

Having gone through the front-end development scene with a fine-tooth comb, Louis Lazaris brings you a fresh batch of 50 tools you'll want to consider for your projects in 2019

BUILD TOOLS



Parcel

https://parceljs.org/

1 A beautifully fast, multi-featured, web application bundler that requires minimal configuration and has become incredibly popular in a relatively short amount of time. The fact that this tool requires such little configuration makes it an attractive option for those that are new to build tools.

Critters

https://github.com/GoogleChromeLabs/critters

2 A webpack plugin to inline the critical CSS of your app and then lazy-load the rest. Fast and lightweight because it doesn't use a headless browser to render content.

Sucrase

https://sucrase.io/

3 An alternative to Babel (the popular ES6+ compiler) that focuses on non-standard language extensions such as TypeScript, JSX and Flow. This means that compiling is 20x faster than Babel. You can give this one a test run online before deciding whether to commit to using it in your project.

Webpack Config Tool

https://webpack.jakoblind.no/

4 Web tool and CLI to create a personalised and optimised webpack.config.js file. Although it doesn't yet support advanced options like code splitting, the existing features will build your file based on industry best practices for reducing webpack bundle size.

JSUI

https://github.com/kitze/JSUI

5 This UI toolkit is for anyone wanting to organise, create and manage JavaScript projects. Enables you to generate new apps, search apps and project files, apply plugins and gives you a project dashboard.

PWA Universal Builder

https://pwa.cafe/

6 A framework-agnostic and feature-rich CLI tool for kicking off your progressive web apps. Quickly scaffold new projects with your preferred view library and toolkit and then get it all started with specific best practices and optimisations built in.

VuePress

https://vuepress.vuejs.org/

7 A simplicity-first, static-site generator composed of two parts: a minimalistic static-site generator with a Vue-powered theming system and plugin API; and a default theme optimised for writing technical documentation. Each page generated by VuePress has its own pre-rendered static HTML, which provides great loading performance and it is SEO-friendly.



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t: @impressivewebs

FRAMEWORKS AND LIBRARIES

PWA Starter Kit

https://pwa-starter-kit.polymer-project.org/

8 From the Polymer team, this is a set of starter templates for generating full-featured progressive web apps using web components. The components are responsive, fast loading, and easy to customise.

PaperCSS

https://www.getpapercss.com/

9 Touting itself as being "the less formal CSS framework", the components feature a relaxed, hand-drawn look.

boardgame.io

https://boardgame.io/

10 This game engine for turn-based games uses JavaScript. You don't even have to worry about any code for networks or handling databases – just begin with a function to explain what happens as a result of a specific move. This function then converts to a working game.



PaperCSS is a unique CSS framework with components that feature a fun, hand-drawn look.

Stimulus

https://stimulusjs.org/

11 A JavaScript framework for your existing HTML. Stimulus doesn't render your HTML but augments it by connecting elements to JavaScript objects automatically.

Sapper

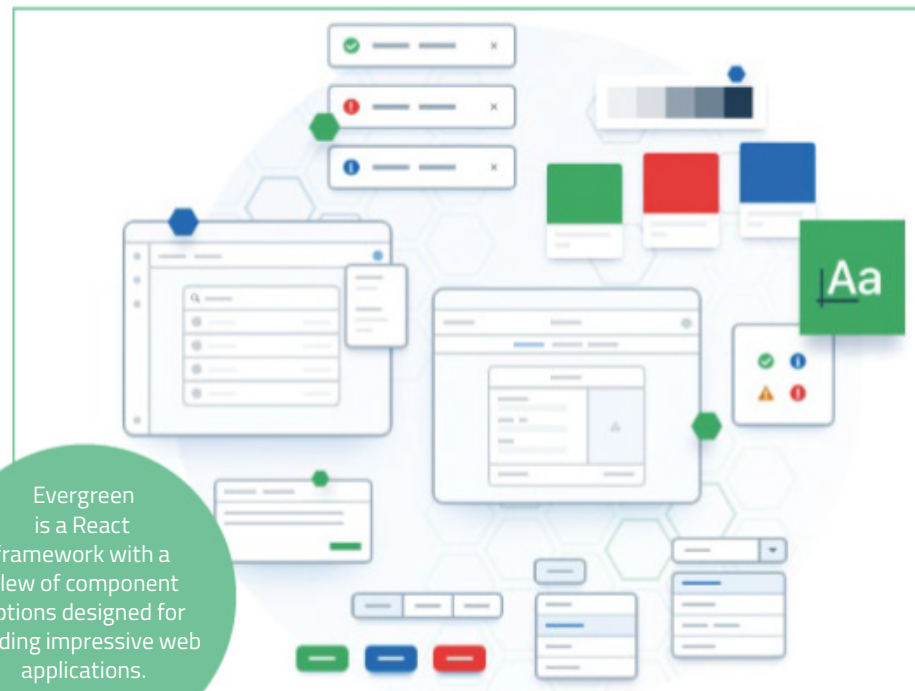
https://sapper.svelte.technology/

12 A framework for building high-performance universal web apps, powered by Svelte (a UI framework that made last year's list). To create pages, you need to add files to the src/routes directory. Each page is a Svelte component and these components become JavaScript modules that are super fast.

Reakit

https://reakit.io/

13 Accessibility is a major reason for trying this tool out, because all of the components comply with the WAI-ARIA specification. Each component follows the Single Element Pattern, meaning you can enjoy the same consistency that is possible from native HTML elements and components can be leveraged to make something new.



Evergreen is a React framework with a slew of component options designed for building impressive web applications.

Evergreen

https://evergreen.segment.com/

14 A flexible React UI framework for building enterprise-grade web applications. Contains a set of polished React components that include layout components, buttons, form elements, an autocomplete widget, file picker and lots more.

CSS Grid generators

One type of tool not included in the main body of this feature is a CSS Grid generator. This is usually a one-page site that lets you build a grid layout visually and spits out W3C Grid Layout Module code. Many such tools have appeared and they really are useful, especially if you're not an expert with the syntax. Here are a few options:

LAYOUTIT! CSS GRID GENERATOR
https://www.layoutit.com/grid
Interactively select your grid areas, use buttons to add columns and rows, name your grid areas and save as a shareable permalink.

CSSGR.ID
https://cssgr.id/
This tool by Dan Netherton includes similar features as the previous tool and also enables you to add Lorem Ipsum text.

CSS GRID TEMPLATE BUILDER
https://codepen.io/anthonydugois/full/RpYBmy/
This CodePen demo by Anthony Dugois is quite a unique option because it enables you to build the grid layout primarily using a string that you edit and then drop into your CSS as a value for the grid-template-areas property.

CSS GRIDISH
https://github.com/IBM/css-gridish
This project from the IBM team takes design specs of your product's grid and builds out several resources for your team to use, including a Sketch file with artboards and grid/layout settings, CSS/SCSS code using CSS Grid with a CSS flexbox fallback and also a Chrome extension.

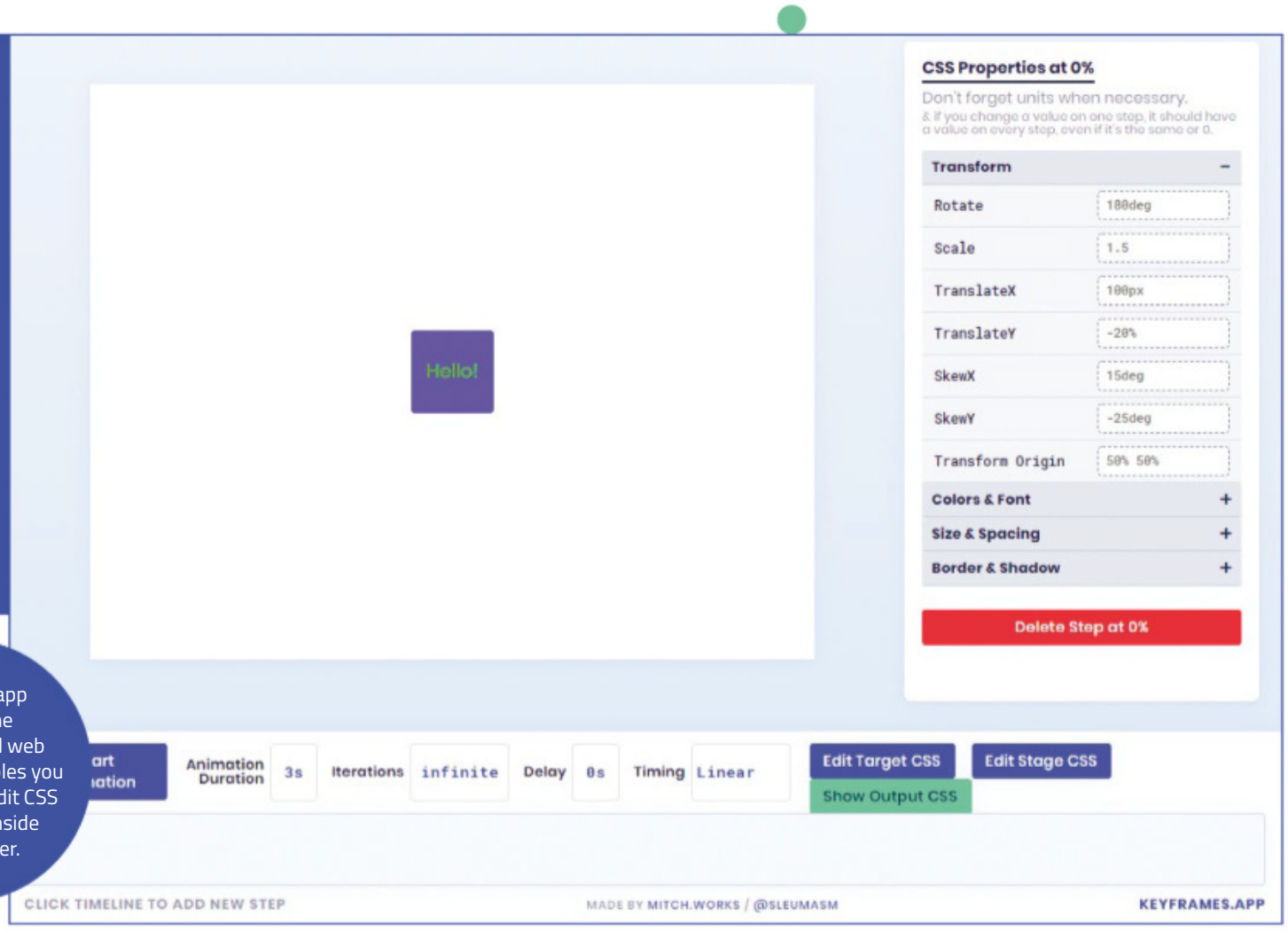
CSS GRID LAYOUT GENERATOR
https://css-grid-layout-generator.pw/
A new one by Dmitrii Bykov that takes a little getting used to but there's a one-minute screencast to help get you started.

HTML AND CSS TOOLS

Keyframes.app

https://keyframes.app/

15 A simple tool to create CSS animations, available as a Chrome extension or web editor. It uses a timeline setup, which enables you to create and view your animations from the one place. No more flitting between browser and editor.



Keyframes.app is a Chrome extension and web editor that enables you to create and edit CSS animations inside your browser.

Emotion

https://emotion.sh/

16 A CSS-in-JS library that promises users a high level of performance and flexibility. It manages to steer clear of CSS specificity problems by using predictable composition and it takes no time at all to style apps using the string or object styles.

modern-normalize

https://github.com/sindresorhus/modern-normalize

17 A modern alternative to Normalize.css (the popular CSS reset) that's smaller and targeted mainly at the latest versions of modern browsers.

layerJS

https://layerjs.org/

18 A straightforward open-source library for creating UX patterns such as menus, sliders, lightboxes, parallax effects, page-swipes and zoom effects in pure HTML. The result is intuitive, visually intense, mobile app-like experiences to use on the web.

CSS Blocks

https://css-blocks.com/

19 An incredibly fast CSS solution for design systems or app components. You create the CSS using components, which adhere to stylesheets inspired by some of the best in the business, including CSS Modules, BEM and Atomic CSS.

Basin

https://usebasin.com/

20 Basin is a simple form back-end solution for designers and developers. It saves development time so you can start collecting form submissions and tracking conversions without having to get involved with any back-end coding.



CSS Blocks is a component-oriented CSS system that compiles to high-performance stylesheets, inspired by methodologies like BEM and Atomic CSS.

Mustard UI

https://mustard-ui.com/

21 This starter, open-source CSS framework includes styles for a flexbox-based 12-column grid, along with attractive progress bars, buttons, form elements, pricing tables, cards and more. It also produces nice, small files sizes.

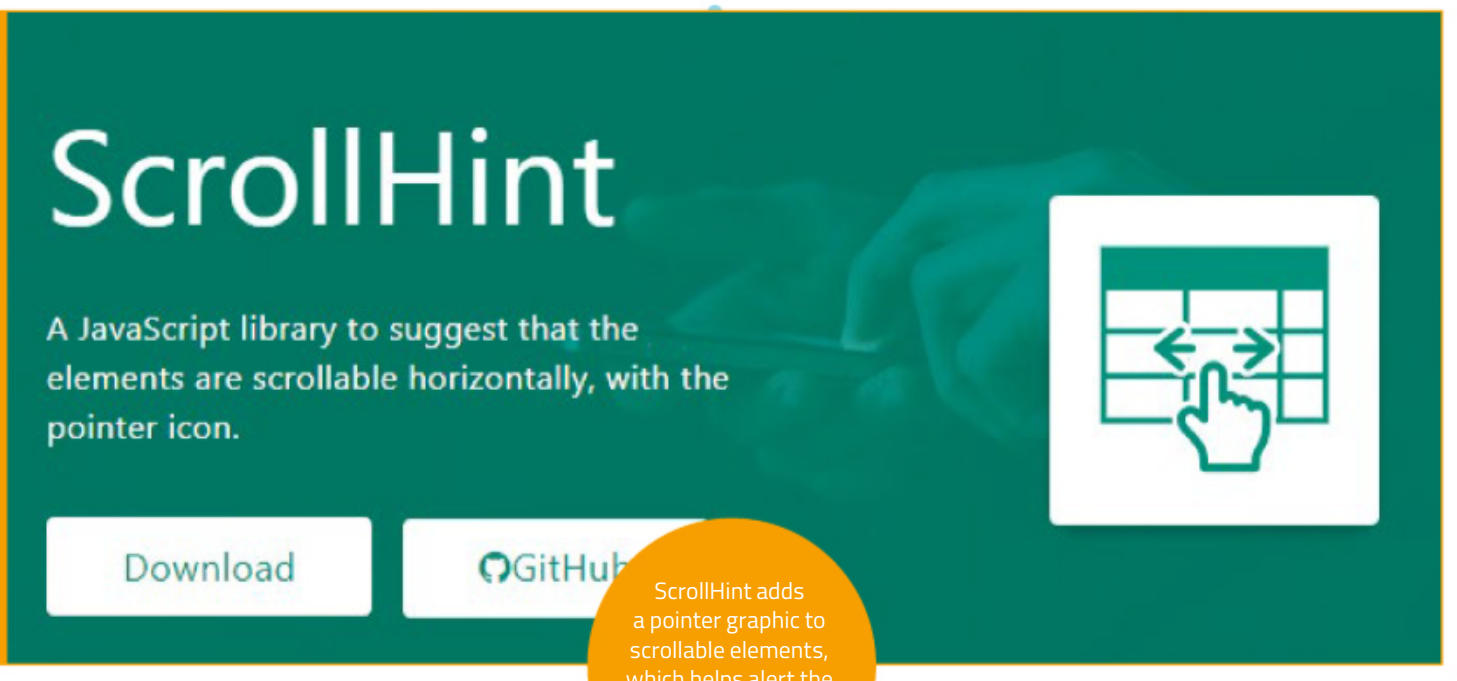
> "Enterprise is a framework for building enterprise-grade web applications"

JAVASCRIPT TOOLS

ScrollHint

https://appleple.github.io/scroll-hint/

22 A neat little utility that adds a visual 'scrollable' pointer graphic to indicate that a section of the page is able to be scrolled or swiped horizontally. Great for mobile apps with horizontal scrolling sections.



ScrollHint adds a pointer graphic to scrollable elements, which helps alert the user that an area can be scrolled or swiped.

ToastUI Editor

https://github.com/nhnent/tui.editor

23 An extensible WYSIWYG editor that features GitHub-flavoured Markdown along with extensions for creating attractive bar graphs and UML-based diagrams.

FilePond

https://pqina.nl/filepond/

24 A JavaScript library designed to add a file upload component to your app. Images are optimised to help ensure faster uploads and the overall user experience is a joy.

Dinero.js

https://sarahdayan.github.io/dinero.js/

25 Use this library to work with monetary values in JavaScript featuring an immutable and chainable API, global settings, extended formatting and rounding options and currency conversion.

Swup

https://github.com/gmrchk/swup

26 A beginner-friendly page transition library that works around CSS transitions. Use the events to perform actions such as running JavaScript, instigating analytics or closing sidebars. If JavaScript-based animations are your thing, there is an optional JavaScript extension.

Selection.js

https://simonwep.github.io/selection/

27 This library enables your UI to include desktop-like selections. For example, you can click-and-drag multiple items to select a group of objects on the page or use Cmd/Ctrl-click for non-adjacent selections of groups of elements.

Glider.js

https://nickpiscitelli.github.io/Glider.js/

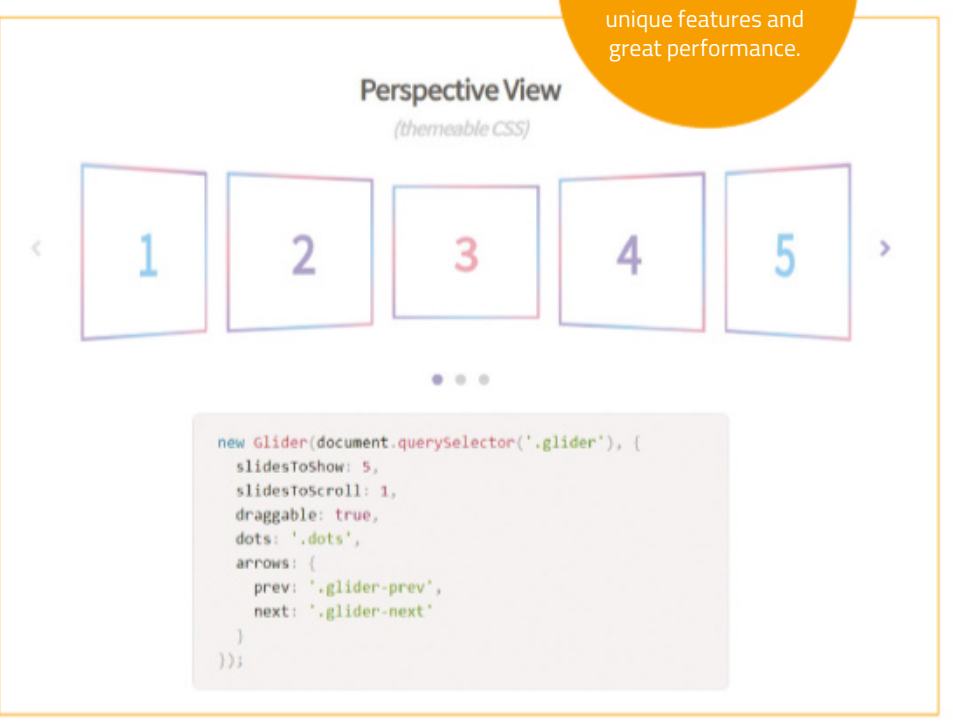
28 According to the website, this is a "blazingly fast, crazy small, fully responsive, mobile-friendly, dependency-free, native carousel/slider with paging controls". Includes a 3D-like perspective view and works great on mobile and desktop using drag/swipe to cycle through the items.

ScrollOut

https://scroll-out.github.io/

29 Apply this to pick up on any changes in a user's scroll for reveal and parallax effects. Animate elements with JavaScript callbacks, CSS selectors or CSS variables.

Glider.js is a vanilla JavaScript carousel/slider plugin with various useful and unique features and great performance.



> "Images are optimised to help ensure faster uploads and the overall user experience is a joy"

More about state management

A tool listed in this feature, Unstated (*https://unstated.io/*), is one of many state management libraries for React. Even if you've yet to delve into a library like React, the concept of state might still be familiar. But it's not React-specific – it's generally a feature associated with single page apps (SPA).

In fact, if you've written JavaScript without a library, you've probably done some level of state management whether you realised it or not. If the concept is new to you, consider a web form as an example. The form can be in various 'states', including:

- Empty (ie not filled in)
- Partially filled in
- Completely filled in but erroneously so
- Completely filled in and valid
- Submitted

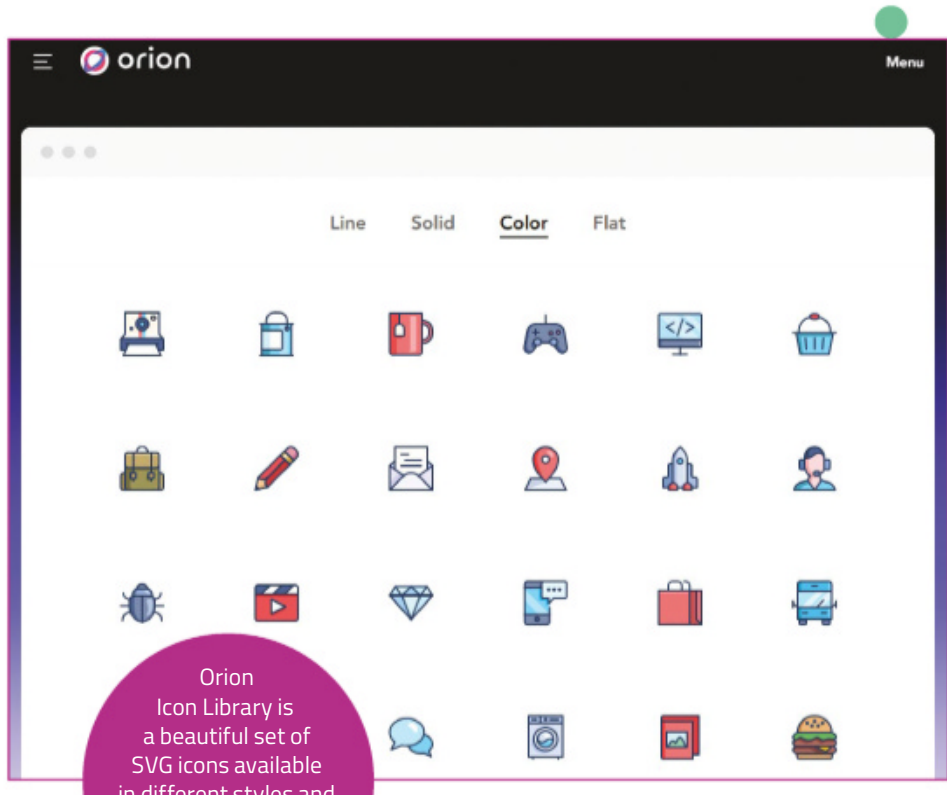
Other items that might be concerned with state include buttons (pressed vs not pressed), or video players (playing, paused, stopped, etc). Pretty much anything on a page can have varying states.

React and similar libraries already have state solutions built in but helper libraries exist to ease the complexity of managing state. A state management library makes it easier to handle the various states that your components are in so you don't have to deal with loads of code splitting, nested conditionals and so forth. Because SPAs can be so complex in terms of what state an app is in, a state management solution can help.

In addition to Unstated, other state helpers include:

- Redux https://redux.js.org/
- MobX https://mobx.js.org/
- Undux https://undux.org/
- Vuex https://vuex.vuejs.org/

MEDIA TOOLS



Orion Icon Library is a beautiful set of SVG icons available in different styles and includes an online app for organising your icons.

Orion Icon Library

https://orioniconlibrary.com/

30 A massive set of more than 6,000 stunning SVG icons available as line, solid, colour and flat colour style. There are two plans to choose from: Free and Pro. The Pro plan doesn't require any attribution, gives you access to over 2,000 new icons and provides library management options.

Frappe Charts

https://frappe.io/charts

31 Delve into these simple, SVG charts that have no dependencies and are inspired by GitHub. Create line graphs, bar charts, pie charts and more, with hover effects for displaying information.

SVGator

https://www.svgator.com/

32 An online SVG animation tool with a user-friendly interface. Enables you to import SVG, view and edit the code and use animation presets to animate before exporting a single ready-to-use SVG file.

ApexCharts

https://apexcharts.com/

33 Use ApexCharts to create responsive, interactive, high-performance JavaScript charts to represent your data. Features annotations and animations, all built and customised using a simple API.

MapKit JS

https://developer.apple.com/maps/mapkitjs/

34 If you need to include a map on a web page, you may as well make it interactive. This JavaScript library from Apple lets you do exactly that, in addition to using annotations and overlays. The service comes with a free daily limit of 250,000 map views and 25,000 service calls.

Img2

https://github.com/RevillWeb/img-2

35 A JavaScript utility that automatically pre-caches images to improve page performance. Just swap out your <img /> elements with <img-2></img-2> and the utility does the caching work for you.

Lozad.js

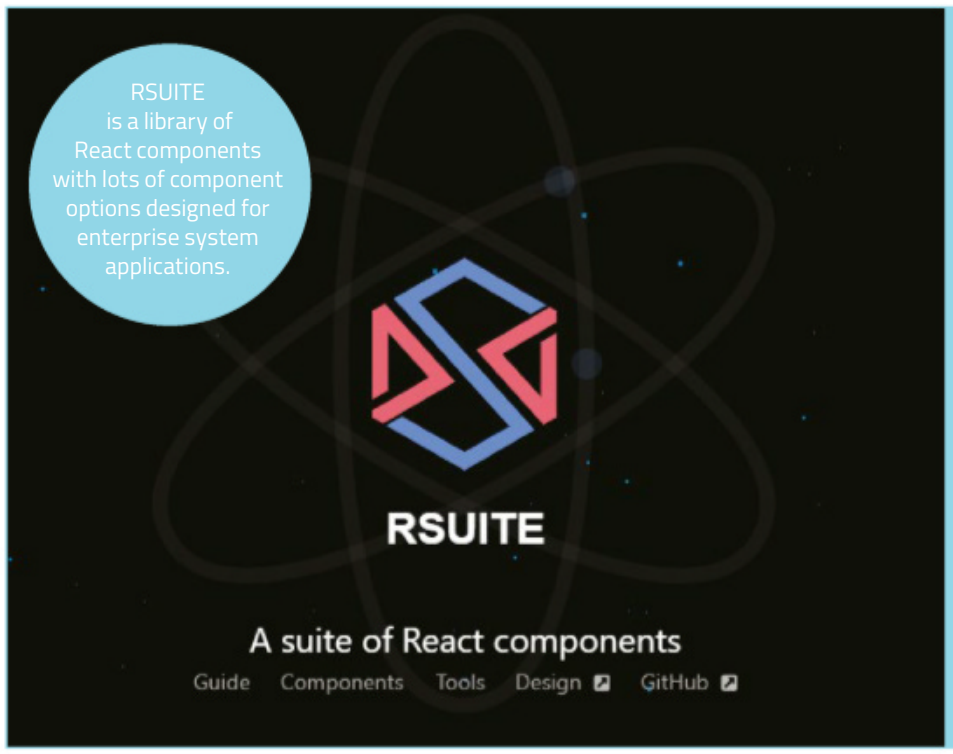
https://github.com/ApoorvSaxena/lozad.js

36 A fast, light and configurable, vanilla JavaScript lazy loader with no dependencies that uses the IntersectionObserver API, for lazy loading images, iframes, ads, videos or any other element.



ApexCharts enables you to embed attractive, interactive charts and other visualisations using a simple and powerful API.

REACT TOOLS



RSUITE

https://rsuitejs.com/

37 Get your hands on this library of React components for enterprise system products. This impressive suite includes a large number of components with rich interactions, such as modals, alerts, popovers, drawers, progress bars, form elements, data display and lots more.

Pagedraw

https://pagedraw.io/

38 A WYSIWYG live-collaboration editor that generates code for your presentational Angular/React components. With Pagedraw, you can draw React components as usual but the big difference is they can be used as if they were manually coded.

react-smooth-dnd

https://github.com/kutlugsahin/react-smooth-dnd

39 We all appreciate the importance of keeping libraries in an organised state. This sortable library for React offers various options for different drag-and-drop scenarios.

Unstated

https://unstated.io/

40 As covered in the box out in this feature, there are many state management libraries for React. Unstated aims to differentiate itself through its ease of use. With Unstated, you build on top of the patterns set out by React components and context. No intense architecture needed.

Reach Router

https://reach.tech/router

41 One of the more recent and popular routing solutions for React with many features. This one is touted as a next-generation routing option with out-of-the-box accessibility.

SVGR

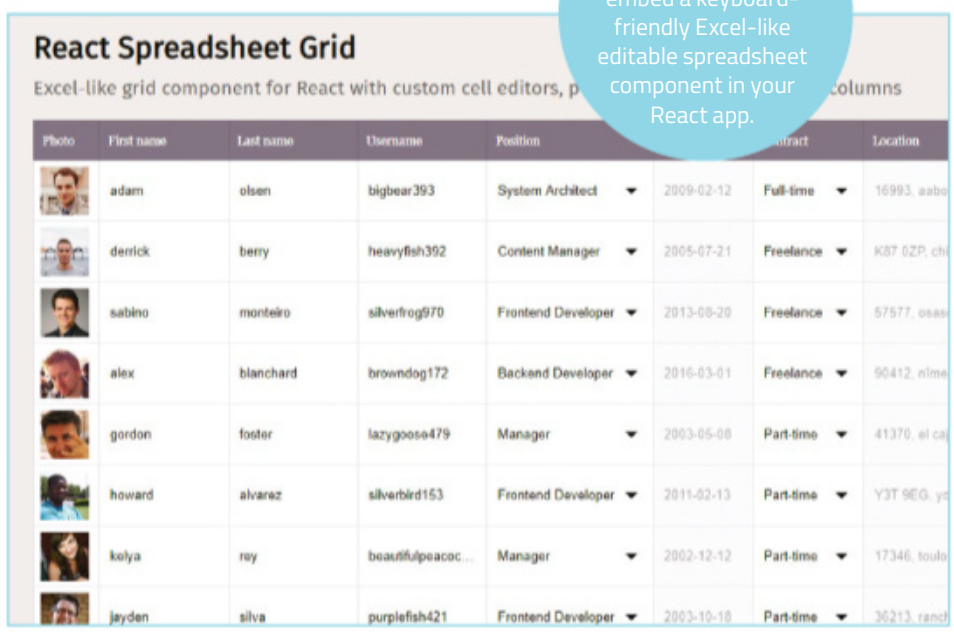
https://www.smooth-code.com/open-source/svgr/

42 Turn SVGs into React components by means of a CLI or as a webpack, rollup or Parcel plugin. You can try it out using an online playground that instantly converts editable SVG code to React.

React Spreadsheet Grid

https://denisraslov.github.io/grid/

43 This Excel-like grid component for React features cell editing, high-performance scroll and resizable columns. The grid can be controlled via mouse or keyboard, similar to a native spreadsheet app.



React Spreadsheet Grid enables you to embed a keyboard-friendly Excel-like editable spreadsheet component in your React app.

Resources

WEB TOOLS WEEKLY
https://webtoolsweekly.com/
This author's weekly newsletter features a quick coding tip followed by a list of tools covering many of the same categories from this feature and lots more. One of the most popular categories is 'Productivity Tools', which you might find useful.

CHANGELOG NIGHTLY
http://changelog.com/nightly
This is a daily email that lists the most starred GitHub repos. If you'd prefer, you can also subscribe to an editorialised weekly update instead (*http://changelog.com/weekly*).

ECHO JS
https://www.echojs.com/
A JavaScript news feed with voting and commenting in the style of Reddit and Hacker News. Being a JavaScript-only source, you'll get to enjoy lots of news, new JS utilities, libraries and more.

SHOW HN
https://news.ycombinator.com/show
The most popular place for programmers and developers to submit and get feedback on their projects and tools. You'll find lots of new and unique things here, including tools for front-end development.

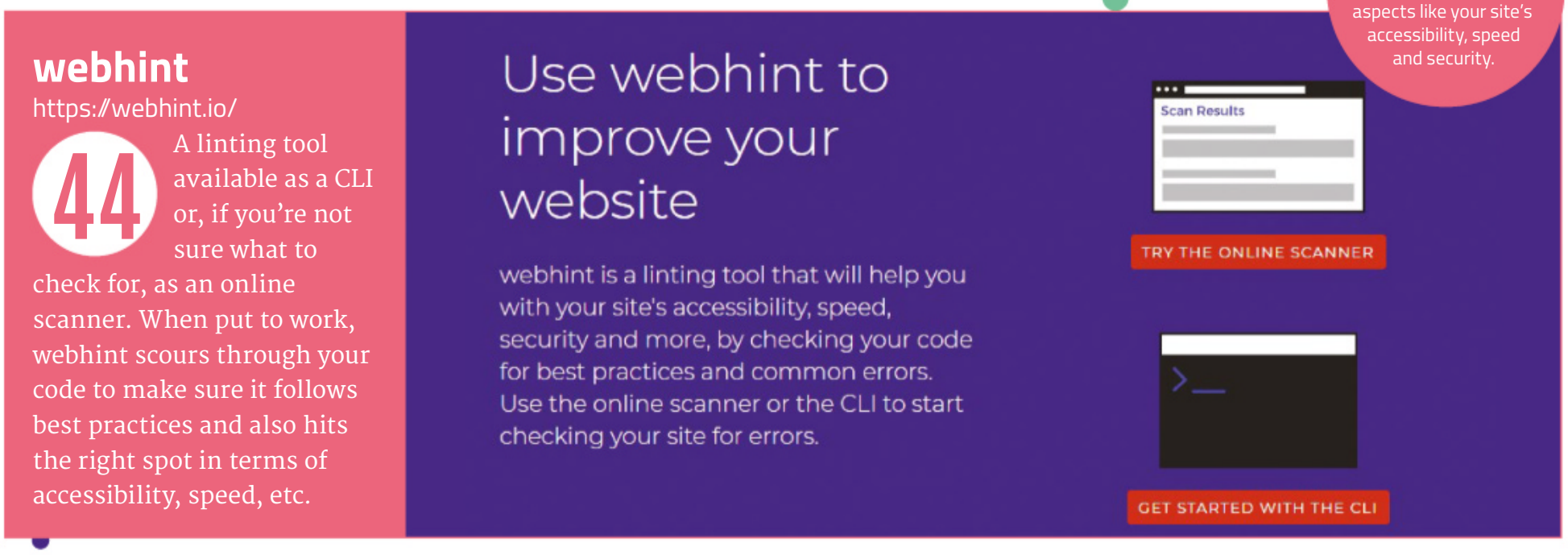
> "webhint scours through your code to make sure it follows best practices"

TESTING & DATA TOOLS

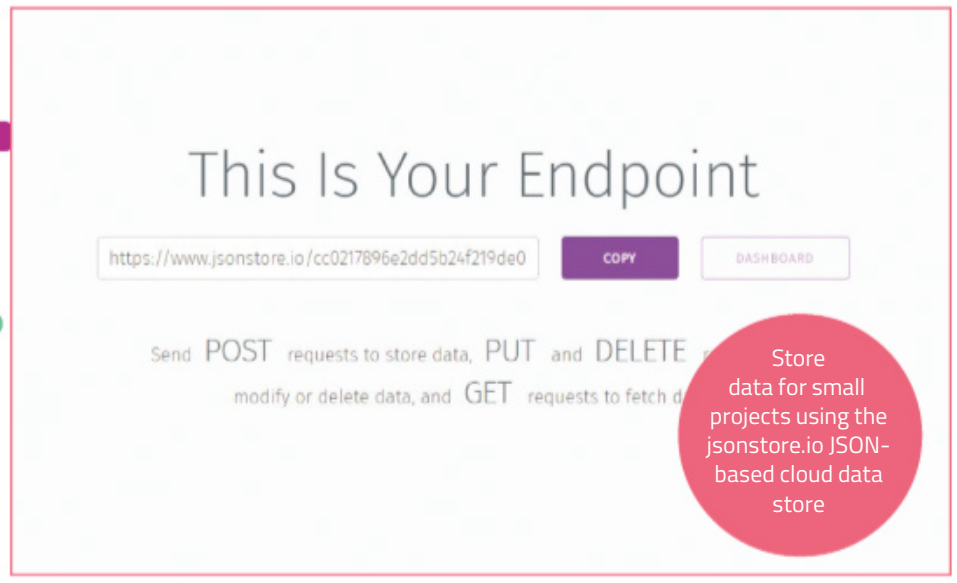
webhint

https://webhint.io/

44 A linting tool available as a CLI or, if you're not sure what to check for, as an online scanner. When put to work, webhint scours through your code to make sure it follows best practices and also hits the right spot in terms of accessibility, speed, etc.



webhint is a linting tool available as an online scanner or CLI that can help improve aspects like your site's accessibility, speed and security.



Store data for small projects using the jsonstore.io JSON-based cloud data store

Airtap

https://github.com/airtap/airtap

45 Quickly test your JavaScript in more than 800 browsers. Airtap stands out from other cross-browser testers because you can run the different browsers without installing them locally.

mkcert

https://github.com/FiloSottile/mkcert

46 If you require SSL in a local development environment, this simple tool can whip up locally trusted SSL certificates using whatever names you'd like.

Puppeteer Recorder

https://checklyhq.com/puppeteer-recorder

47 A Chrome extension that records browser interactions such as clicks, typing and form interactions, before creating a script for Puppeteer (the popular headless Chrome testing API). You also have a chance to edit the generated code using the configuration options.

jsonstore.io

https://www.jsonstore.io/

48 Web service that offers a free, secure and JSON-based cloud data store for small projects. Go to the site, copy the generated URL and start sending HTTP requests to communicate with your data store.

Initab

http://initab.com/

49 Not getting on with Chrome's new tab page? Not a problem – replace it with a set of useful tools tailored to your programming needs. We're talking GitHub/GitLab activity, Gists, Stack Overflow, a scratchpad for notes and more.

LambdaTest

https://www.lambdatest.com/

50 If you're going to test your websites and web apps, you may as well do it properly. This useful tool runs your public or locally hosted creations on over 2,000 mobile and desktop browsers that are running real operating systems. What's more. the built-in debugging tools take care of any issues in real time.

That's all for this year's roundup of tools! While it can be fun to reinvent the wheel with raw code, it's even more fun to push something to production quickly and efficiently. These tools should help you to do just that.

After considering this list, we hope you're better informed of what's been added to the tools landscape over the past 12 months or so, whether you're deciding on a framework, something specific for your build or testing process, a React component or anything else. Whatever the case, this list should be a good starting point to help you solve some of the specific problems you face as a front-end or full-stack developer.