabs: 'Overview' (which is highlighted in red) and 'Posts'. To the right of the tabs is a large orange 'BECOME A PATRON' button. On the left side of the main content area, there are statistics: '227 patrons' and '\$16,646 per month'. Below these stats are buttons for '+ FOLLOW' and 'SHARE', along with social media links for Twitter and Facebook. On the right side, there's a section titled 'TIERS' with two levels: 'Backer' (\$10 or more per month) and 'Generous Backer' (\$50 or more per month). Each tier has a description and a 'JOIN \$10 TIER' or 'JOIN \$50 TIER' button. The central content area contains several paragraphs of text about the project, its goals, and how to support it.

227
patrons

\$16,646
per month

+ FOLLOW SHARE

GOALS View all < >

Evan is creating Vue.js

BECOME A PATRON

TIERS

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

Svelte – Created by Rich Harris

The screenshot shows the official Svelte website. At the top, there's a navigation bar with links to Tutorial, Docs, Examples, REPL, Blog, FAQ, SvelteKit, and a search icon. The main header features the word "SVELTE" in large, bold, dark letters, with "Cybernetically enhanced web apps" in smaller text below it. To the right of the header is a large, stylized orange "S" logo. Below the header are three colored boxes: orange, blue, and dark grey, each containing a bullet point. The orange box says "Write less code" and "Build boilerplate-free components using languages you already know – HTML, CSS and JavaScript", with a "learn more →" link. The blue box says "No virtual DOM" and "Svelte compiles your code to tiny, framework-less vanilla JS – your app starts fast and stays fast", also with a "learn more →" link. The dark grey box says "Truly reactive" and "No more complex state management libraries – Svelte brings reactivity to JavaScript itself". At the bottom left, there's a paragraph about Svelte's compilation process. On the right side, there's a video player showing a man with a beard and headphones, identified as Rich Harris, speaking. The video player has a dark overlay with the text "devtools FM #15", "Rich Harris", and "Svelte, Rollup".

SVELTE
Cybernetically enhanced web apps

Write less code
Build boilerplate-free components using languages you already know – HTML, CSS and JavaScript
[learn more →](#)

No virtual DOM
Svelte compiles your code to tiny, framework-less vanilla JS – your app starts fast and stays fast
[learn more →](#)

Truly reactive
No more complex state management libraries – Svelte brings reactivity to JavaScript itself

Svelte is a radical new approach to building user interfaces. Whereas traditional frameworks like React and Vue do the bulk of their work in the browser, Svelte shifts that work into a *compile step* that happens when you build your app.

devtools FM #15

Rich Harris

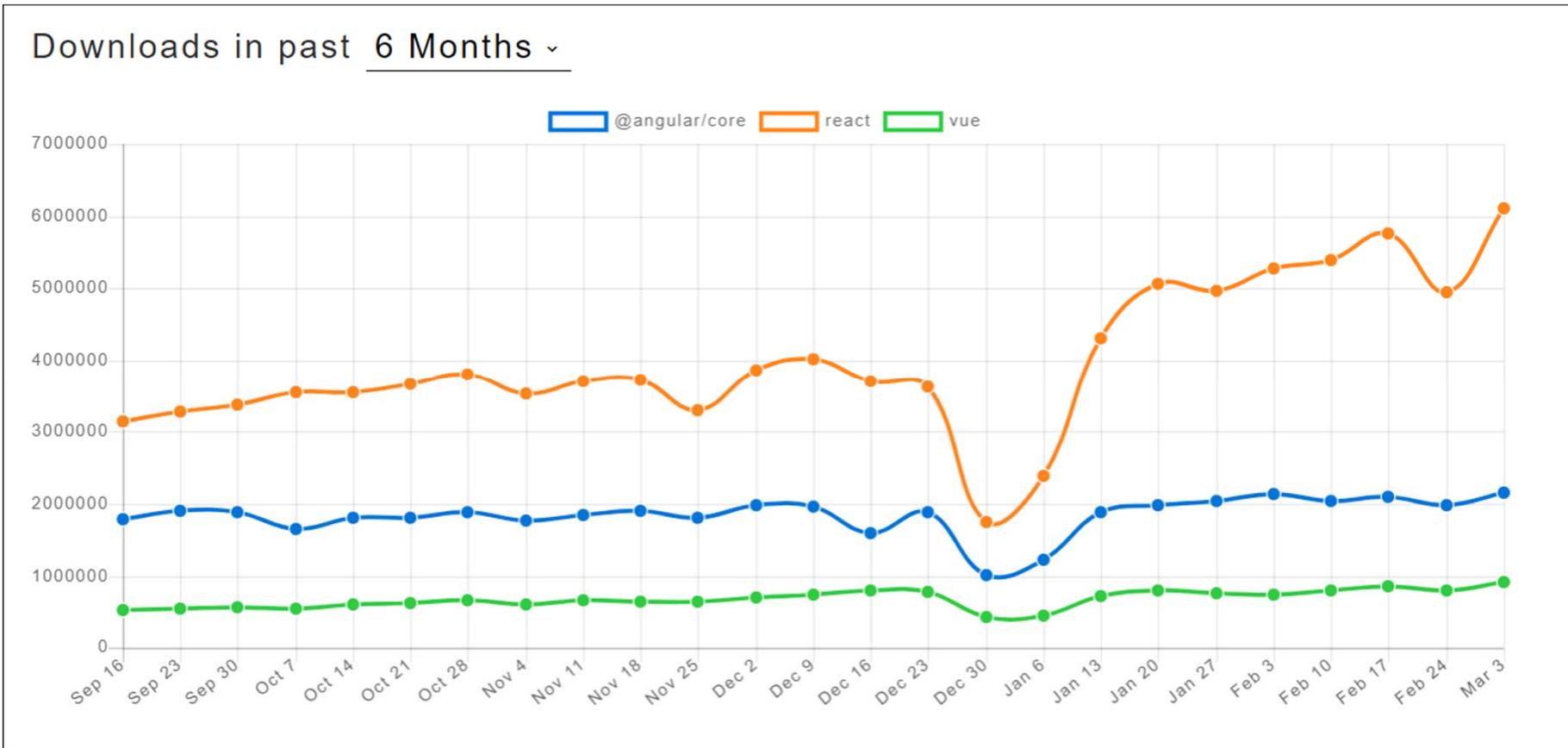
Svelte, Rollup



Popularity

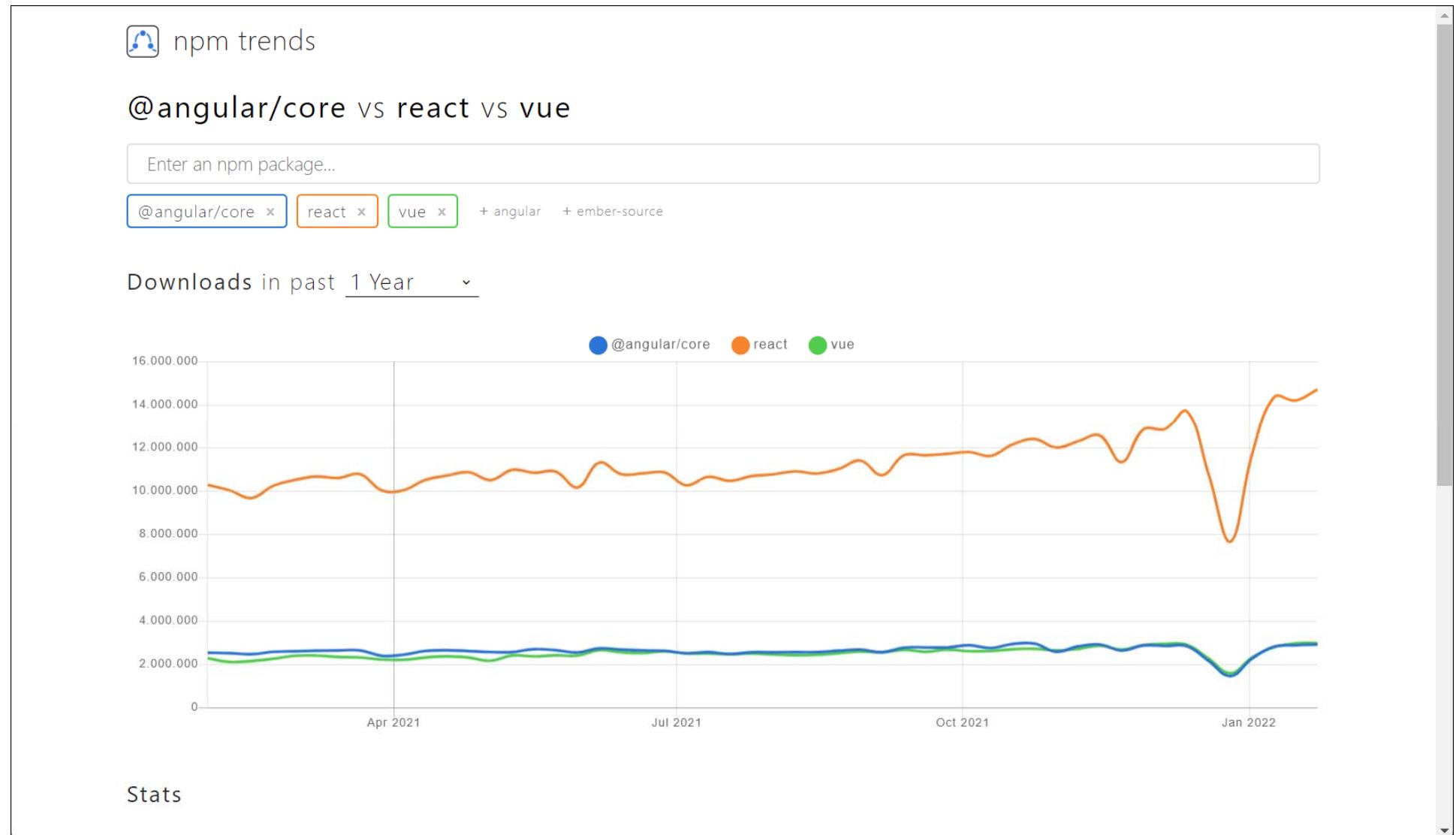
Which framework has the largest user/developer base?

A 2019 comparison



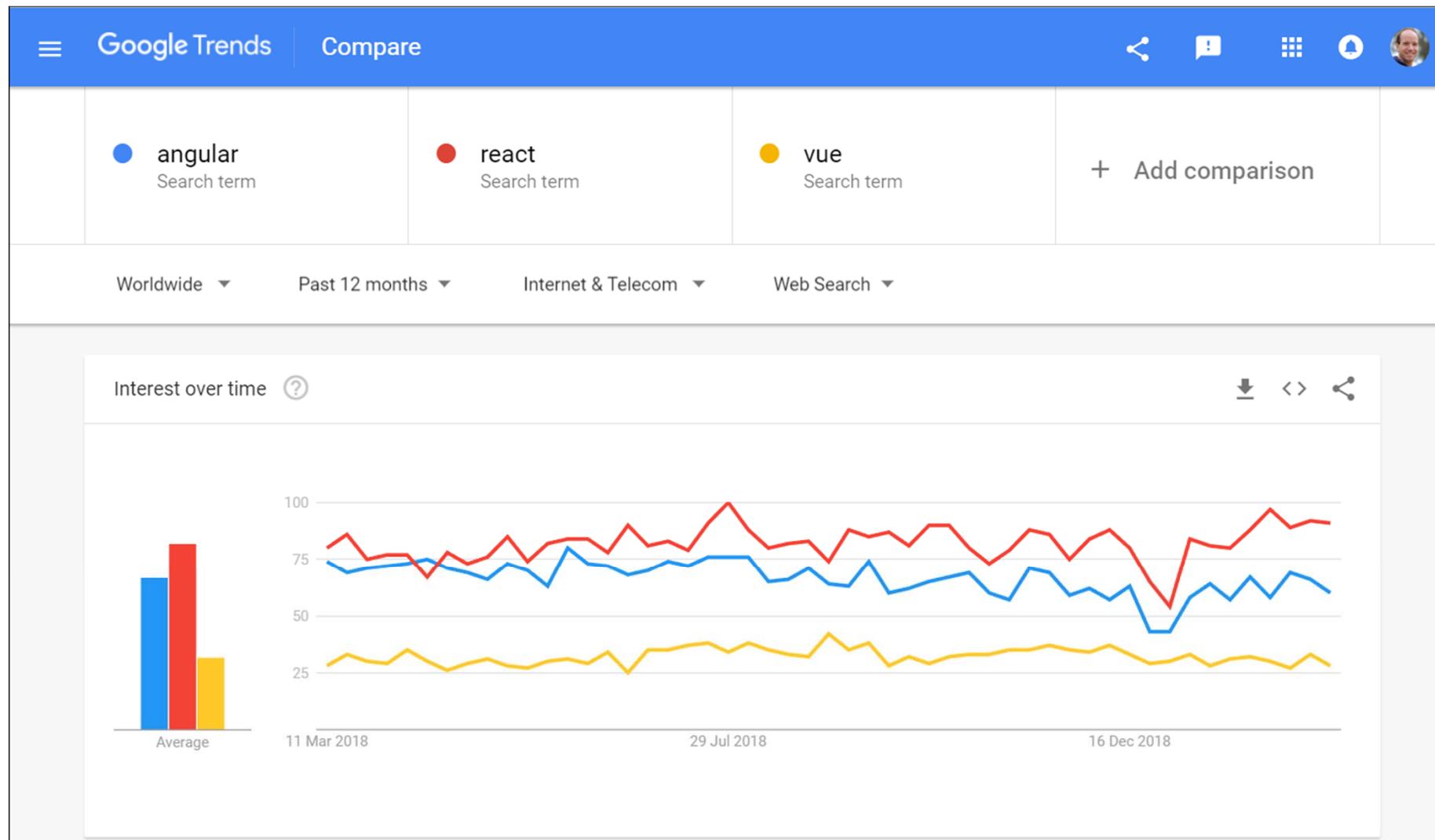
[@angular/core-vs-react-vs-vue](https://www.npmtr...)

A 2022 comparison



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

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 ... >

1. freeCodeCamp/freeCodeCamp	★ 298396
2. vuejs/vue	★ 129161
3. twbs/bootstrap	★ 128833
4. facebook/react	★ 124937
5. tensorflow/tensorflow	★ 123450
6. EbookFoundation/free-programming-books	★ 118765
7. sindresorhus/awesome	★ 99459
8. d3/d3	★ 83265
51. zeit/next.js	★ 35904
52. moment/moment	★ 35598
53. nodejs/node-v0.x-archive	★ 35577
54. ionic-team/ionic	★ 35555
55. typicode/json-server	★ 35389
56. mrdoob/three.js	★ 35013
57. rust-lang/rust	★ 34749
58. shadowsocks/shadowsocks-windows	★ 34747

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

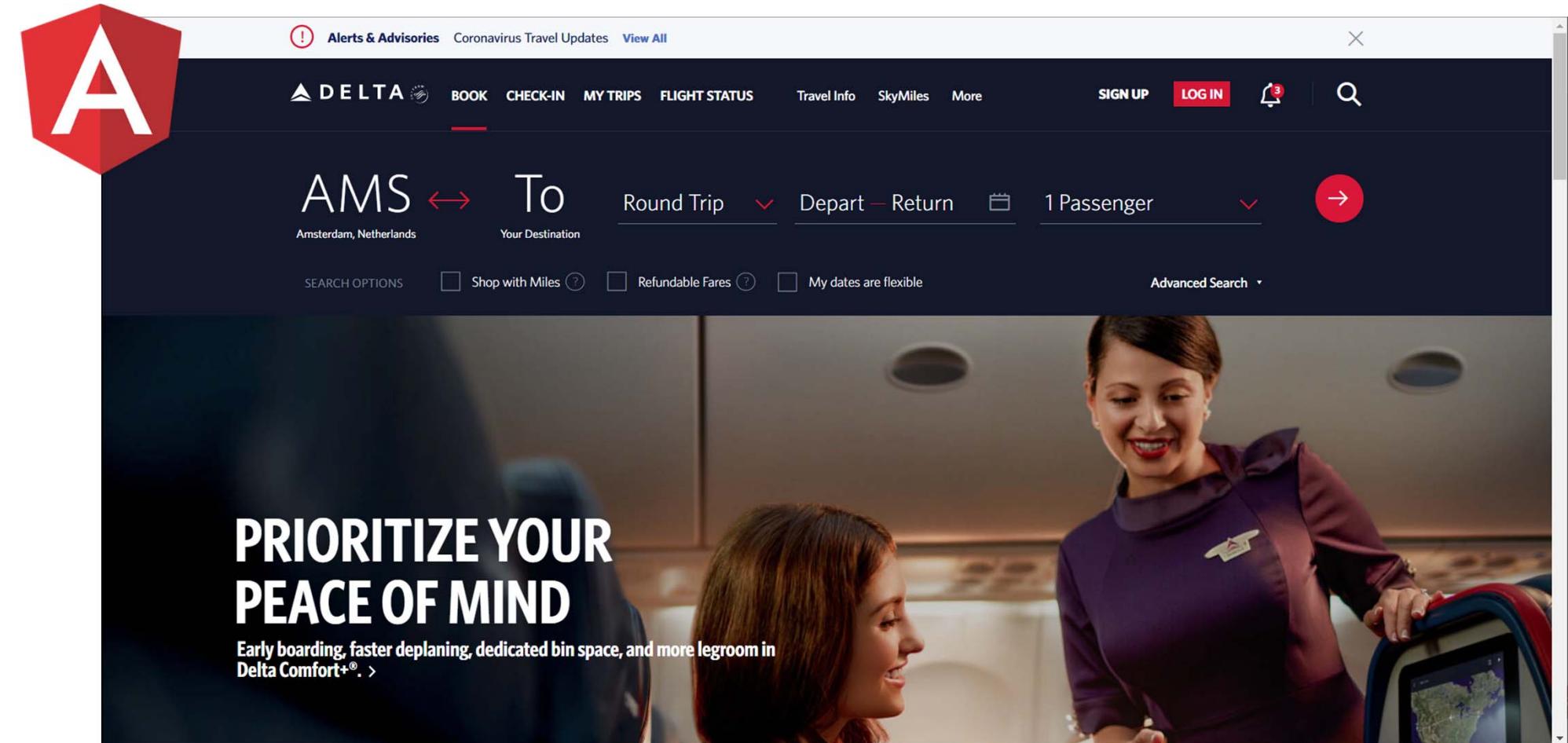
“Vue is used by Alibaba, Baidu, Nintendo, GitLab, L’Oréal and many others”



The screenshot shows the homepage of madewithvuejs.com. At the top, there's a navigation bar with 'Collection' and 'Blog' buttons, a 'CATEGORIES' dropdown, and social media links for LinkedIn and Twitter, along with a 'SUBMIT A PROJECT' button. Below the navigation is a large logo consisting of a green and white 'V' inside a circular compass-like frame. The text 'made with `vue.js`' is displayed below the logo. A prominent banner at the bottom of the page announces a 'CYBER MONDAY @ Creative Tim: 30 Templates for 90% off!' with a 'GET IT' button. Below this banner is a project card for 'My Nintendo'. The card features a red header with the 'My Nintendo' logo and a 'Get started with My Nintendo!' call-to-action. It includes two buttons: 'Create account' and 'Sign in'. Below the card, it says 'by Armin & Melanie'. To the right of the card, there's a summary: 'My Nintendo Reward System for Nintendo accounts #Websites #WebApps 2.810'. Further down, another project card is visible for 'Vue FilePond'.

<https://madewithvuejs.com/>

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



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

The screenshot shows the Dropbox web interface at [dropbox.com/h](https://www.dropbox.com/h). The left sidebar includes links for Home, Files, Paper, Transfer (Beta), and Showcase. A large blue React logo watermark is visible on the left side of the main content area. The main area displays a 'Home' folder containing four sub-folders: '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 starring items for easy access, followed by a 'Recent' section listing a presentation titled '10- React Fundamentals - introduction.pptx' edited 19 mins ago. On the right, there's a sidebar with options to 'Create new file', 'Upload files', 'Upload folder', 'New shared folder', and 'Create Paper doc'. A 'Search' bar and user profile icons are also present.

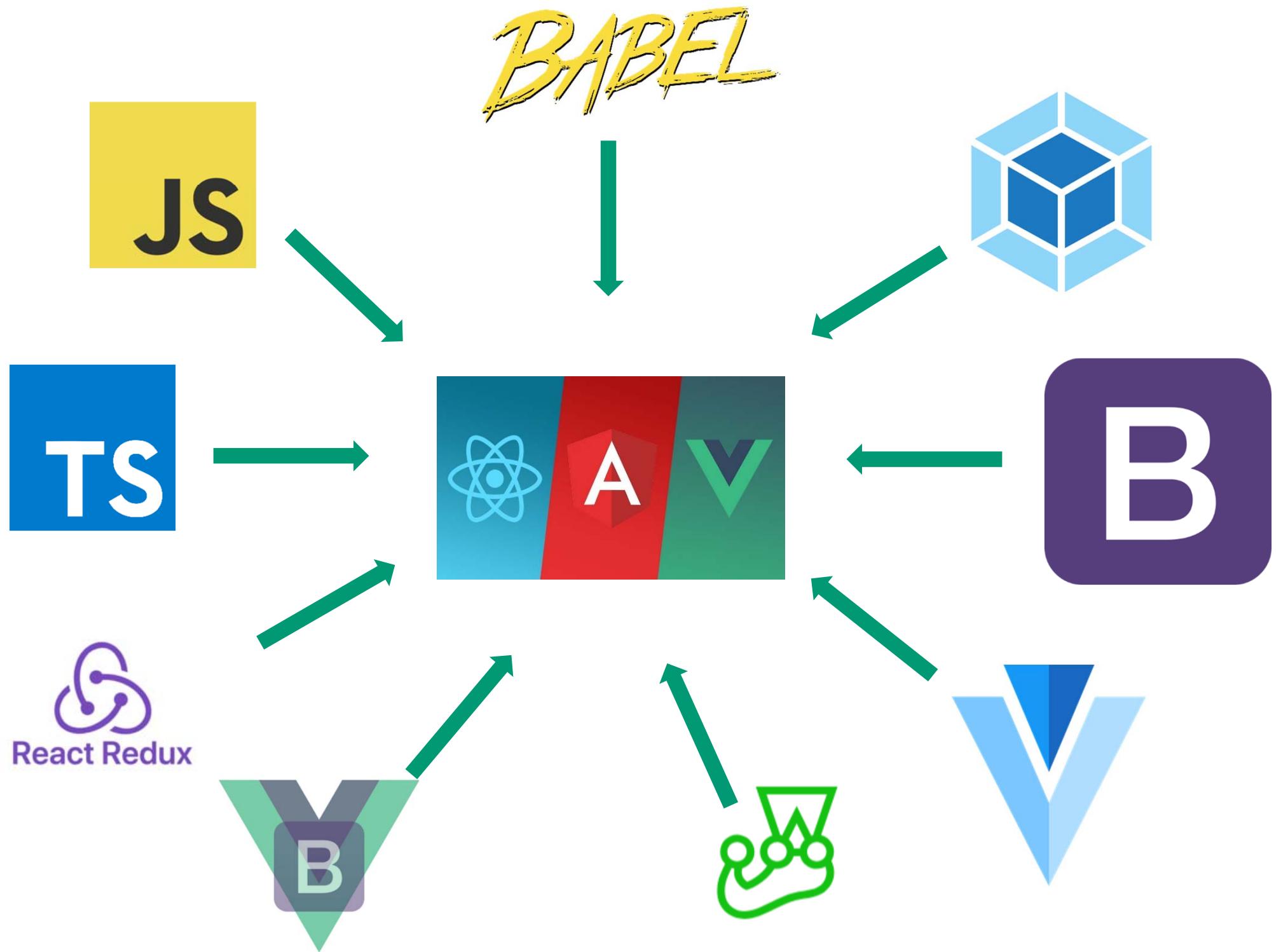
Svelte is the “*new kid on the block*”, and not used as much – yet – as the other frameworks

The screenshot shows the homepage of the Piktochart website. At the top, there is a dark banner with the text "Piktochart's Privacy Policy has been updated and is going into effect on February 16. Please [take a look](#)." Below this is the main navigation bar with the "PIKTOCHART" logo, "Create", "Templates", "Resources", "Plans", "Login", and "Sign up" buttons. The main headline reads "The all-in-one visual storytelling solution". Below the headline is a description: "Piktochart is the most intuitive and affordable way to tell visual stories with infographics, reports, presentations, and prints." To the right of the text is a large image of a hand interacting with a digital interface, showing various infographics and user profiles. At the bottom left is a large orange "S" logo with the word "SVELTE" below it. A teal button says "Start creating for free". At the very bottom, there are logos for Disney, United, Keflavik, Booking.com, and Expedia, along with a "Help" button and the URL "story.piktochart.com".



The Frontend ecosystem

Frameworks are not isolated/not living on an island

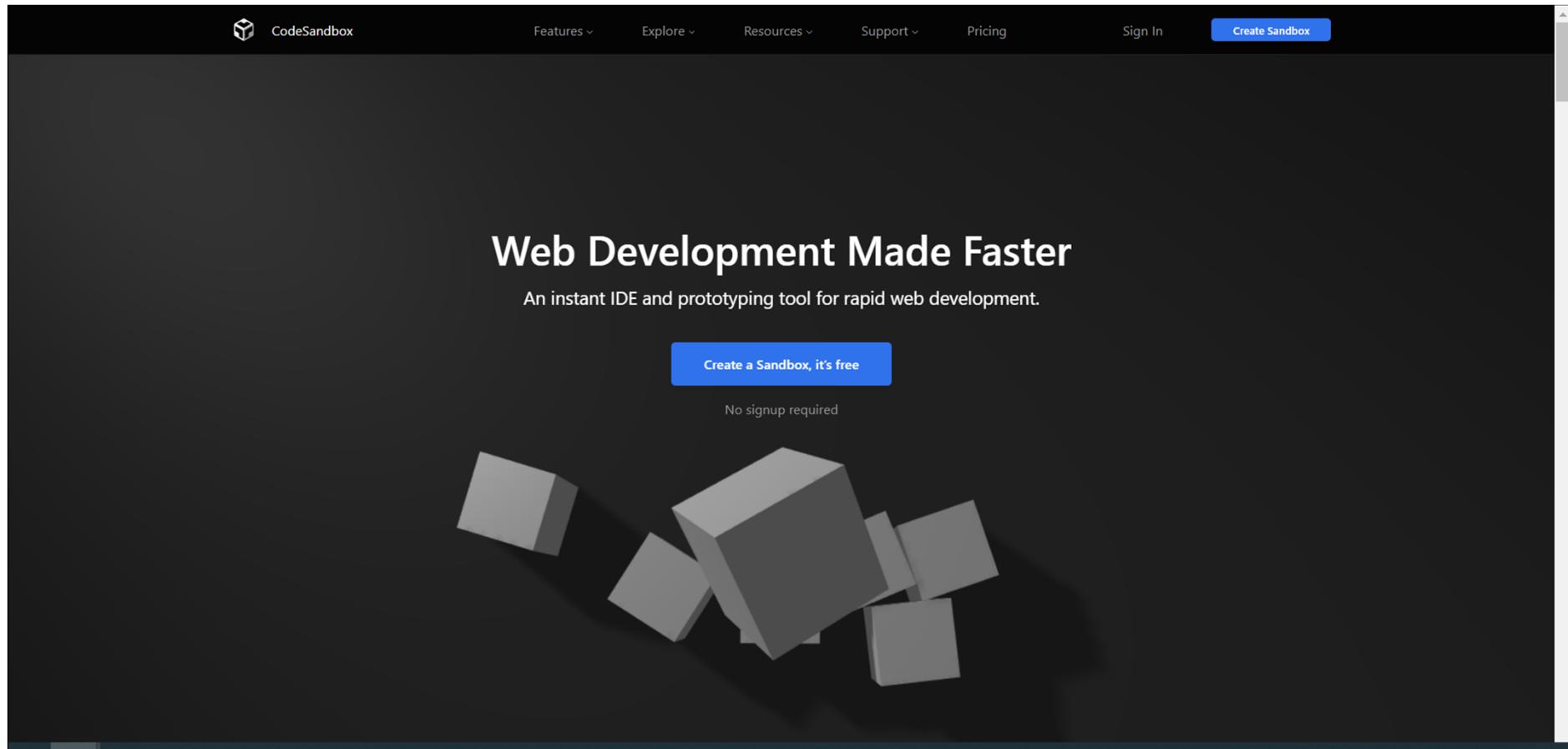


Additional services, options, etc.

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

- Amplify Framework**: An orange-themed landing page 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 React logo.
- Cloudinary**: A dark-themed landing page with a navigation bar at the top containing "About", "Blog", and "Contact". The main area features the Cloudinary logo and links for "SOLUTIONS", "PRICING", and "CLOUDINARY".
- Vue Mastery**: A light blue-themed landing page for learning Vue.js. It features the "Vue Mastery" logo and navigation links for "Courses" and "Pricing". Below this, large text reads "The ultimate guide for Vue".
- CodeSandbox**: A dark-themed landing page for an online code editor. It features the text "CodeSandbox" and "The online code editor for Web". It includes a prominent "OPEN EDITOR" button and a "EXPLORE EXAMPLES" link.

Codesandbox.io



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

Visual Studio | Marketplace

Sign in 

Visual Studio Visual Studio Code Azure DevOps Subscriptions Build your own Publish extensions

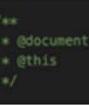
Extensions for the Visual Studio family of products

Search Visual Studio Code extensions 

Featured

 Formatting Toggle tombonnike  347K FREE	 Browser Preview Kenneth Auchenber  232K FREE	 Better Align wwm  141K FREE	 GitHub Theme GitHub  47.8K FREE	 Deno denoland  20.3K FREE	 Azure Static Web App Microsoft  1.2K FREE
--	---	---	--	--	--

Trending this week

 Opencv Snippets	 Caché Relationship Cr	 Pylance	 Document This	 Which Key	 Flutter Preview
--	--	--	--	--	--

<https://marketplace.visualstudio.com/vscode>



Going even further...

Frameworks on top of **Frameworks**

Some 'Meta'-frameworks, addressing common design issues with regular Angular, Vue, React, etc.

Why meta-frameworks?

*To solve *common tasks* in
frontend development*

Vue? → Nuxt

NuxtJS

Discover ▾ Learn ▾ Explore ▾ Community ▾ Partners

Learn

Easy to learn. Easy to master

Learn everything you need to know, from beginner to master.

From CLI From Scratch

index.vue

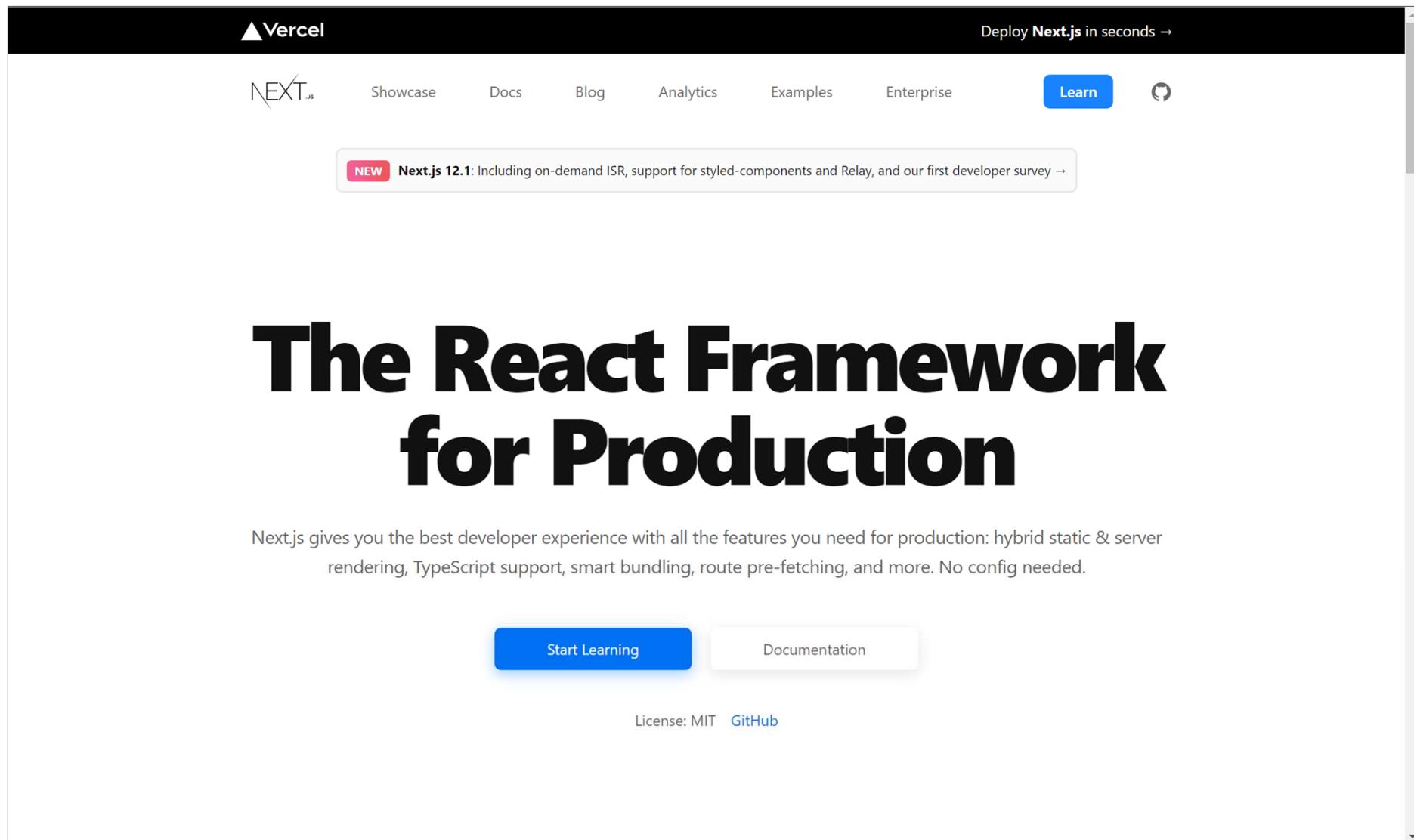
```
1 <template>
2   <div>
3     <Logo/>
4     <NuxtCard/>
5     <NuxtCard/>
6     <AlertBanner/>
7   </div>
8 </template>
```

Start learning

Learn about cookies' with a 'Got it' button."/>

<https://nuxtjs.org/>

React? → Next.js



The screenshot shows the official Next.js website. At the top, there's a black header with the Vercel logo on the left and a button to "Deploy Next.js in seconds" on the right. Below the header is a navigation bar with links for Showcase, Docs, Blog, Analytics, Examples, Enterprise, Learn (which is highlighted in blue), and a GitHub icon. A pink banner at the top of the main content area says "NEW Next.js 12.1: Including on-demand ISR, support for styled-components and Relay, and our first developer survey →". The main title "The React Framework for Production" is displayed in a large, bold, black font. Below the title, a paragraph explains that Next.js provides a best developer experience with hybrid static & server rendering, TypeScript support, smart bundling, route pre-fetching, and more, all without config needed. There are two buttons at the bottom: a blue "Start Learning" button and a white "Documentation" button. At the very bottom, it says "License: MIT" and has a link to "GitHub".

<https://nextjs.org/>

React? → Remix

The screenshot shows the official Remix website. The top navigation bar includes links for Blog, Docs, GitHub, and Remix Conf. The main hero section features a large, bold, multi-colored text block: "Focused on web fundamentals and modern UX, you're simply going to build better websites". Below this, a smaller paragraph explains that Remix is a full stack web framework that helps users focus on the user interface and work back through web fundamentals to deliver a fast, slick, and resilient user experience. Two buttons at the bottom are "Read the Docs" and "Get Started". To the right of the hero section is a code editor window displaying a snippet of Remix JavaScript code. The code defines a loader function that returns a promise for `getProjects()`, an action function that creates a new project using `createProject()` with the title from the form data, and a default export for the `Projects` component. This component uses `useLoaderData` to get projects, `useTransition` to track state, and a `Form` component to handle project creation.

```
export async function loader({ request }) {
  return getProjects();
}

export async function action({ request }) {
  const form = await request.formData();
  return createProject({ title: form.get("title") });
}

export default function Projects() {
  const projects = useLoaderData();
  const { state } = useTransition();
  const busy = state === "submitting";

  return (
    <div>
      {projects.map((project) => (
        <Link to={project.slug}>{project.title}</Link>
      ))}
    </div>
  );
}

<Form method="post">
  <input name="title" />
  <button type="submit" disabled={busy}>
    {busy ? "Creating..." : "Create New Project"}
  </button>
</Form>
</div>
);
```

<https://remix.run/>

Angular? → Scully

The screenshot shows a web browser displaying a blog post. At the top, there's a navigation bar with icons for search, bookmark, and notifications, along with a "Upgrade" button and a user profile picture. Below the navigation is a header with the logo "Bits and Pieces" and categories like "WRITE FOR US", "JAVASCRIPT", "REACT", "POPULAR STORIES", and "BIT: MICRO FRONTENDS PLATFORM".

Scully: The First Static Site Generator for Angular

Embracing JAMStack with Angular Projects

By Piumi Liyana Gunawardhana | Follow | [Email](#)
Feb 16, 2021 · 7 min read

Share: ...

Scully First, Angular Static Site Generator

Svelte? → SvelteKit

The screenshot shows the official SvelteKit website. At the top left is the SvelteKit logo. A search bar with the placeholder "SEARCH CTRL K" is in the center. On the right, there are links for "Docs", "FAQ", "Svelte", and social media icons. The main title "SVELTE KIT" is prominently displayed in large, bold letters, followed by the subtitle "THE FASTEST WAY TO BUILD SVELTE APPS". To the right of the text is a 3D rendering of a mechanical device shaped like the letter 'S', with glowing orange and yellow internal components, resting on a circular base labeled "SVELTE KIT". Below this are three callout boxes: an orange box on the left titled "Powered by Svelte" with the subtext "SvelteKit is an application framework powered by Svelte – build bigger apps with a smaller footprint" and a "learn Svelte" button; a blue box in the middle titled "Best of both worlds" with the subtext "All the SEO and progressive enhancement of a server-rendered app, with the slick navigation of an SPA" and a "read the docs" button; and a dark grey box on the right titled "Build fast" with the subtext "Hit the ground running with advanced routing, server-side rendering, code-splitting, offline support and more" and a "read the docs" button.

<https://kit.svelte.dev/>

Headless CMS? → Gatsby (React based)

GATSBYCONF 2022 One Week Away Hear from Jamstack visionaries and level up your skills with thousands of Gatsby pros like you - [Register now](#)

GatsbyConf '22 Support Contact Log in

Gatsby Why Gatsby Products Open Source Learn Company

Sign Up for Free



Maybe it's time your CMS had a faster frontend

Gatsby is the fast and flexible framework that makes building websites with any CMS, API, or database fun again. Build and deploy headless websites that **drive more traffic, convert better, and earn more revenue!**

[Get Started](#) [Talk to an expert](#)

60% **10×** **100%**

<https://www.gatsbyjs.com/>

Why?

Solve common problems

Building a production-ready app from scratch

Intelligent defaults

State Management

Default pages

...

Provide a Standard Folder Structure

/Layouts

/Pages

Partials/Views

/Store

/...

Provide SSR

Server-Sided Rendering (SSR)

- Better google Indexation
- Static site generation

Routing included

Adding a component/page

– at the right place –

automatically creates a route to

that page

And more....

Google for...

'React framework'

'Vue framework'

'Angular framework'

And so on...

The screenshot shows the homepage of opensource.com. At the top, there's a dark header with the 'opensource.com' logo, a Red Hat logo (Supported by Red Hat), and navigation links for 'LOG IN' and 'SIGN UP'. Below the header is a blue navigation bar with links for 'Articles', 'Resources', 'Downloads', and 'Community'. On the right side of the blue bar are social media icons for Twitter, Facebook, and RSS. The main content area features a large title '13 of the best React JavaScript frameworks' in bold black text. Below the title is a subtitle: 'If you're using React.js or React Native to create user interfaces, try these frameworks.' A timestamp '21 Jan 2020' and author information 'Amit Dua' with a link icon are shown. The article thumbnail image is a blurred photograph of a computer screen displaying code, specifically a snippet involving 'getElementsByTag' and 'inputs'. A Creative Commons BY-NC-SA license logo is visible in the bottom right corner of the thumbnail. At the very bottom of the page, the text 'Image credits : Photo by Jen Wike Huger' is visible.

Why Not?

“Convention over configuration”

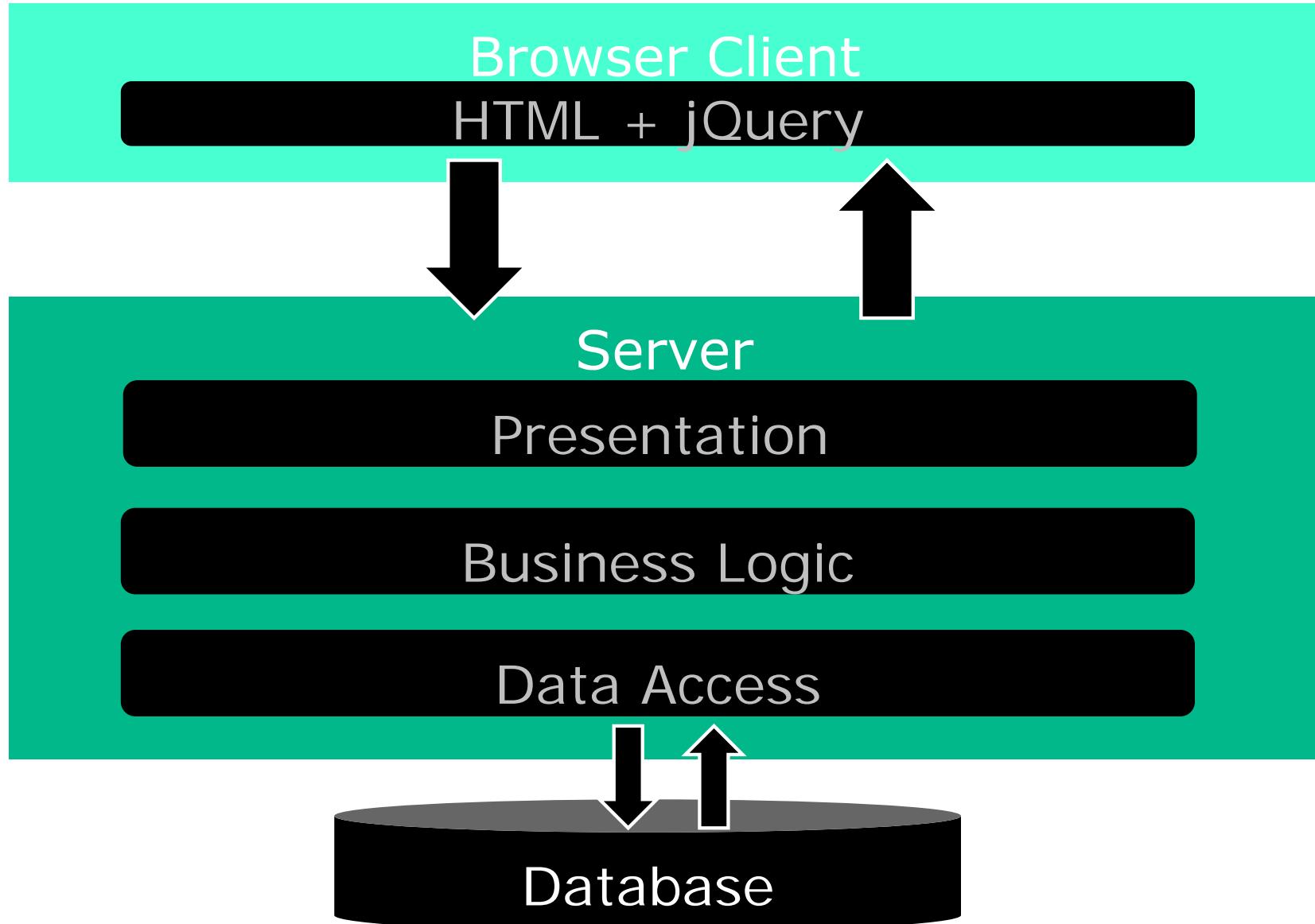
*Their convention might not
be your convention...*



Framework application structure

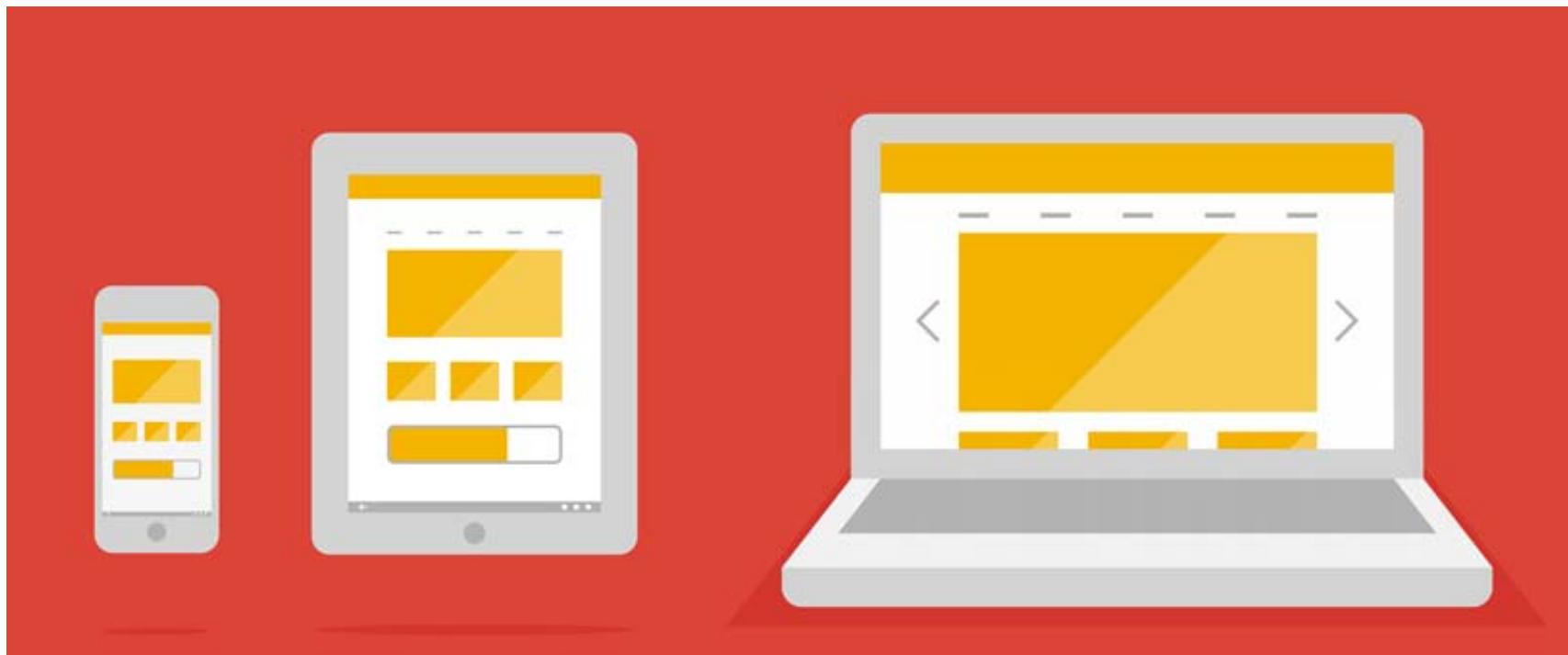
Getting a conceptual understanding of the SPA
architecture

Conventional Web app (ca. 2005 – 2015)

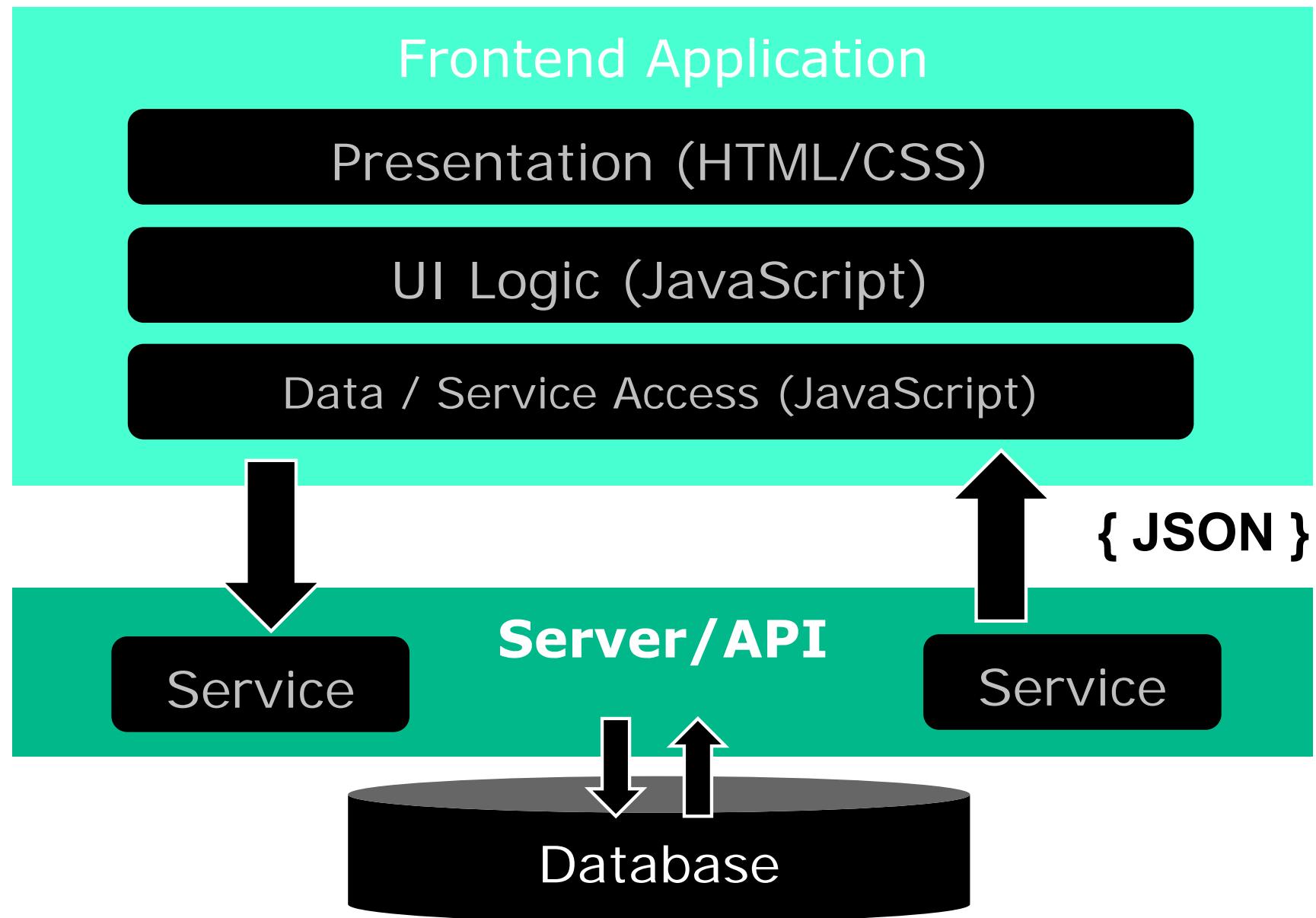


The world is changing...

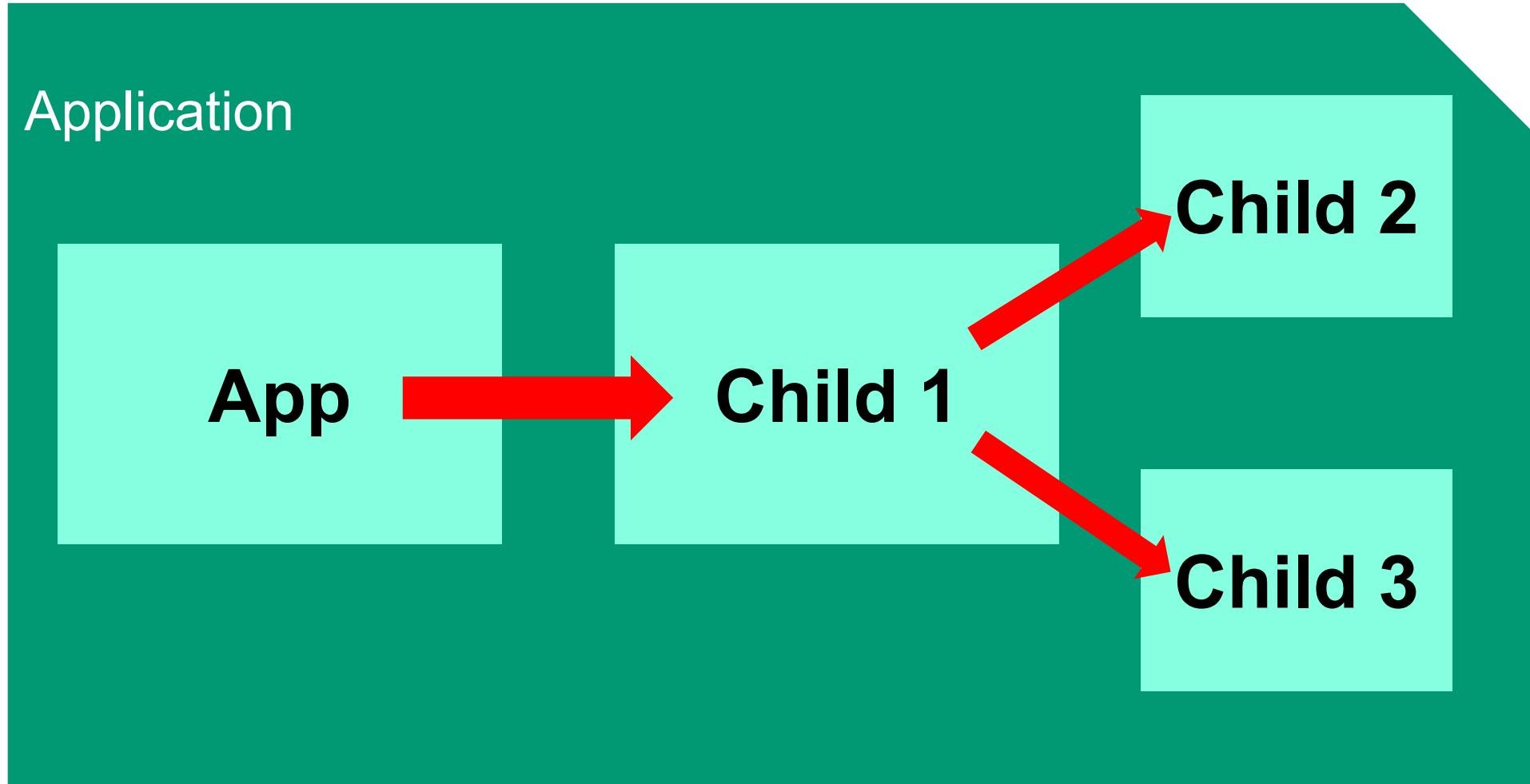
Since ca. 2010 – the growing needs for web
applications on **different form factors**



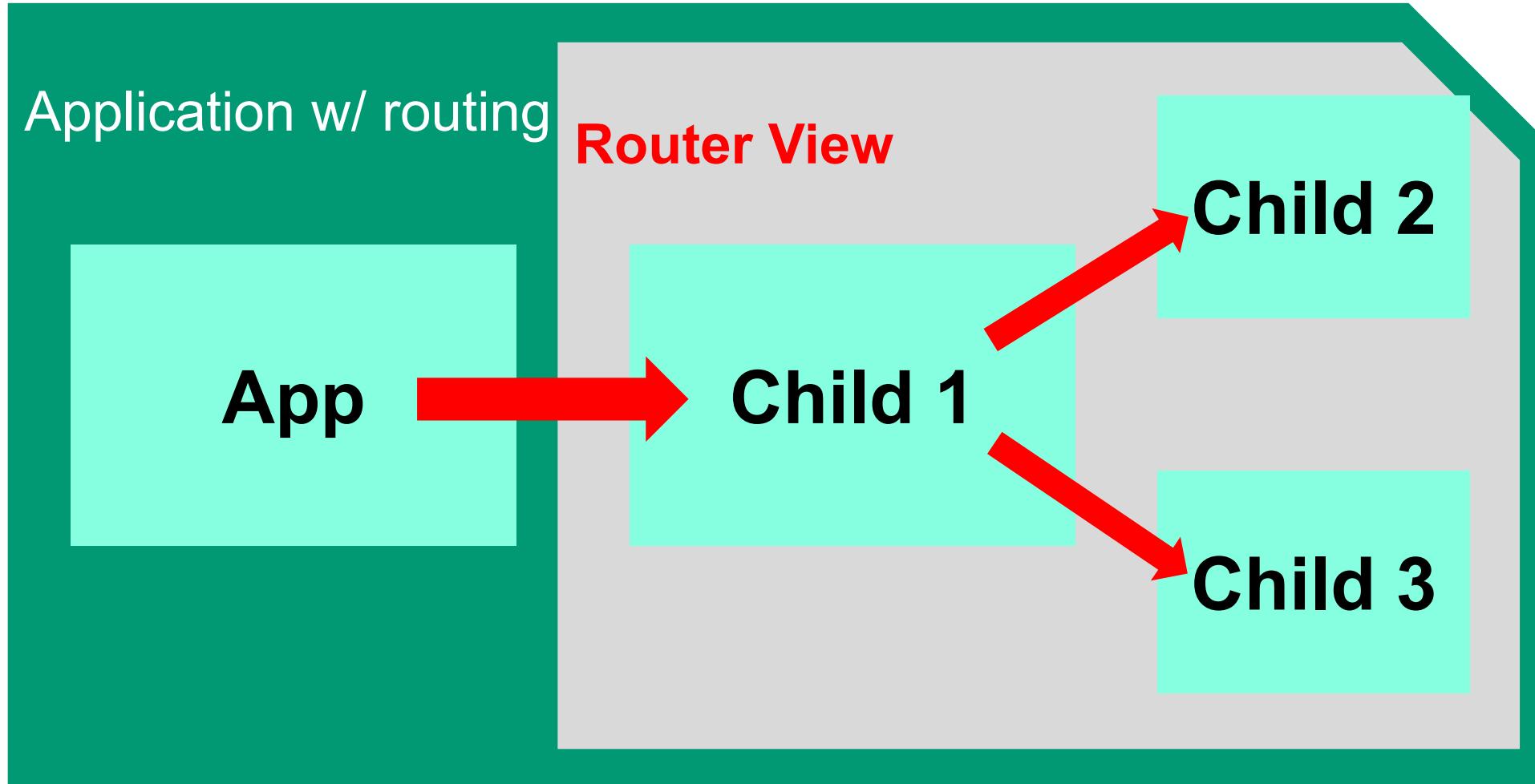
Single Page Applications



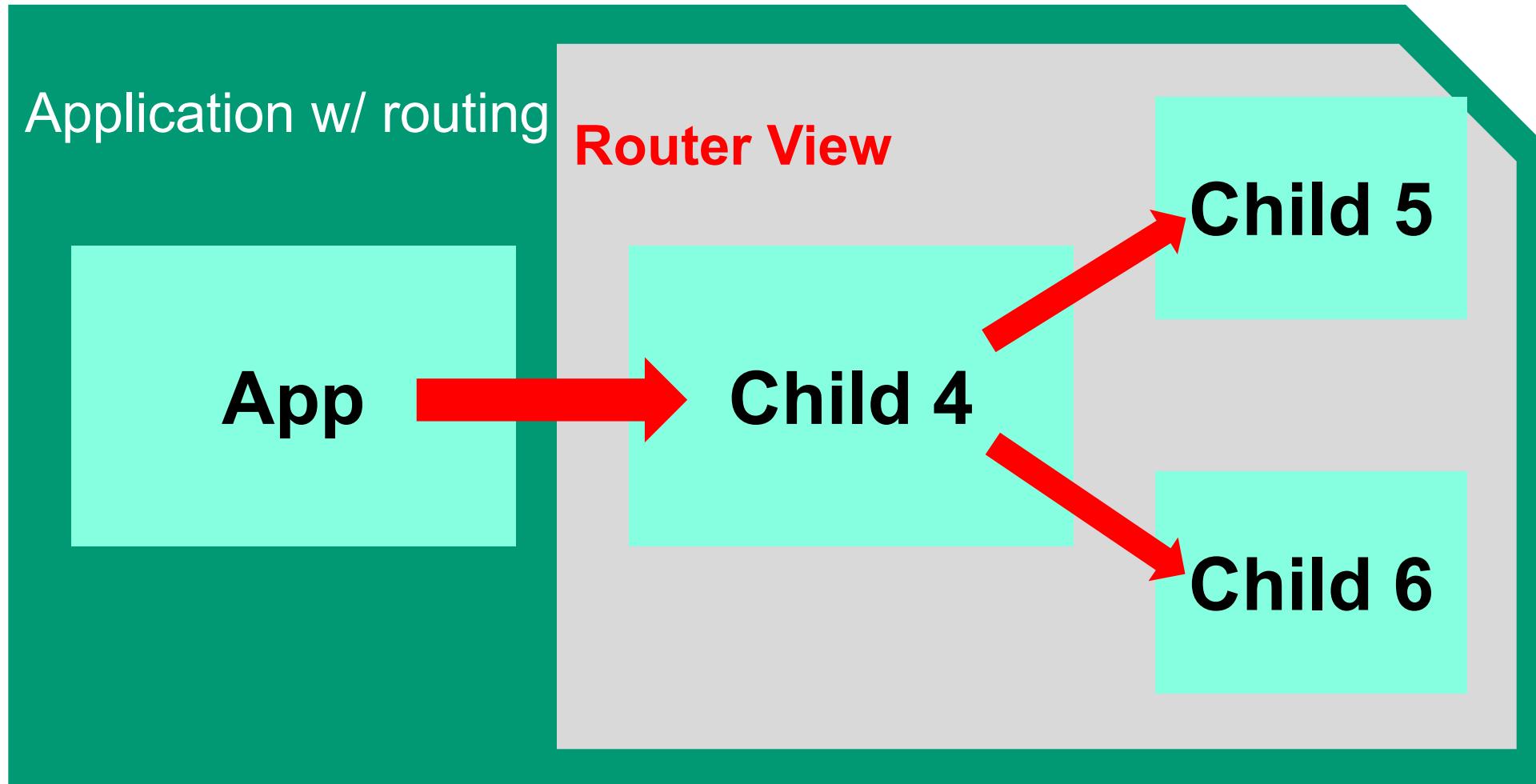
Built on components



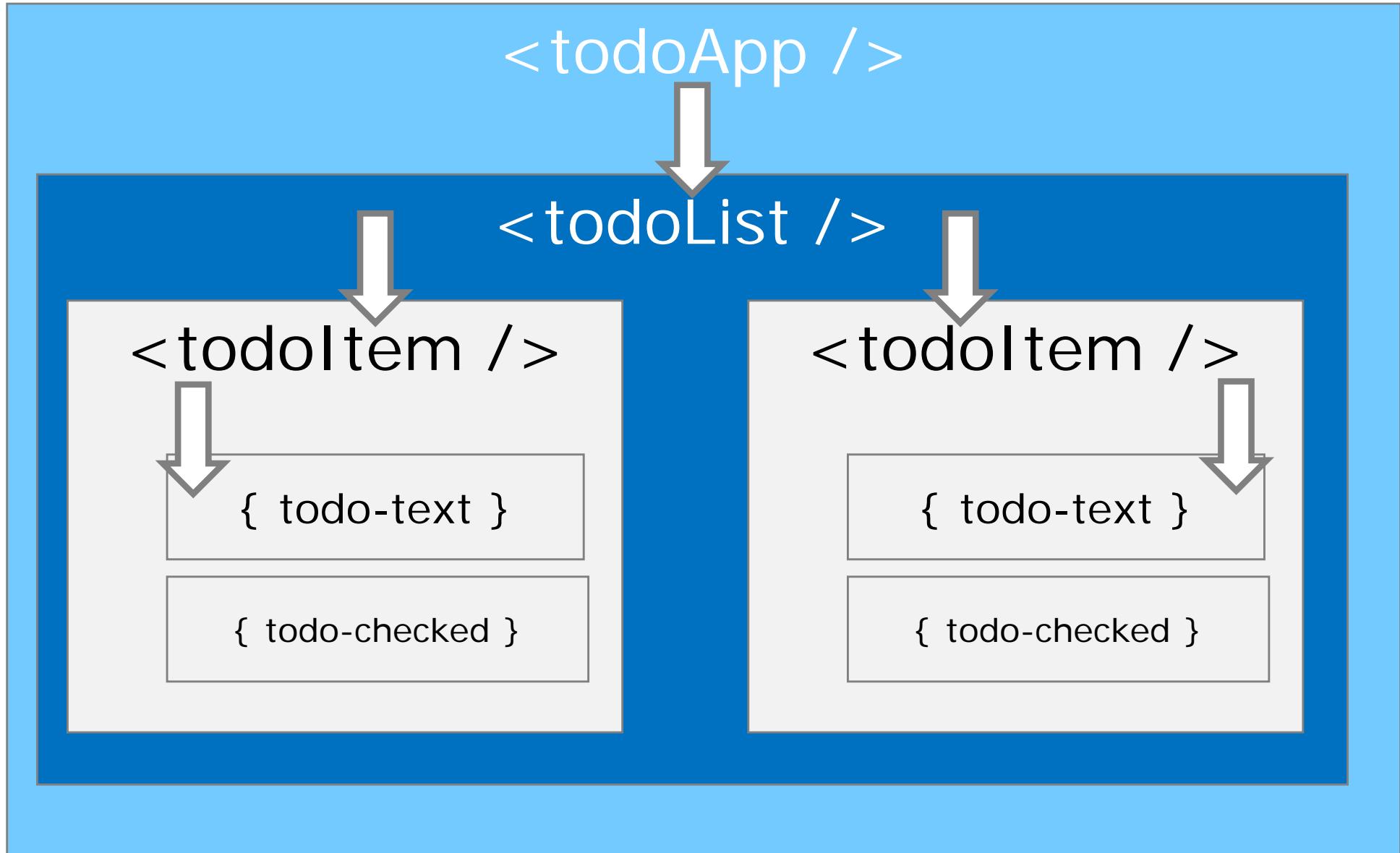
When using routing



As the URL changes, content gets updated

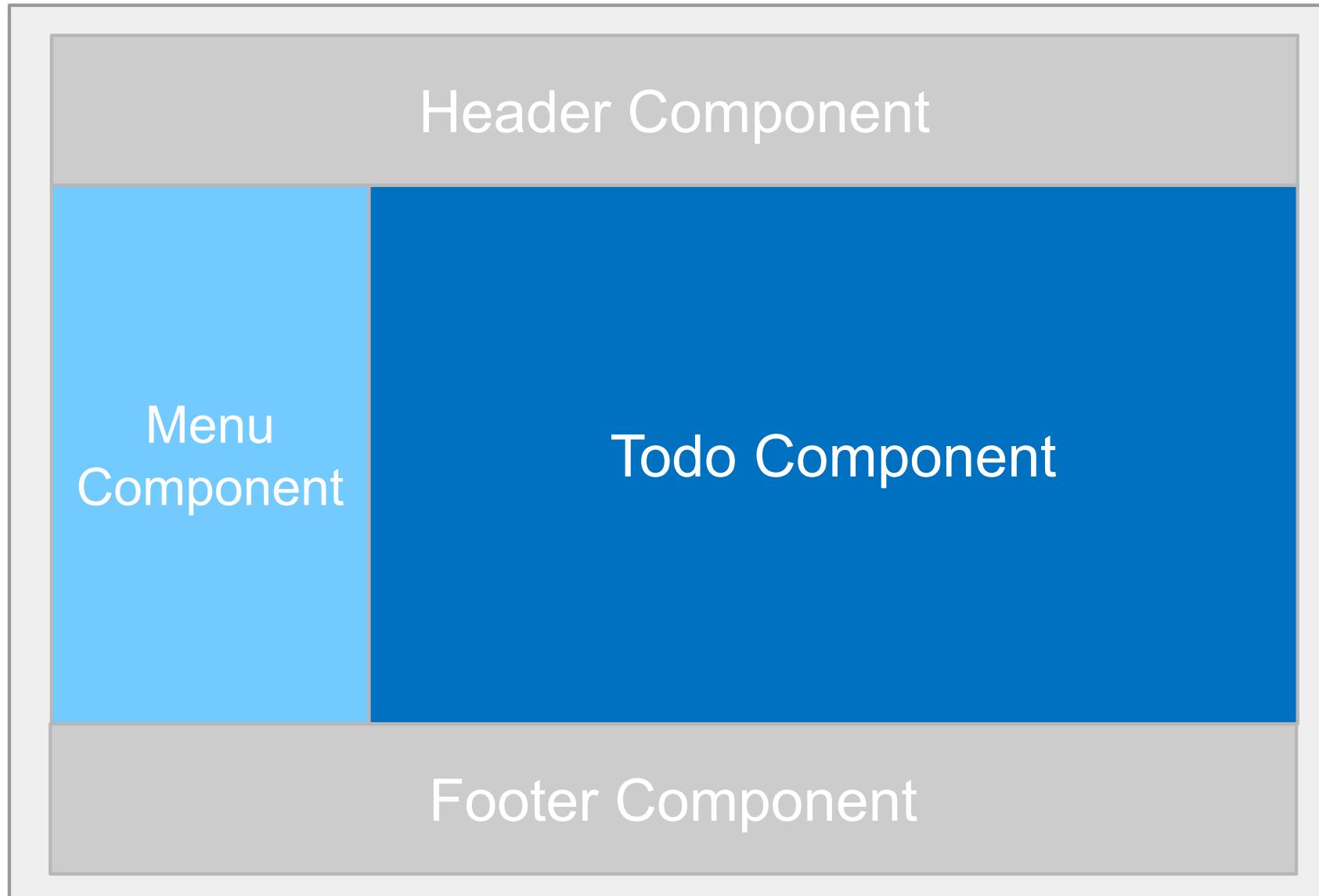


SPA & component structure



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

Components – visual representation





Tooling

Necessary and popular tools for every frontend developer

Contents

- Prerequisites : node.js and git
- Editor
- CLI tools
- Browser DevTools
- Transpiling tools
- Linting tools
- Bundlers
- IDE Extensions



Photo by [Stijn Kleerebezem](#) on [Unsplash](#)

Git

 **git** --fast-version-control

[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

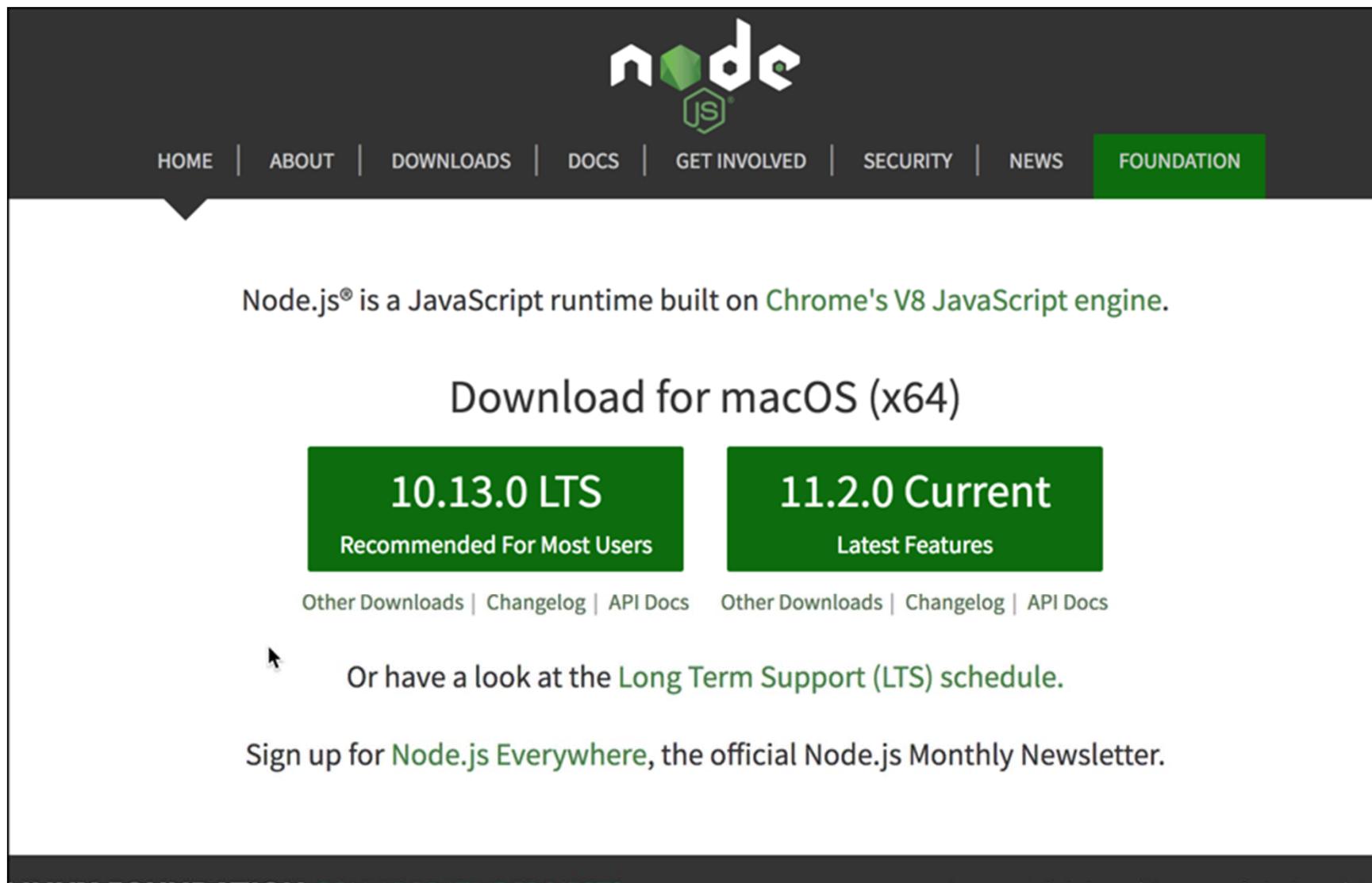
Various Git logos in PNG (bitmap) and EPS (vector) formats are available for use in online and print projects.

 PeterKassenaar

```
Last login: Mon Nov 26 13:28:50 on ttys011
MacBook-Pro:~ PeterKassenaar$ git --version
git version 2.17.2 (Apple Git-113)
MacBook-Pro:~ PeterKassenaar$
```

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

Node.js



The screenshot shows the official Node.js website. 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 bar, a large white section contains the text: "Node.js® is a JavaScript runtime built on Chrome's V8 JavaScript engine." Underneath this, there are two prominent green buttons: one for "10.13.0 LTS" (Recommended For Most Users) and another for "11.2.0 Current" (Latest Features). Below these buttons are links to "Other Downloads", "Changelog", and "API Docs" for both the LTS and Current versions. A mouse cursor is hovering over the LTS button. Further down, there is a link to the "Long Term Support (LTS) schedule". At the bottom of the page, there is a call to action: "Sign up for Node.js Everywhere, the official Node.js Monthly Newsletter."

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

Check & install

The image shows a composite of two screenshots. On the left is a 'Command Prompt' window with the following text:

```
C:\Users\Gebruiker>node --version  
v12.4.0
```

The command `node --version` is highlighted with a red rectangle, and a red arrow points from this rectangle to the Node.js download page on the right.

On the right is a screenshot of the Node.js website's 'Downloads' section. The page has a dark header with the Node.js logo and navigation links: HOME, ABOUT, DOWNLOADS, DOCS, GET INVOLVED, SECURITY, CERTIFICATION, and NEWS. Below the header is a section titled 'Downloads' with the text: 'Latest LTS Version: 12.18.2 (includes npm 6.14.5)'. It says 'Download the Node.js source code or a pre-built installer for your platform, and start developing today.' There are two tabs at the top of this section: 'LTS' (which is green and selected) and 'Current' (which is light green). Under the 'LTS' tab, there are three download options: 'Windows Installer' (with icon), 'macOS Installer' (with icon), and 'Source Code' (with icon). Below these are lists of other download options:

LTS	Current	
Windows Installer (.msi)	32-bit	64-bit
Windows Binary (.zip)	32-bit	64-bit
macOS Installer (.pkg)	64-bit	
macOS Binary (.tar.gz)	64-bit	
Linux Binaries (x64)	64-bit	
Linux Binaries (ARM)	ARMv7	ARMv8
Source Code	node-v12.18.2.tar.gz	

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

NPM

Command Prompt

```
C:\Users\Gebruiker>npm --version
6.14.1
```

C:\Users\Gebruiker>

docs home contact support npm.community npmjs.com

CLI documentation > CLI commands

- > [access](#) Set access level on published packages
- > [adduser](#) Add a registry user account
- > [audit](#) Run a security audit
- > [bin](#) Display npm bin folder
- > [bugs](#) Bugs for a package in a web browser maybe
- > [build](#) Build a package
- > [bundle](#) REMOVED
- > [cache](#) Manipulates packages cache
- > [ci](#) Install a project with a clean slate
- > [completion](#) Tab Completion for npm
- > [config](#) Manage the npm configuration files
- > [dedupe](#) Reduce duplication
- > [deprecate](#) Deprecate a version of a package
- > [dist-tag](#) Modify package distribution tags
- > [docs](#) Docs for a package in a web browser maybe
- > [doctor](#) Check your environments
- > [edit](#) Edit an installed package
- > [explore](#) Browse an installed package
- > [help-search](#) Search npm help documentation

<https://docs.npmjs.com/cli-documentation/cli>



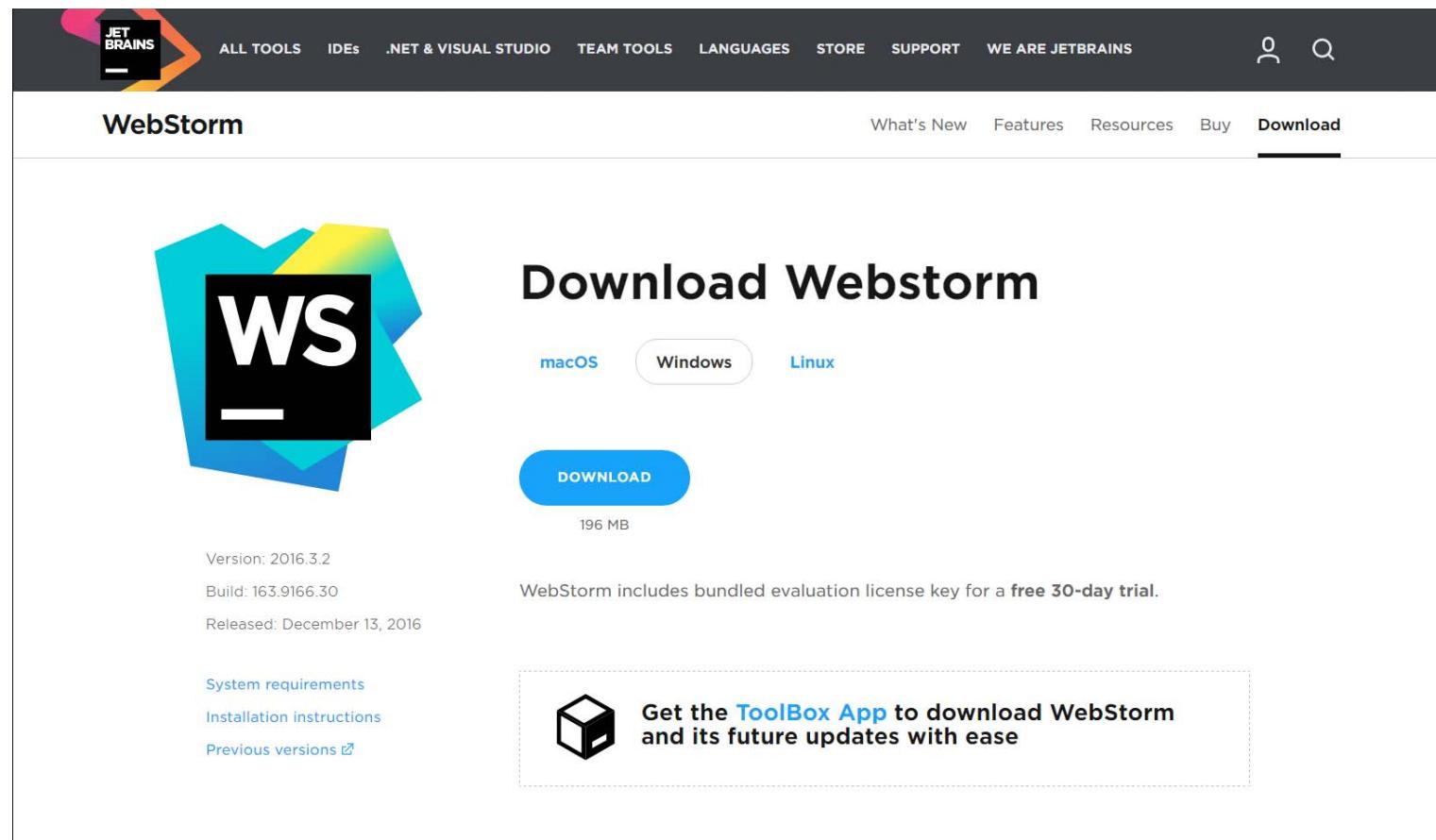
Editors

Where do you write your code?

WebStorm

30-day trial – not free after that period.

But you're very productive, very fast!

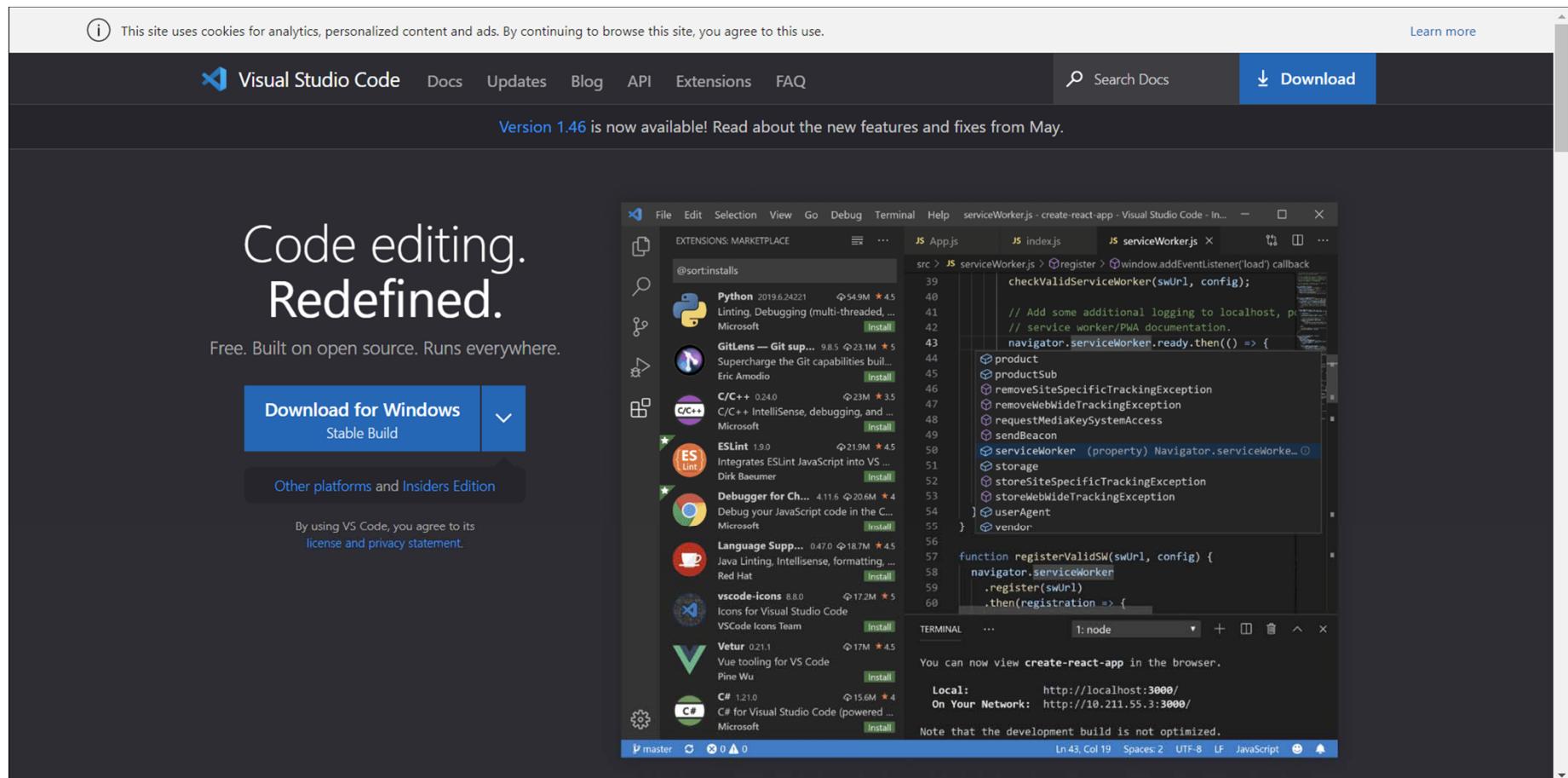


The screenshot shows the official download page for WebStorm on the JetBrain website. At the top, there's a navigation bar with links for 'ALL TOOLS', 'IDEs', '.NET & VISUAL STUDIO', 'TEAM TOOLS', 'LANGUAGES', 'STORE', 'SUPPORT', and 'WE ARE JETBRAINS'. On the right side of the bar are icons for user profile (0) and search. Below the navigation, the page title 'WebStorm' is displayed, along with tabs for 'What's New', 'Features', 'Resources', 'Buy', and 'Download'. The 'Download' tab is currently selected. To the left of the main content area is a large icon featuring the letters 'WS' inside a stylized blue and yellow geometric shape. To the right of the icon, the text 'Download Webstorm' is prominently displayed. Below this, there are three download options: 'macOS', 'Windows' (which is highlighted in a button-like style), and 'Linux'. A large blue 'DOWNLOAD' button is centered below these options. To the right of the button, it says '196 MB'. Below the download section, there's a note: 'WebStorm includes bundled evaluation license key for a free 30-day trial.' At the bottom left, there are links for 'System requirements', 'Installation instructions', and 'Previous versions'. At the bottom right, there's a callout box containing the text 'Get the [ToolBox App](#) to download WebStorm and its future updates with ease' next to an icon of a cube.

www.jetbrains.com/webstorm/download/

Visual Studio Code

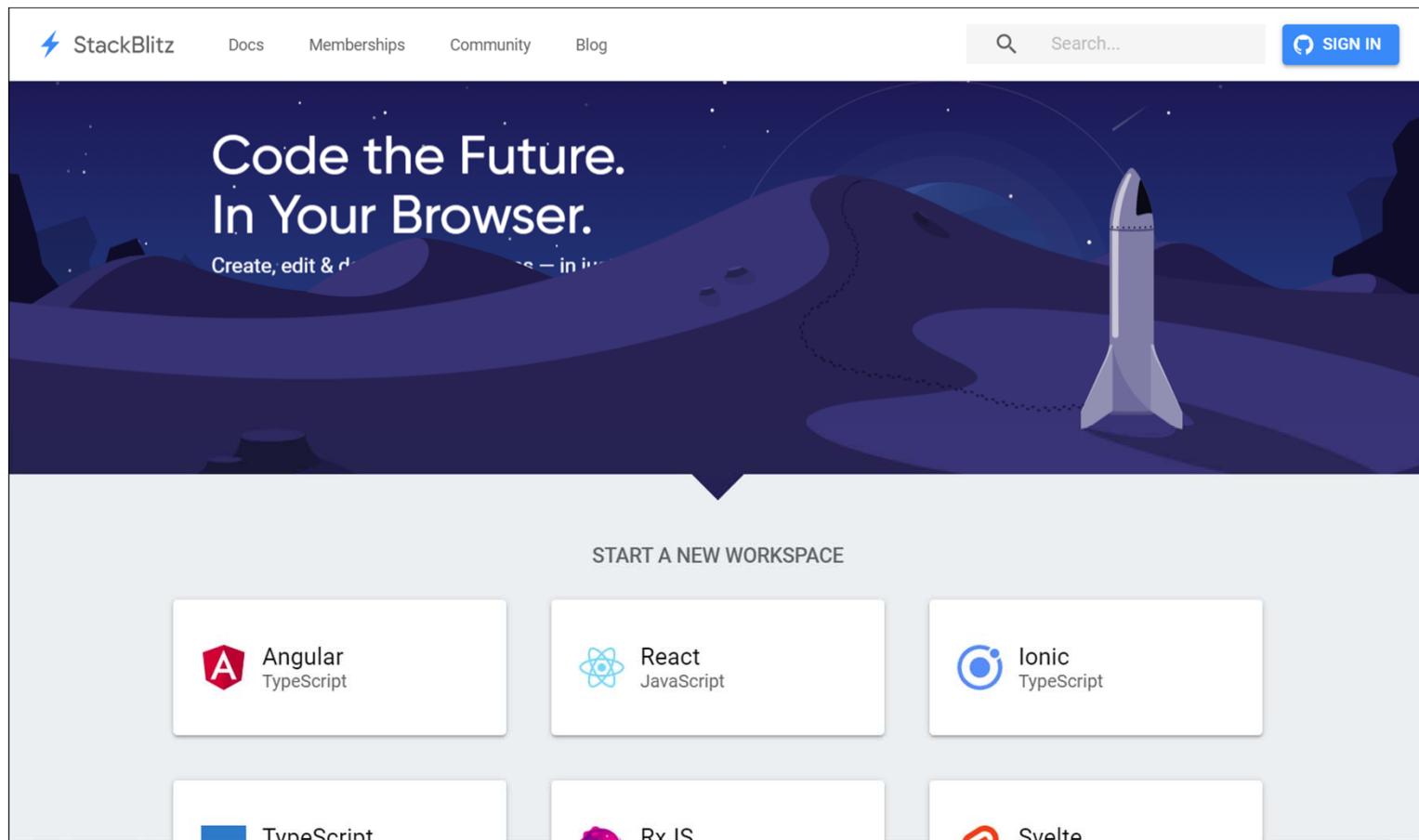
- Free alternative – very popular!
- Lots of extensions available



code.visualstudio.com/download

StackBlitz

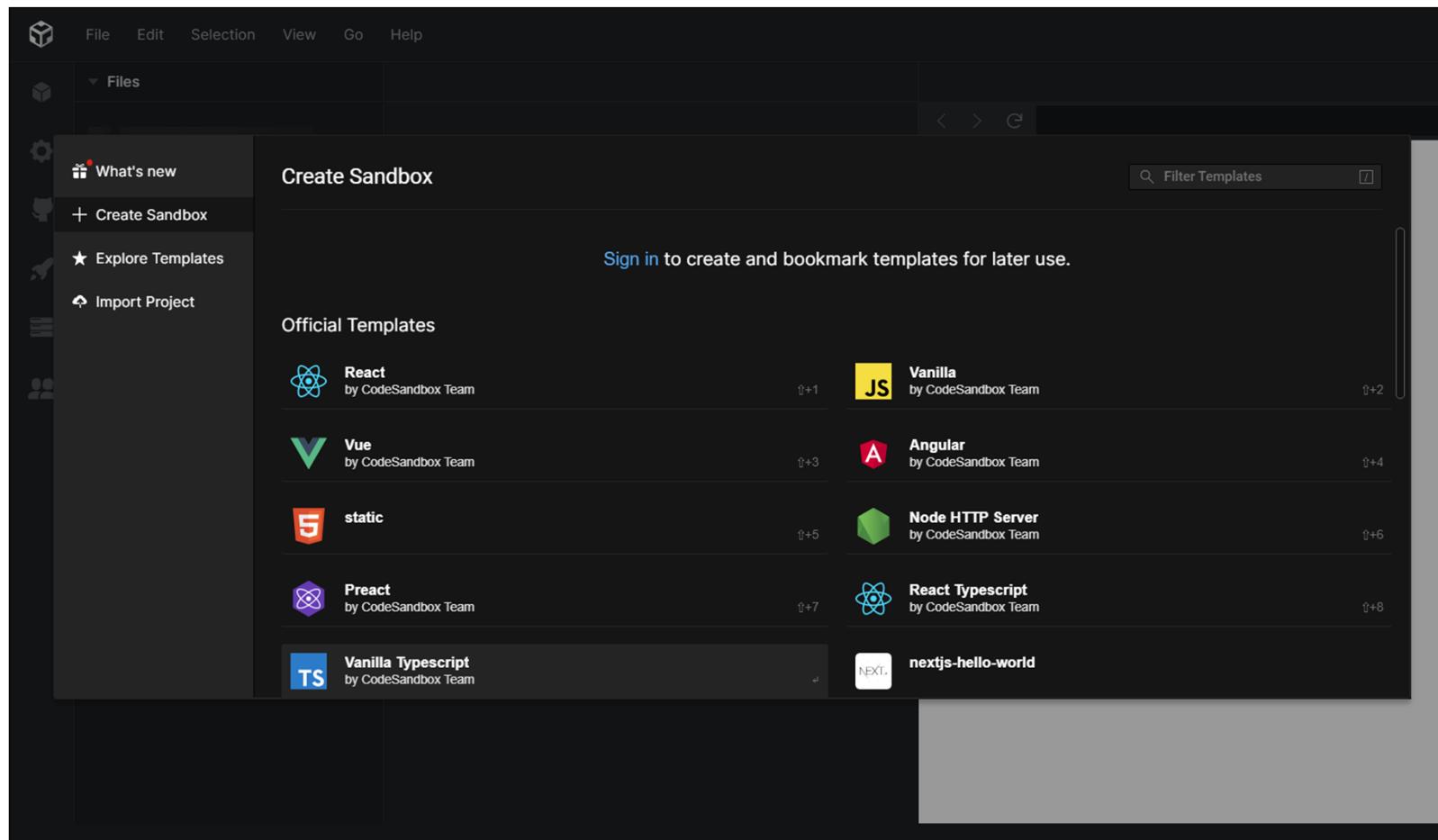
- Online editor, code in the browser – no installation necessary
- Lots of frameworks: Angular, React, Ionic, and more



<https://stackblitz.com/>

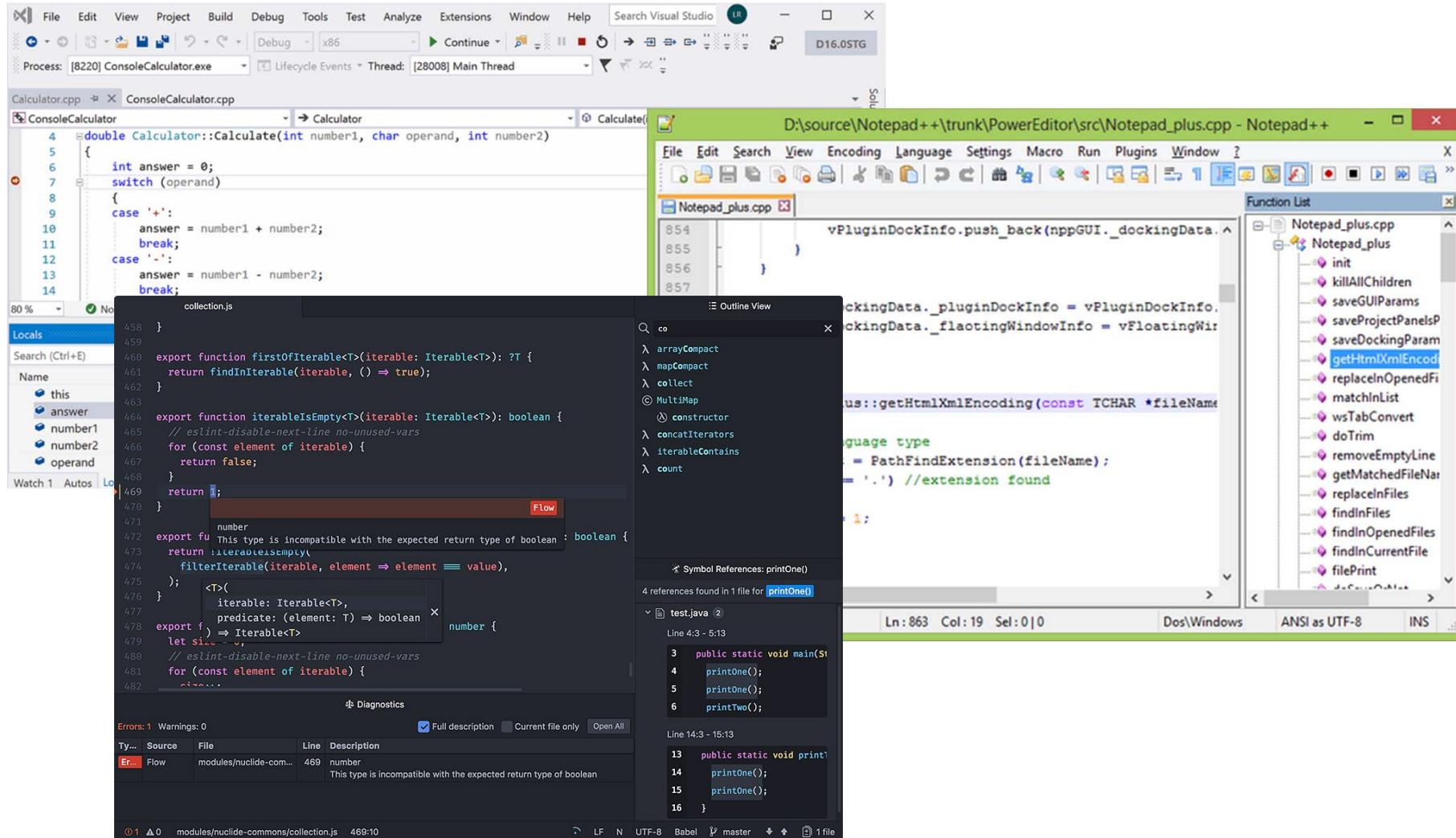
CodeSandbox

- Online editor – no installation necessary
- Based on VS Code, also with Angular, React, Ionic, and more



<https://codesandbox.io/s/>

Other options



Visual Studio, Notepad++, Atom, Sublime Text, Eclipse, IntelliJ, ...



Framework CLI tools

The Command Line Interface for frameworks

Framework CLI's

- Always – based on Node.js
- 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
```

Vue CLI

The screenshot shows the official website for Vue CLI 3. At the top, there is a navigation bar with the text "Vue CLI 3" and a search icon. To the right of the search icon are links for "Guide", "Config Reference", "Plugin Dev Guide", "Plugins", "Changelog", "Languages", and "GitHub". Below the navigation bar is a large, stylized green and dark blue "V" logo. Underneath the logo, the text "Vue CLI 3" is displayed in a large, bold, dark font. Below this, there is a subtitle "Standard Tooling for Vue.js Development" accompanied by a wrench and screwdriver icon. A green button at the bottom left contains the text "Get Started →". At the very bottom right of the page, the URL "cli.vuejs.org" is written in green.

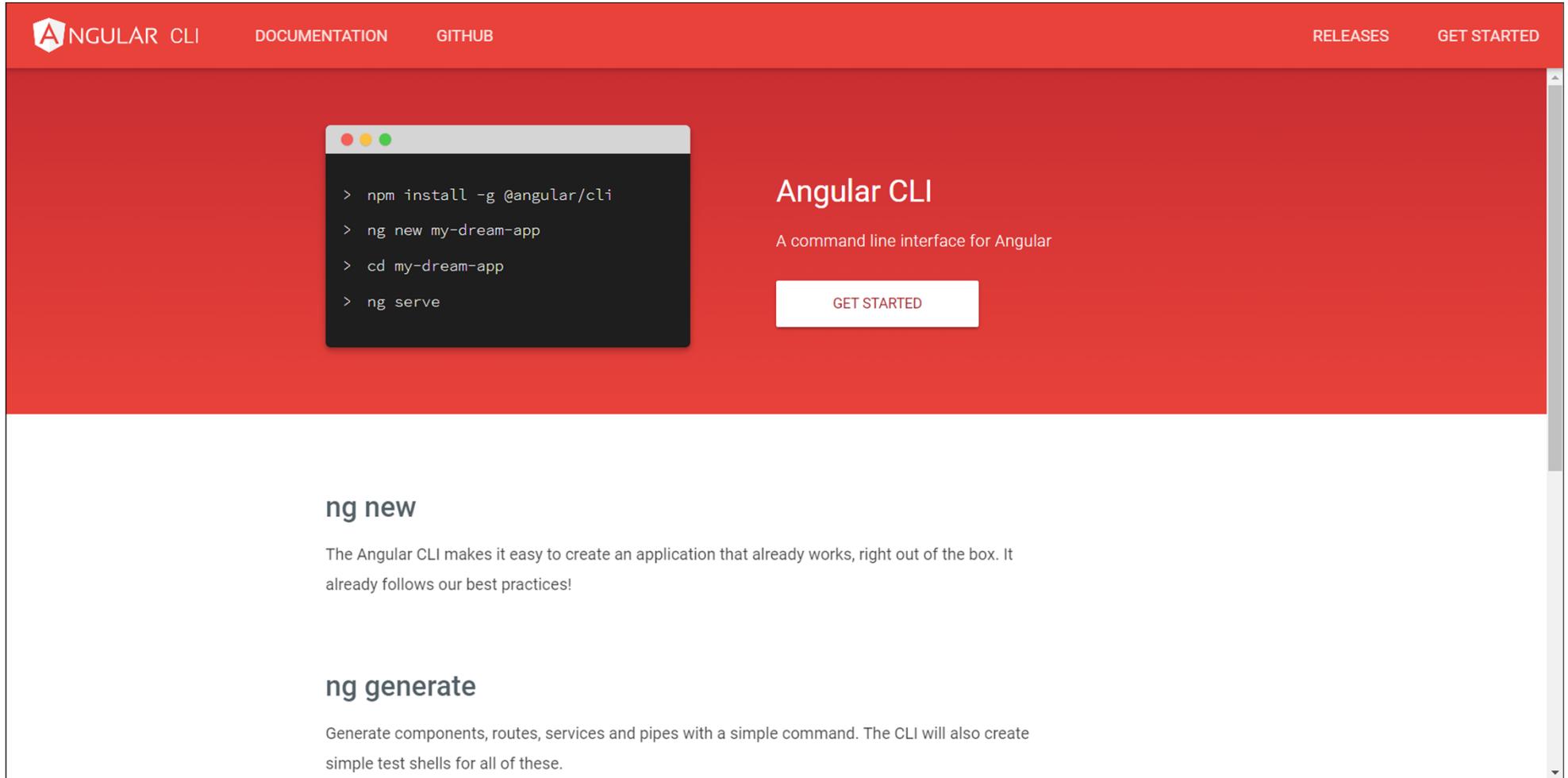
Vue CLI 3

Standard Tooling for Vue.js Development

Get Started →

cli.vuejs.org

Angular CLI



The screenshot shows the Angular CLI homepage with a red header bar. The header contains the Angular CLI logo, navigation links for DOCUMENTATION and GITHUB, and buttons for RELEASES and GET STARTED.

The main content area features a dark-themed terminal window showing command-line instructions:

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

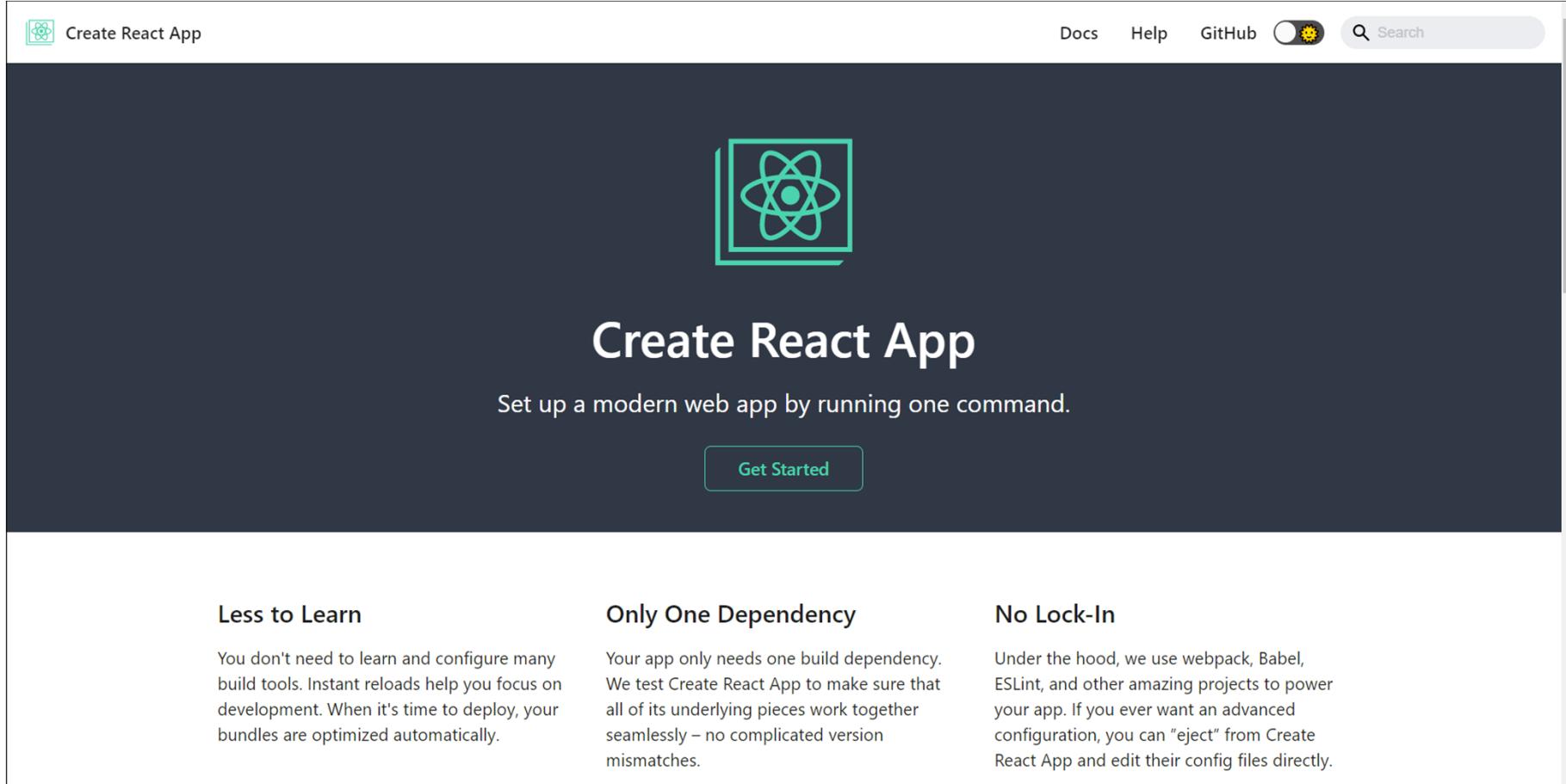
To the right of the terminal window, the text "Angular CLI" is displayed in large white font, followed by a subtitle "A command line interface for Angular" and a "GET STARTED" button.

Below the terminal window, there are two sections:

- 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.

cli.angular.io

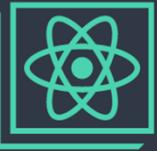
React CLI



The screenshot shows the official website for Create React App. At the top, there's a navigation bar with links for 'Docs', 'Help', 'GitHub' (with a toggle switch), and a search bar. The main content area features a large teal atom icon above the text 'Create React App'. Below it is a subtext: 'Set up a modern web app by running one command.' A prominent 'Get Started' button is centered. The bottom section is divided into three columns: 'Less to Learn', 'Only One Dependency', and 'No Lock-In', each with descriptive text.

Create React App

Docs Help GitHub Search



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.

create-react-app.dev

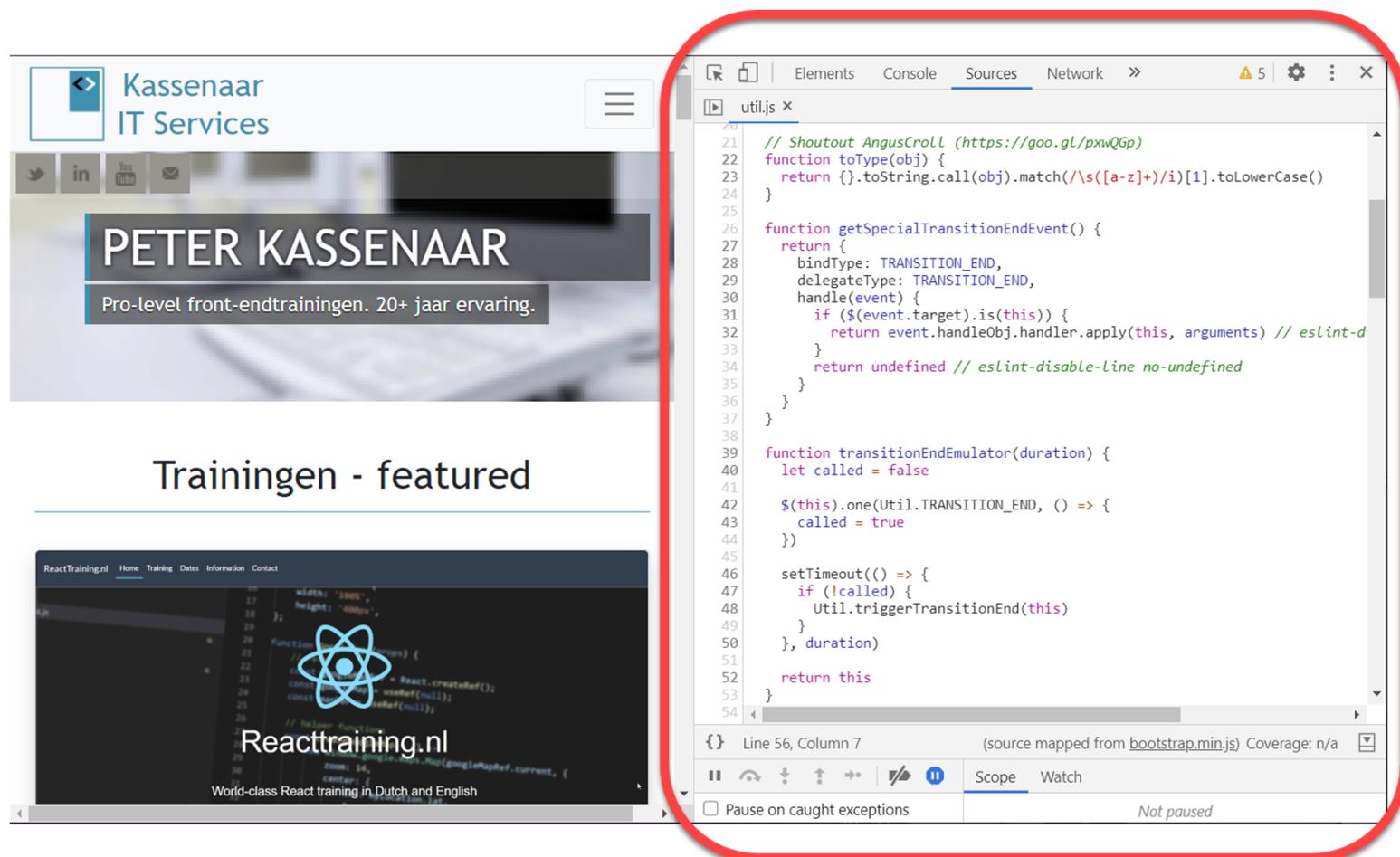


Framework DevTools

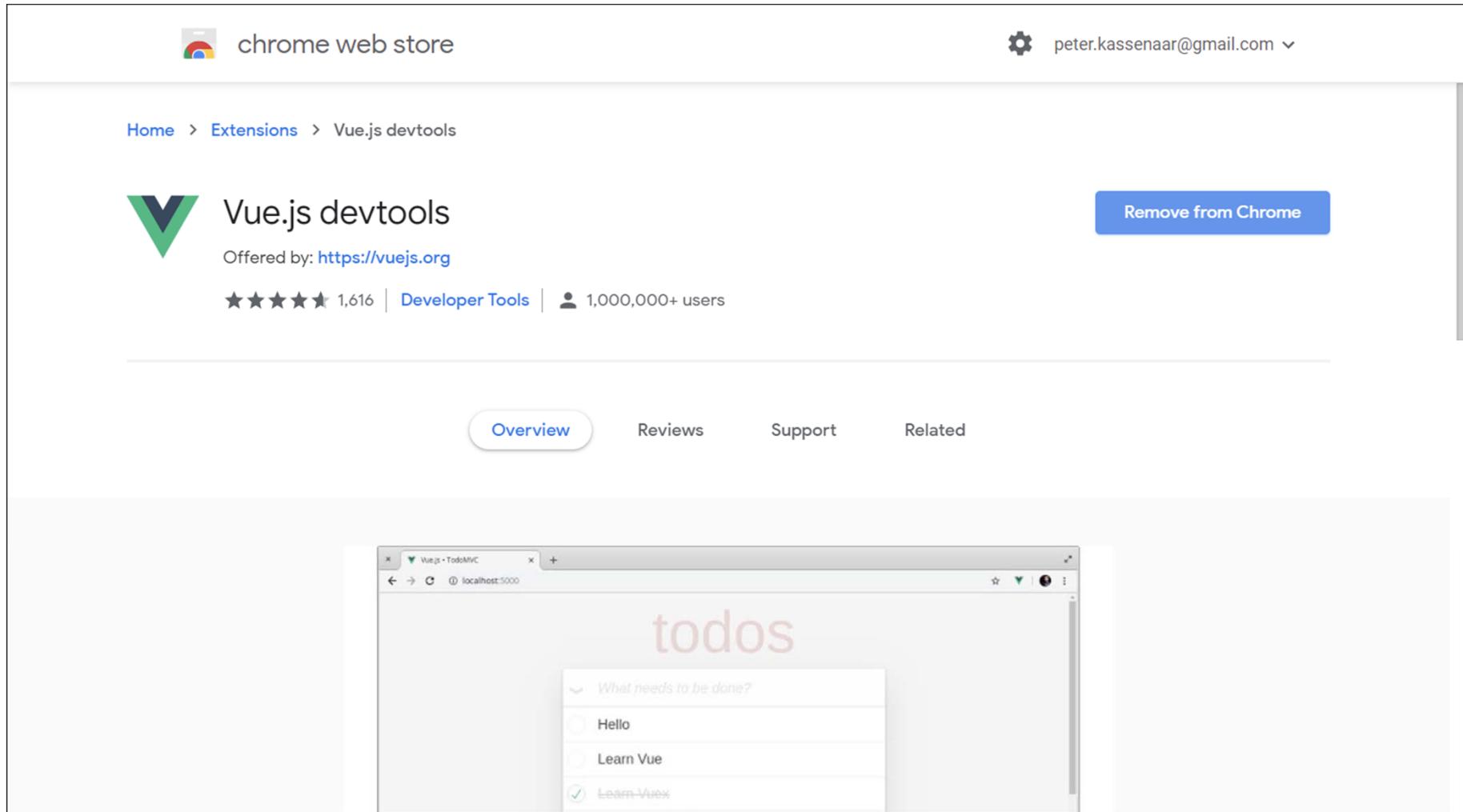
Debugging your applications in the browser

Debugging tools

- Debugging in the browser: F12, or rightclick, Inspect Element
- Use the tabs Elements, Console and Sources

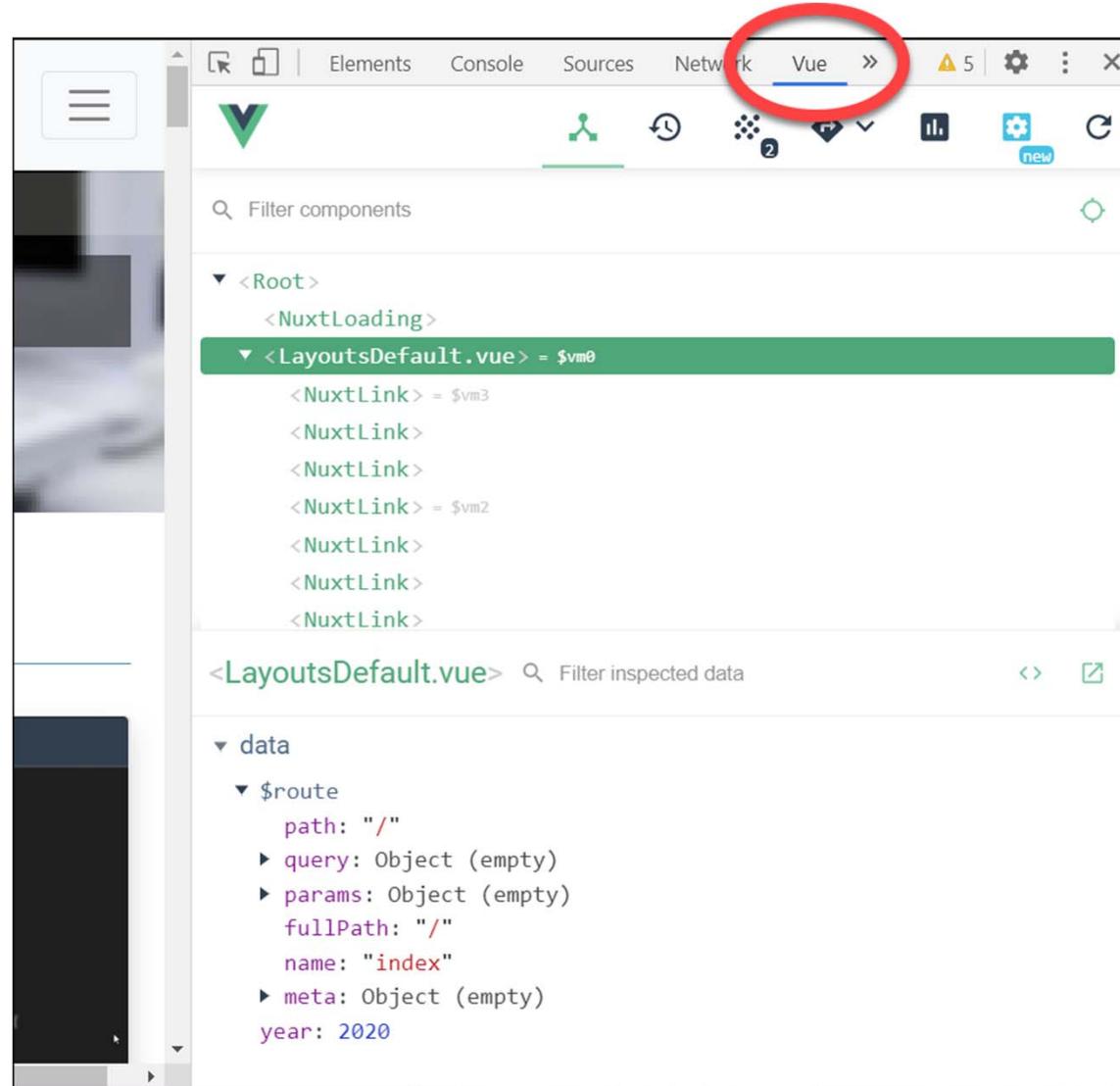


Chrome Extensions: Vue Devtools



Extra tab in Chrome Devtools, inspect Vue project

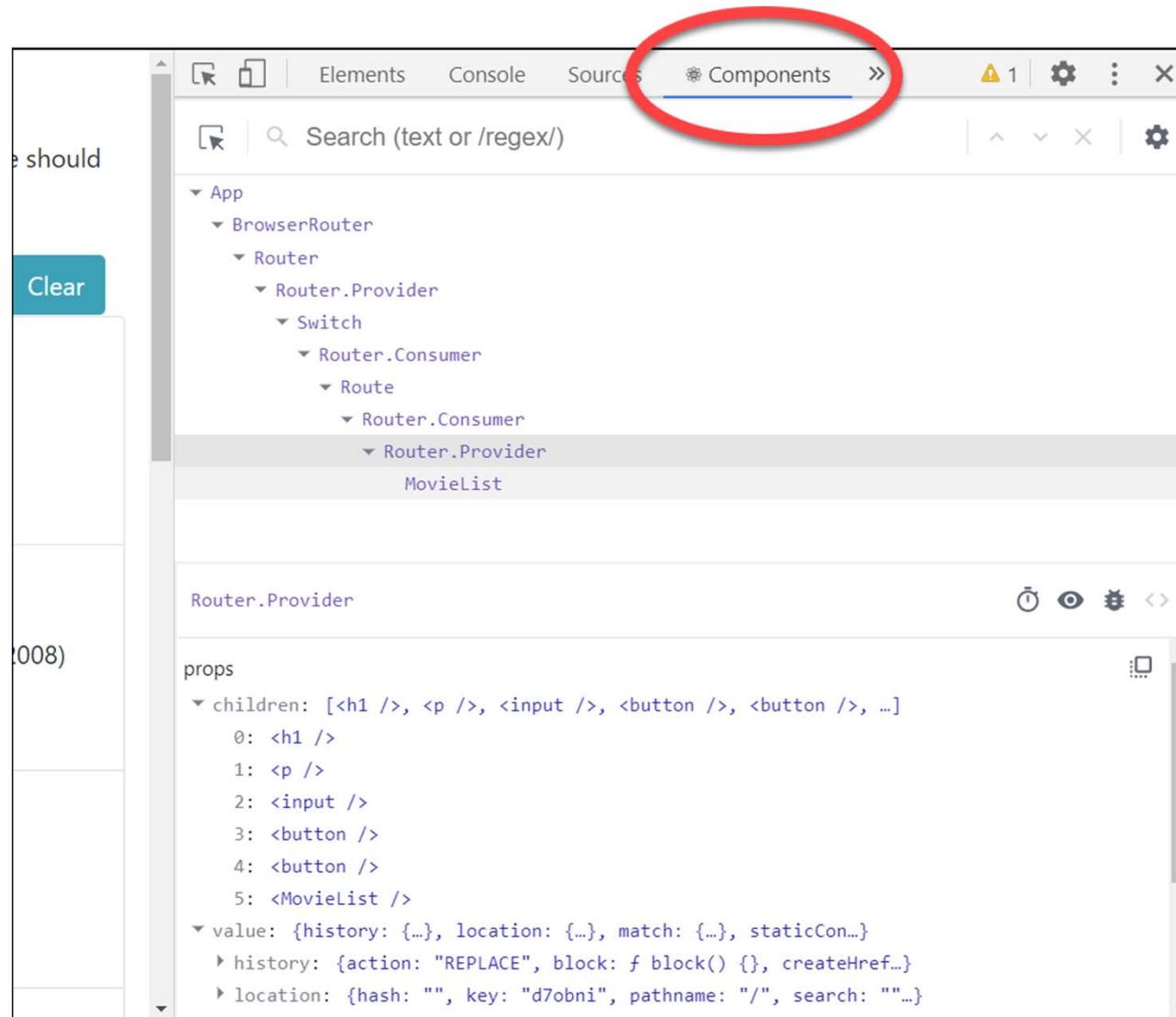
Using Vue Devtools



React Developer Tools

The screenshot shows the Chrome Web Store page for the "React Developer Tools" extension. At the top, there's a header with the Chrome logo and "chrome web store" text, followed by a user profile icon and "peter.kassenaar@gmail.com". Below the header, the navigation path is "Home > Extensions > React Developer Tools". The main section features the extension's icon (a blue atom symbol), its name "React Developer Tools", and the offerer "Offered by: Facebook". It also displays a rating of "★★★★★ 1,256 | Developer Tools | 2,000,000+ users". To the right is a blue "Remove from Chrome" button. Below this, there are tabs for "Overview" (which is selected), "Reviews", "Support", and "Related". A large preview window shows a "todos" application running in a browser with the React DevTools component highlighted. The bottom of the preview shows the standard Chrome DevTools interface with tabs like Elements, Sources, and Components.

Using React Developer Tools



Angular DevTools

≡ ANGULAR FEATURES DOCS RESOURCES EVENTS BLOG Search 

- Introduction
- Getting Started
- Understanding Angular
- Developer guides
- Best Practices
- Angular Tools
 - Dev Workflow
 - CLI Builders
 - Language Service
 - DevTools
 - Schematics
 - Tutorials
 - Release Information
 - Reference
- stable (v13.1.3)

DevTools Overview

Angular DevTools is a Chrome extension that provides debugging and profiling capabilities for Angular applications. Angular DevTools supports Angular v9 and later, with Ivy enabled.



You can find Angular DevTools in the [Chrome Web Store](#).

After installing Angular DevTools, find the extension under the Angular tab in Chrome DevTools.



- **DevTools Overview**
- Bug reports
- Debug your application
- Explore the application structure
- View properties
- Navigate to the host node
- Navigate to source
- Update property value
- Access selected component or directive in console
- Select a directive or component
- Profile your application
- Understand your application's execution
- Understand component execution
- Hierarchical views
- Debug OnPush
- Import recording

<https://angular.io/guide/devtools>

Using Angular DevTools

The screenshot shows a browser window displaying a study page for 'Angular Fundamentals'. On the left, there's a sidebar with tabs for 'Kickoff (Week)', 'Week 1', 'Week 2', 'Week 3', 'Week 4', and 'Week 5'. The main content area is titled 'Angular Fundamentals' and contains text about the study and a download link for the infoblad.

At the top, the browser address bar shows 'localhost:4200/lessons?studie=Angular%20Fundamentals&freePreview=true'. Below the address bar is the Angular DevTools interface. The 'Angular' tab is highlighted with a red box. The 'Components' tab is selected, showing a component tree and an '@Inputs' panel.

The component tree on the left shows the following structure:

- client-root
 - router-outlet[RouterOutlet]
 - client-lessons
 - client-lesson-tree == \$ng0
 - client-lesson-tree-detail
 - client-lesson-info
 - router-outlet[RouterOutlet]



More Tooling

Tools that are often installed alongside your framework of choice

Linting Tools

- Improving code quality
- “*lint, or a linter, is a tool that analyzes source code to flag programming errors, bugs, stylistic errors, and suspicious constructs.*”
- ESLint
- TSLint (now deprecated)
- CSSLint...

ESLint

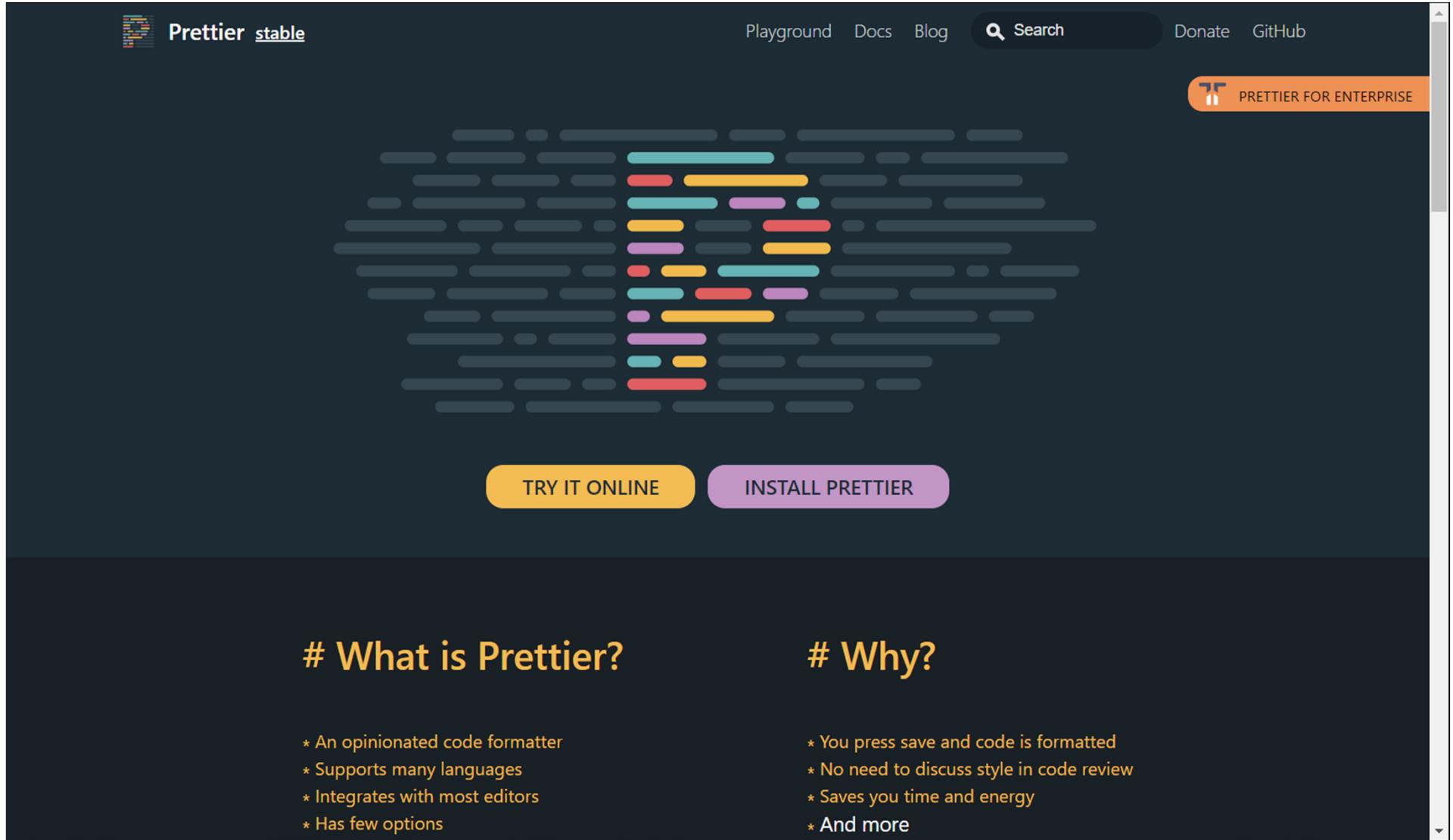
The screenshot shows the ESLint website's feature selection interface and its homepage. On the left, a terminal-like interface displays the following text:

```
? Please pick a preset: Manually select features
? Check the features needed for your project: (Press <space> to select, <a> to toggle all, <i>
(*) Babel
( ) TypeScript
( ) Progressive Web App (PWA) Support
( ) Router
( ) Vuex
( ) CSS Pre-processors
>(*) Linter / Formatter
( ) Unit Testing
( ) E2E Testing
```

The right side shows the ESLint homepage with a dark purple header featuring the ESLint logo, a search bar, and navigation links for User guide, Developer guide, Blog, Demo, and About. A banner at the top of the page reads "Black Lives Matter. Donate to the Equal Justice Initiative." Below the header, the word "ESLint" is prominently displayed in large white letters, followed by the tagline "Find and fix problems in your JavaScript code". A "Get Started" button is visible. The main content area is divided into three sections: "Find Problems", "Fix Automatically", and "Customize", each with descriptive text and icons.

<https://eslint.org/>

Prettier



The screenshot shows the official Prettier website. At the top, there's a dark header bar with the Prettier logo (a colorful bar icon) and the word "stable". To the right are links for "Playground", "Docs", "Blog", a search bar with the placeholder "Search", "Donate", and "GitHub". Below the header is a large, abstract graphic composed of many horizontal bars in various colors (teal, yellow, pink, purple) on a dark background. In the center of this graphic are two buttons: "TRY IT ONLINE" (yellow) and "INSTALL PRETTIER" (purple). Below the graphic, the page has a dark background with white text. On the left, under the heading "# What is Prettier?", there's a bulleted list: "An opinionated code formatter", "Supports many languages", "Integrates with most editors", and "Has few options". On the right, under the heading "# Why?", there's another bulleted list: "You press save and code is formatted", "No need to discuss style in code review", "Saves you time and energy", and "And more". At the bottom right, there's a green link: <https://prettier.io/>.

What is Prettier?

- * An opinionated code formatter
- * Supports many languages
- * Integrates with most editors
- * Has few options

Why?

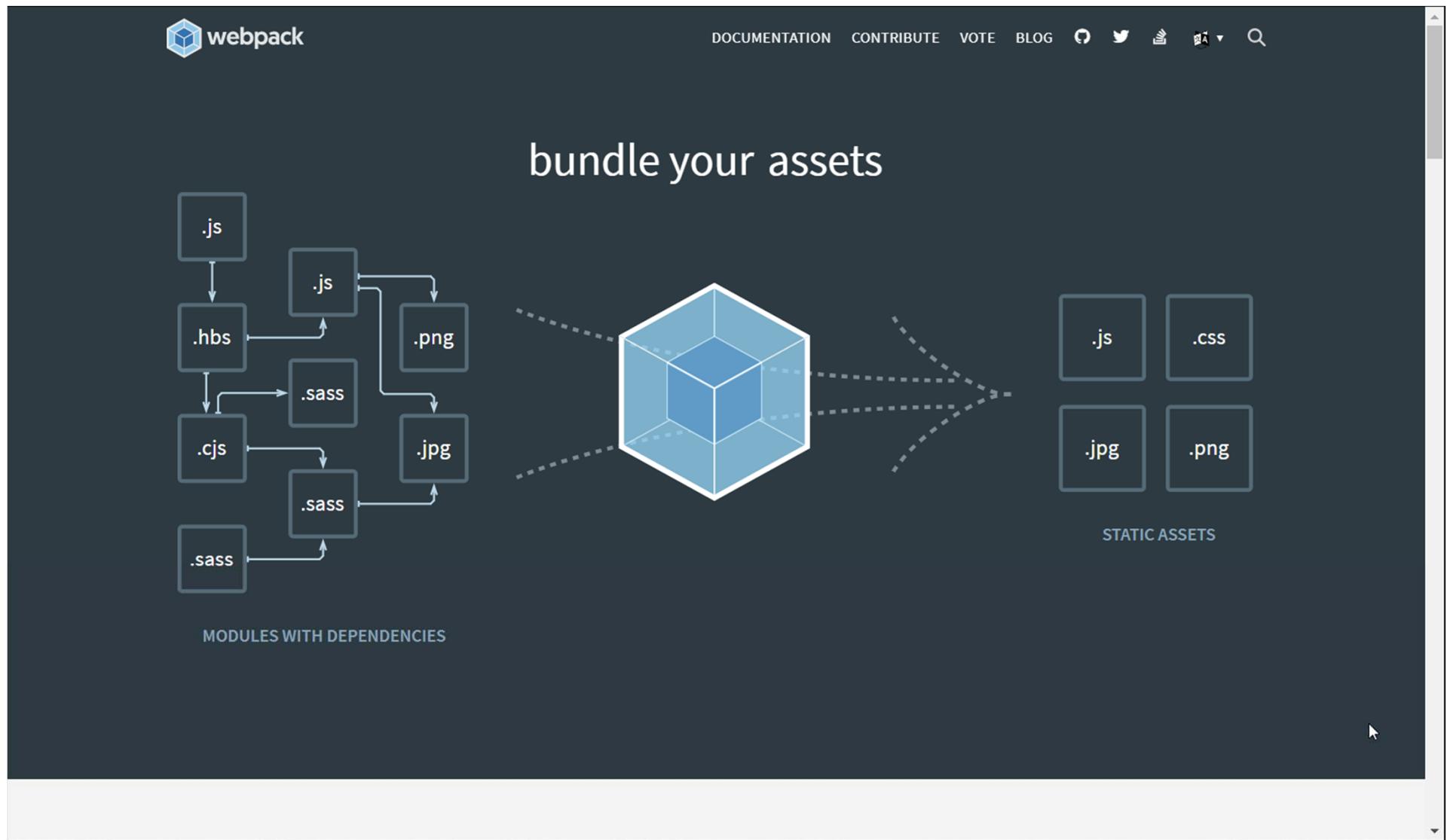
- * You press save and code is formatted
- * No need to discuss style in code review
- * Saves you time and energy
- * And more

<https://prettier.io/>

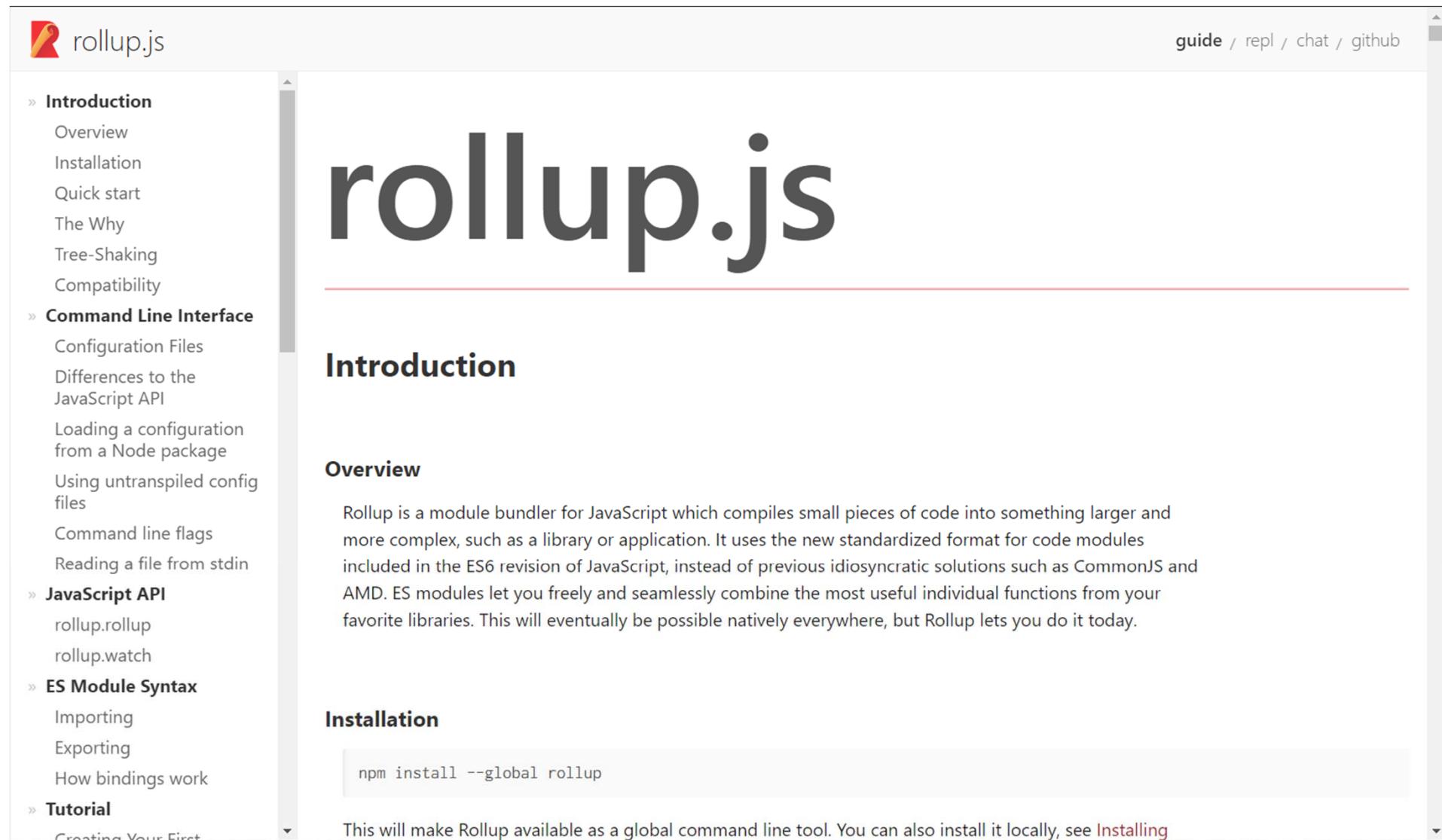
Small Demo



Bundling Tools



rollup.js



The screenshot shows the official rollup.js documentation page. At the top left is the rollup.js logo (a stylized orange 'R'). To its right are links for 'guide', 'repl', 'chat', and 'github'. On the far right is a vertical scrollbar.

The main content area features a large, bold title 'rollup.js' centered above a horizontal red line. To the left of the title is a sidebar containing navigation links:

- » **Introduction**
 - Overview
 - Installation
 - Quick start
 - The Why
 - Tree-Shaking
 - Compatibility
- » **Command Line Interface**
 - Configuration Files
 - Differences to the JavaScript API
 - Loading a configuration from a Node package
 - Using untranspiled config files
 - Command line flags
 - Reading a file from stdin
- » **JavaScript API**
 - rollup.rollup
 - rollup.watch
- » **ES Module Syntax**
 - Importing
 - Exporting
 - How bindings work
- » **Tutorial**
 - Creating Your First

Introduction

Overview

Rollup is a module bundler for JavaScript which compiles small pieces of code into something larger and more complex, such as a library or application. It uses the new standardized format for code modules included in the ES6 revision of JavaScript, instead of previous idiosyncratic solutions such as CommonJS and AMD. ES modules let you freely and seamlessly combine the most useful individual functions from your favorite libraries. This will eventually be possible natively everywhere, but Rollup lets you do it today.

Installation

```
npm install --global rollup
```

This will make Rollup available as a global command line tool. You can also install it locally, see [Installing](#)

Parcel

Note: This page covers Parcel 1, the documentation for Parcel 2 is being worked on here: v2.parceljs.org

 PARCEL

Search... English GitHub 🛍 Store

GETTING STARTED

-  Getting Started
-  Assets
-  Transforms
-  Debugging

FEATURES

-  Code Splitting
-  Hot Module Replacement
-  Production
-  CLI
-  Recipes
-  Environment Variables
-  Module Resolution

ASSET TYPES

-  JavaScript
-  ReasonML



Getting Started

Parcel is a web application bundler, differentiated by its developer experience. It offers blazing fast performance utilizing multicore processing, and requires zero configuration.

First install Parcel using Yarn or npm:

Yarn:

```
yarn global add parcel-bundler
```

npm:

```
npm install -g parcel-bundler
```

Create a package.json file in your project directory using:

```
yarn init -y
```

or

```
npm init -y
```

Parcel can take any type of file as an entry point, but an HTML or JavaScript file is a good place to start. If you link your main JavaScript file in the HTML using a relative path, Parcel will also automatically find and unroll the references with a build to the output file

<https://parceljs.org/>



Transpiling tools

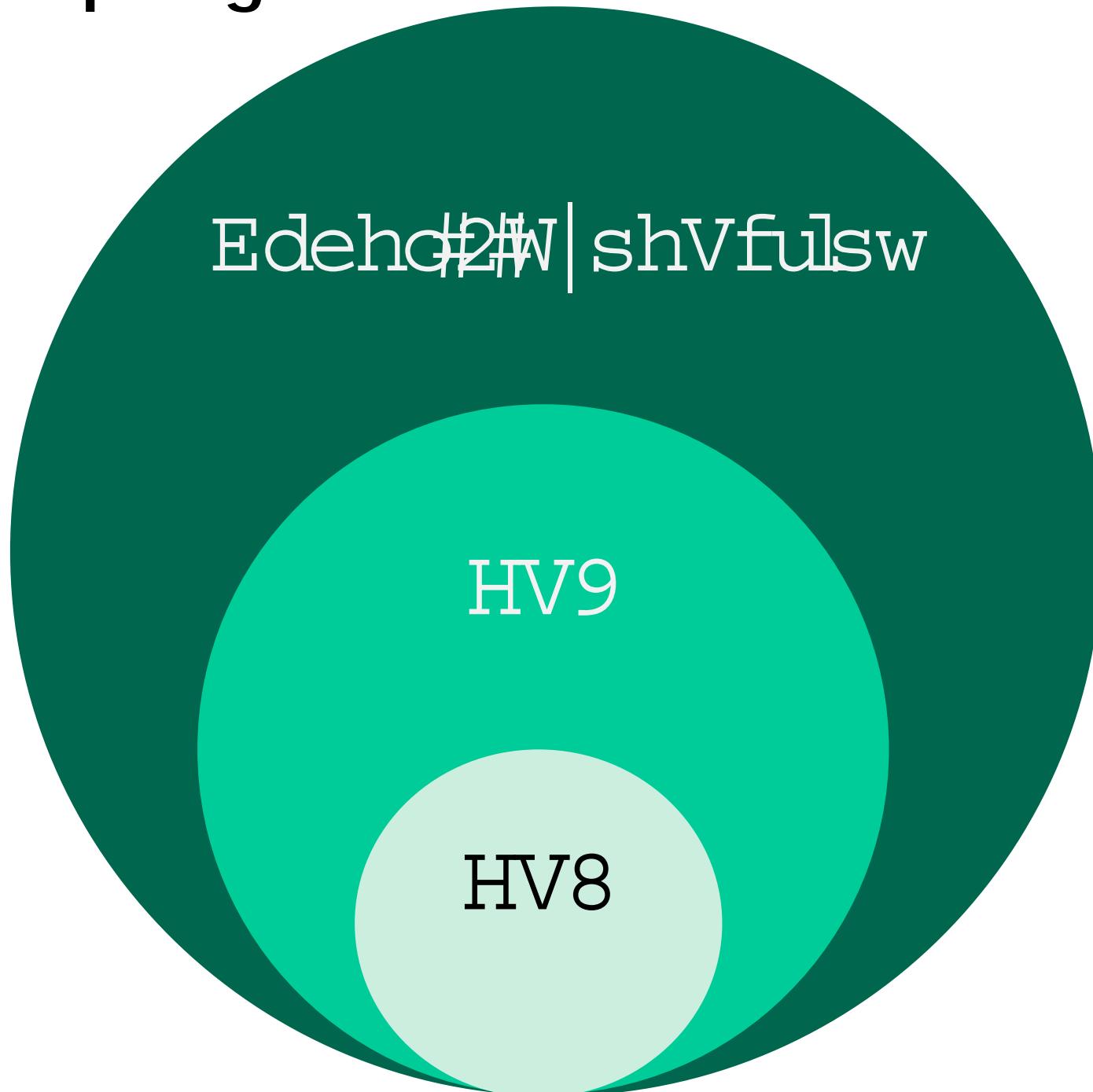
Moderne code omzetten naar 'oldskool' code en Type Safety

Transpiling – Babel and TypeScript

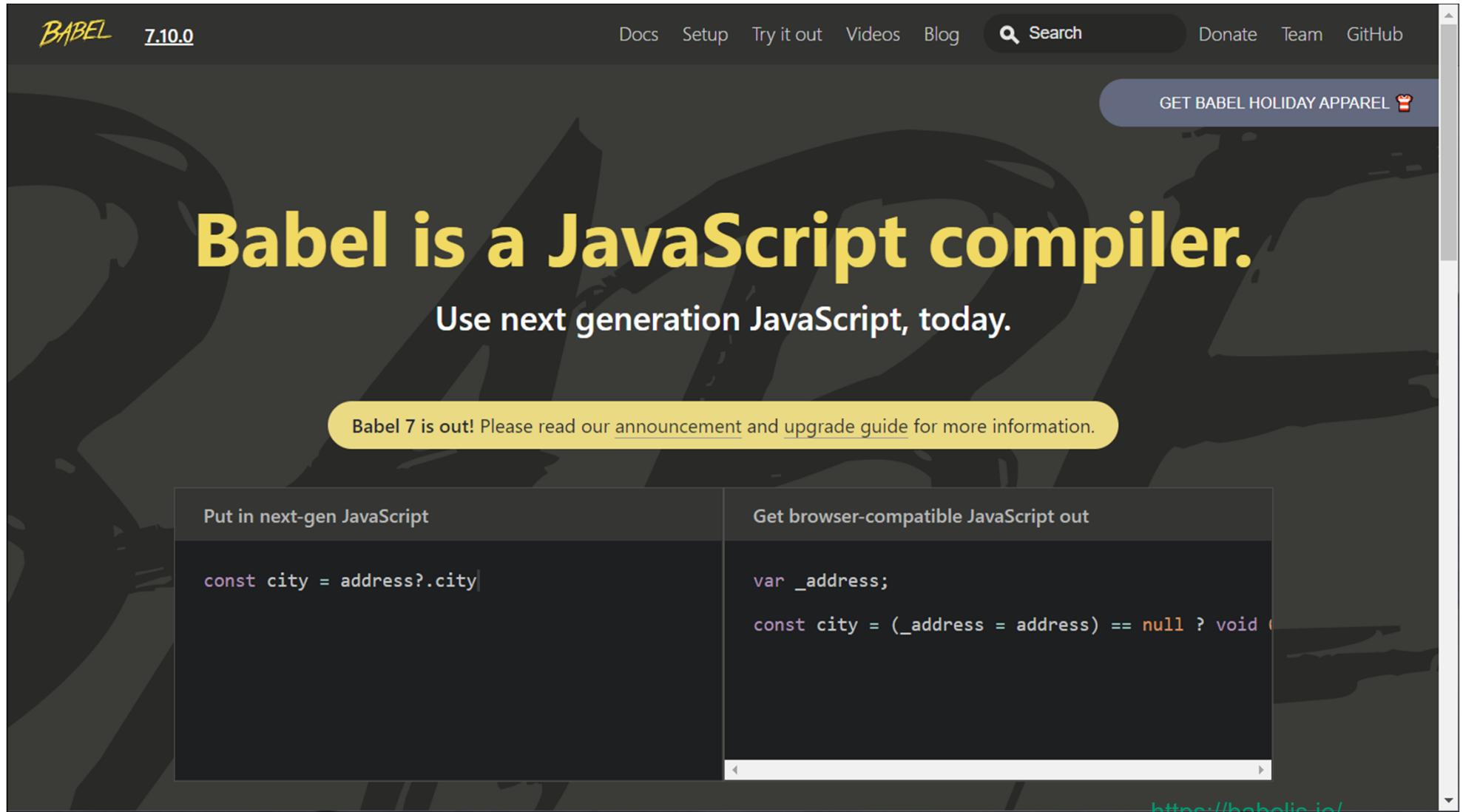
BABEL



On transpiling



Babel



The screenshot shows the Babel website homepage. At the top, there is a dark header bar with the Babel logo and version 7.10.0, followed by navigation links for Docs, Setup, Try it out, Videos, and Blog, a search bar, and links for Donate, Team, and GitHub. A call-to-action button for "GET BABEL HOLIDAY APPAREL" is also present. The main title "Babel is a JavaScript compiler." is displayed in large yellow text, with the subtitle "Use next generation JavaScript, today." below it. A yellow callout box contains the message "Babel 7 is out! Please read our [announcement](#) and [upgrade guide](#) for more information." Below this, two code snippets demonstrate Babel's transformation: one showing ES6 syntax like `const city = address?.city` being converted to browser-compatible code using a temporary variable.

BABEL 7.10.0

Docs Setup Try it out Videos Blog Search

Donate Team GitHub

GET BABEL HOLIDAY APPAREL 🎅

Babel is a JavaScript compiler.

Use next generation JavaScript, today.

Babel 7 is out! Please read our [announcement](#) and [upgrade guide](#) for more information.

Put in next-gen JavaScript	Get browser-compatible JavaScript out
<pre>const city = address?.city</pre>	<pre>var _address; const city = (_address = address) == null ? void 0 : _address.city</pre>

<https://babeljs.io/>

TypeScript

The screenshot shows the official TypeScript website. At the top, there's a blue header bar with the "TypeScript" logo and navigation links for "Download", "Docs", "Handbook", "Community", "Playground", and "Tools". To the right is a search bar labeled "Search Docs". Below the header, a red banner contains the text: "Note: we are testing out the new v2 site over the weekend, if we have missed something you rely on please file issues on [microsoft/TypeScript-Website](#)".

The main content area features a large dark blue sidebar on the left with white text. It includes the title "Typed JavaScript at Any Scale.", a subtitle "TypeScript extends JavaScript by adding types.", a paragraph about TypeScript saving time by catching errors, and a note that it runs in any browser, OS, and is open source.

The main content area has a dark background with a central white code editor window. The code editor shows a snippet of TypeScript:

```
const user = {  
    firstName: "Angela",  
    lastName: "Davis",  
    role: "Professor"  
}  
  
console.log(user.name)
```

A red error message highlights the line `console.log(user.name)` with the text: "Property 'name' does not exist on type '{ firstName: string; lastName: string; role: string; }'".

Below the code editor, a blue button says "TypeScript validates your JavaScript ahead of time" and a "Next" button with a right-pointing arrow.

At the bottom of the page, a dark footer bar contains the text "TypeScript 3.9 is now available, 4.0 is currently in beta." and two buttons: "Try in your browser" and "Install locally".

In the bottom right corner, the question "What is TypeScript?" is followed by a link: <https://www.typescriptlang.org/>.

TypeScript in frameworks

- TypeScript adds a **typing system** to JavaScript
- TypeScript compiles to **plain JavaScript** – and catches errors upfront
- **Angular** – mandatory
- **Vue** – opt-in
- **React** – opt-in



I DE Extensions

Enhance your editor with the extention and plug-ins you need

IDE Extensions for VS Code

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Visual Studio Visual Studio Code Azure DevOps Subscriptions Build your own Publish extensions

Extensions for the Visual Studio family of products

Search Visual Studio Code extensions 

Featured

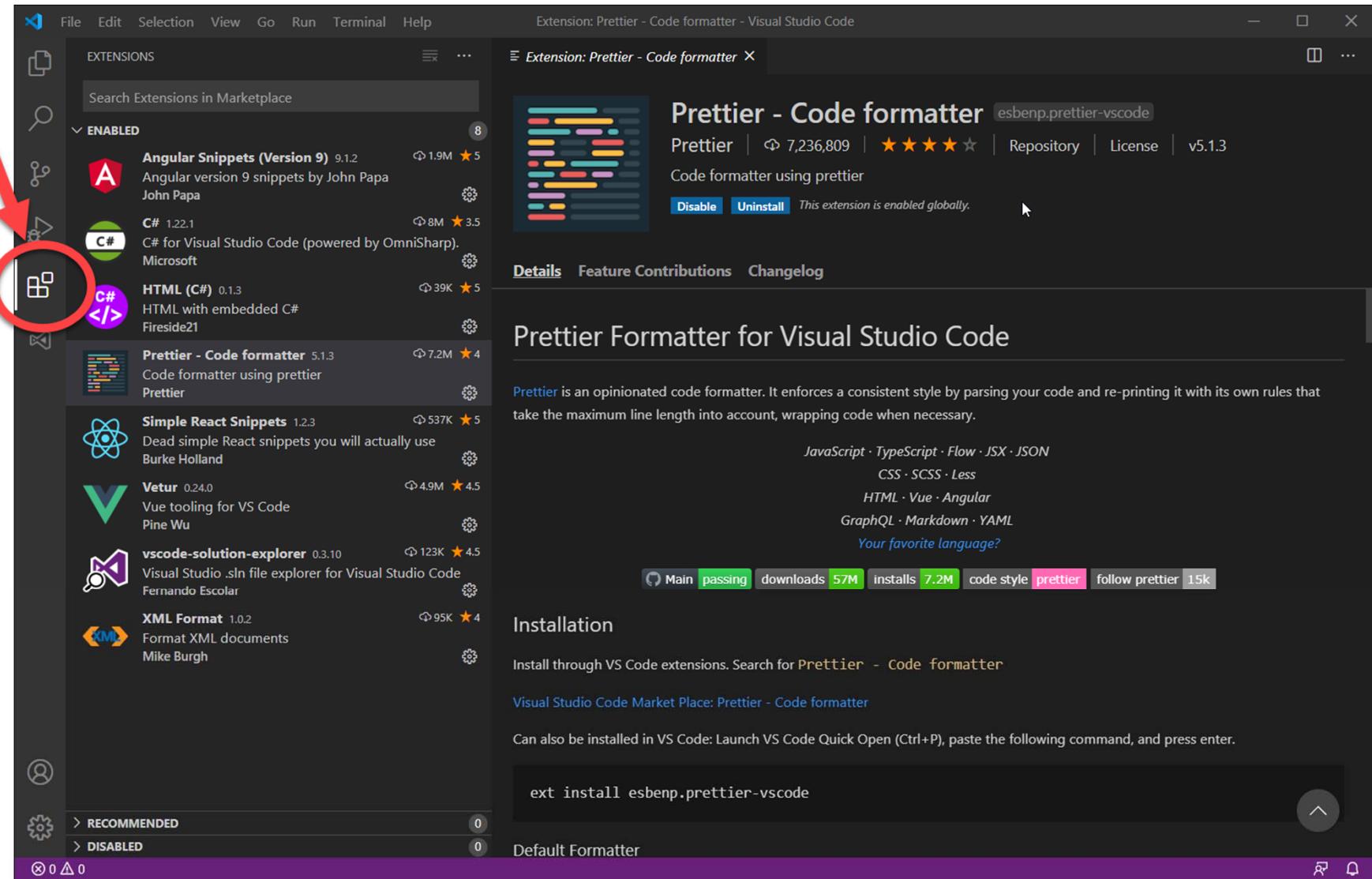
 Formatting Toggle tombonniike  347K FREE	 Browser Preview Kenneth Auchenber  232K FREE	 Better Align wwm  141K FREE	 GitHub Theme GitHub  47.8K FREE	 Deno denoland  20.3K FREE	 Azure Static Web App Microsoft  1.2K FREE
---	---	---	--	--	--

Trending this week

 OpenCV Snippets	 Caché Relationship Cr	 Pylance	 Document This	 Which Key	 Flutter Preview
--	--	---	--	--	--

<https://marketplace.visualstudio.com/vscode>

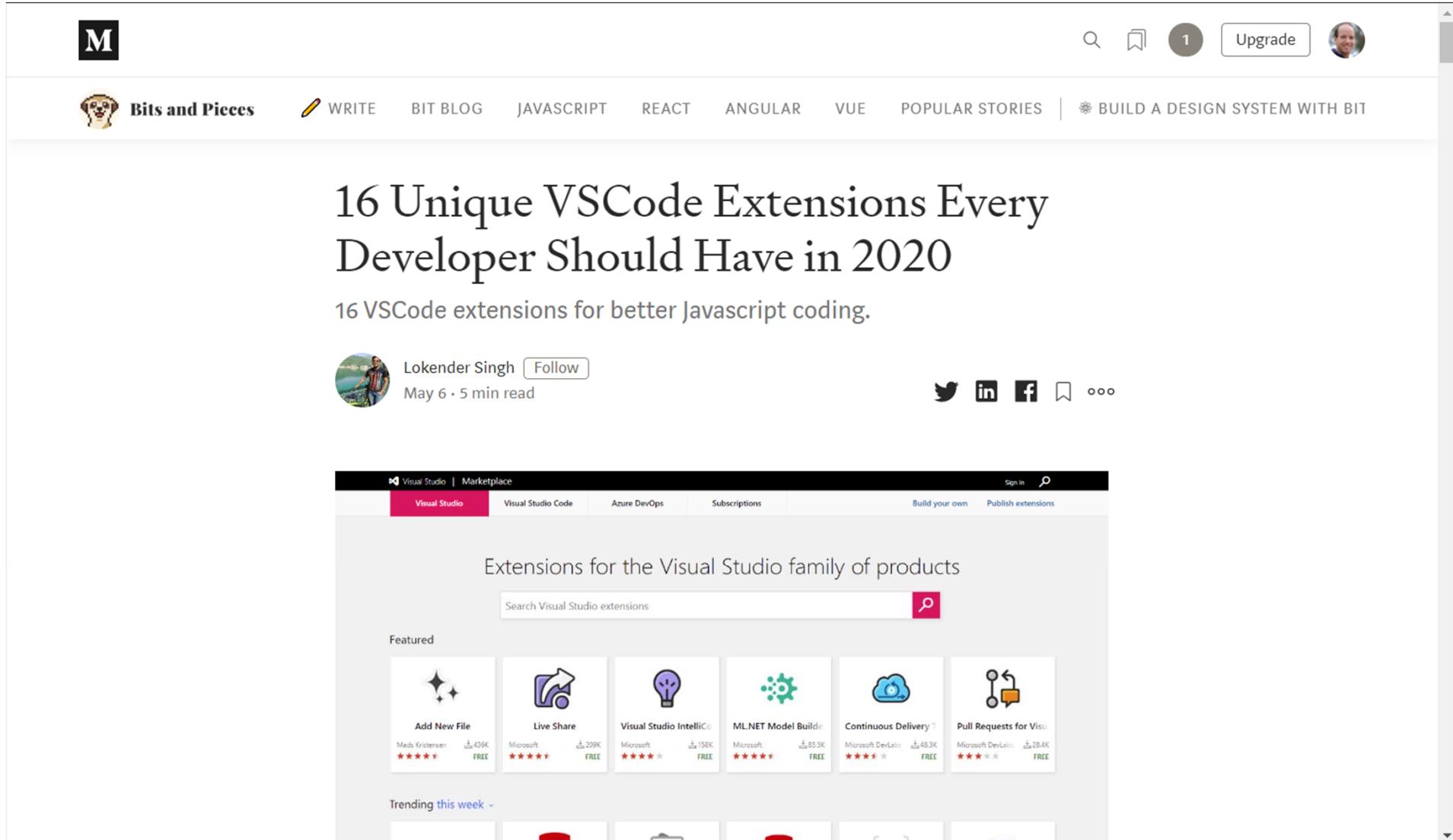
Install from the editor



Popular extensions

- Vue – [Vetur](#)
- Angular – [Angular Snippets](#) by John Papa
- React – [Simple React Snippets](#) by Burke Holland
- Overall
 - [Prettier](#) – code formatting
 - [GitLens](#) – track git changes
 - [Live Share](#) – collaborate on projects

More VS Code extensions



The screenshot shows a blog post titled "16 Unique VSCode Extensions Every Developer Should Have in 2020". The post is by Lokender Singh and has a 5-minute read time. It includes social sharing icons for Twitter, LinkedIn, Facebook, and a copy link button. Below the post is a screenshot of the Visual Studio Marketplace homepage, showing featured extensions like "Add New File", "Live Share", and "Visual Studio IntelliCo".

16 Unique VSCode Extensions Every Developer Should Have in 2020

16 VSCode extensions for better Javascript coding.

Lokender Singh [Follow](#)
May 6 · 5 min read

Twitter LinkedIn Facebook Copy

Visual Studio | Marketplace

Extensions for the Visual Studio family of products

Search Visual Studio extensions

Featured

- Add New File
- Live Share
- Visual Studio IntelliCo
- ML.NET Model Builder
- Continuous Delivery
- Pull Requests for Visual Studio

Trending this week

<https://blog.bitsrc.io/16-unique-vscode-extensions-every-developer-should-have-in-2020-c4dcdb74506a>

WebStorm Plugins



The screenshot shows the homepage of the JetBrains Plugins Repository. The top navigation bar includes links for IDEs, .NET, Team Tools, Dev Guide, Sign In, and a search icon. A large, stylized graphic in the center features the text "JetBrains Plugins Repository" in white. Below this is a search bar with a placeholder "Search" and a magnifying glass icon. The background is a dark purple and orange gradient with abstract geometric shapes. At the bottom, there's a section titled "IntelliJ Platform Based Products" with icons for IntelliJ IDEA, PyCharm, and PhpStorm.

JetBrains Plugins Repository

Search Search

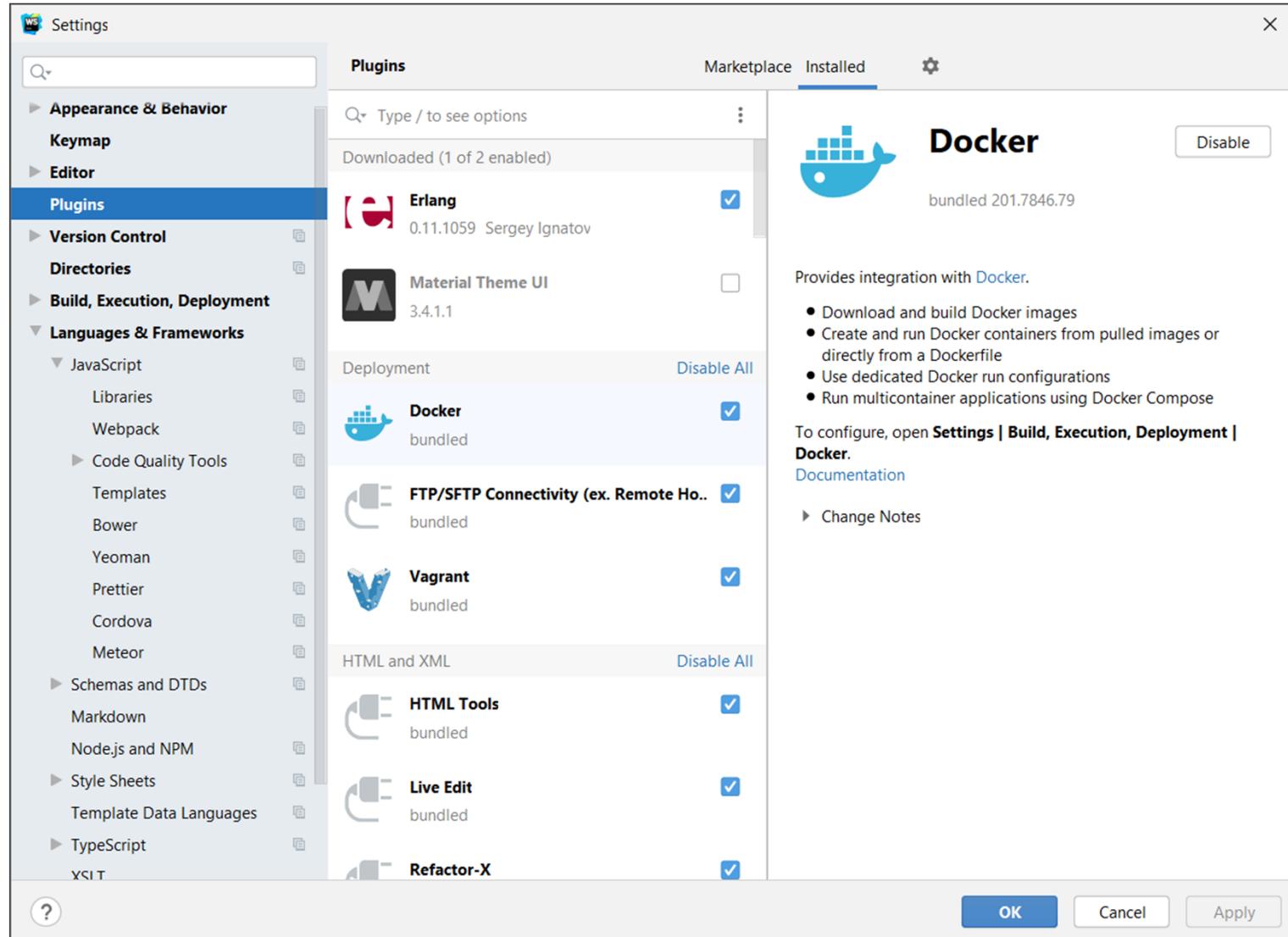
IDEs .NET Team Tools Dev Guide Sign In

IntelliJ Platform Based Products

 IntelliJ IDEA  PyCharm  PhpStorm

<https://plugins.jetbrains.com/>

File, Settings, Plugins



Other editors

Search for [editor name] plug-ins or extension or packages

The screenshot shows the Atom Packages website interface. At the top, there is a dark navigation bar with the Atom logo, links for Packages, Themes, Documentation, Blog, and Discuss, and a Sign in button. Below the navigation bar, a large banner features the text "Packages make Atom do amazing things." A search bar is positioned below the banner, containing the placeholder "Search 8,868 packages" and a "Search" button. The main content area is titled "Featured" and displays six package cards:

- teletype**: Share your workspace with team members and col...
#collaboration #collaborative-editing #pair-programming ...
atom 1,126,740 648 Install
- scroll-through-time**: Two fingers scroll moves through time instead of s...
#scroll #time #space #xkcd
mathieudutot 93,985 158 Install
- hydrogen**: Run code interactively, inspect data, and plot. All t...
#execute #run #jupyter #python #julia
interact 1,848,395 732 Install
- hey-pane**: Atom Plugin to enlarge the active pane, either with...
#pane #focus #origami #zoom #autozoom
timomeh 153,086 151 Install
- atom-clock**: Display a customizable clock in the status bar.
- zentabs**: Keep the opened tabs amount below specified limit

<https://atom.io/packages>



Photo by [Stijn Kleerebezem](#) on Unsplash

Summary

- Tooling for frontend developers
- Git, Node.js, NPM
- Editors, Visual Studio Code, WebStorm
- CLI-tools per framework
- Browser Devtools
- Transpiling – Babel.js, TypeScript
- Linting, bundling,
- IDE extensions