



Modern Front-end Development with Vue.JS

Galih Pratama

Head Front-end Developer at **CROWDE**



Who are you?



Galih Pratama

Front-end Developer with 30+ web/apps developed.

Tech-based Edu Content Creator with 100+ videos created, since 2011.

Current Work / Projects

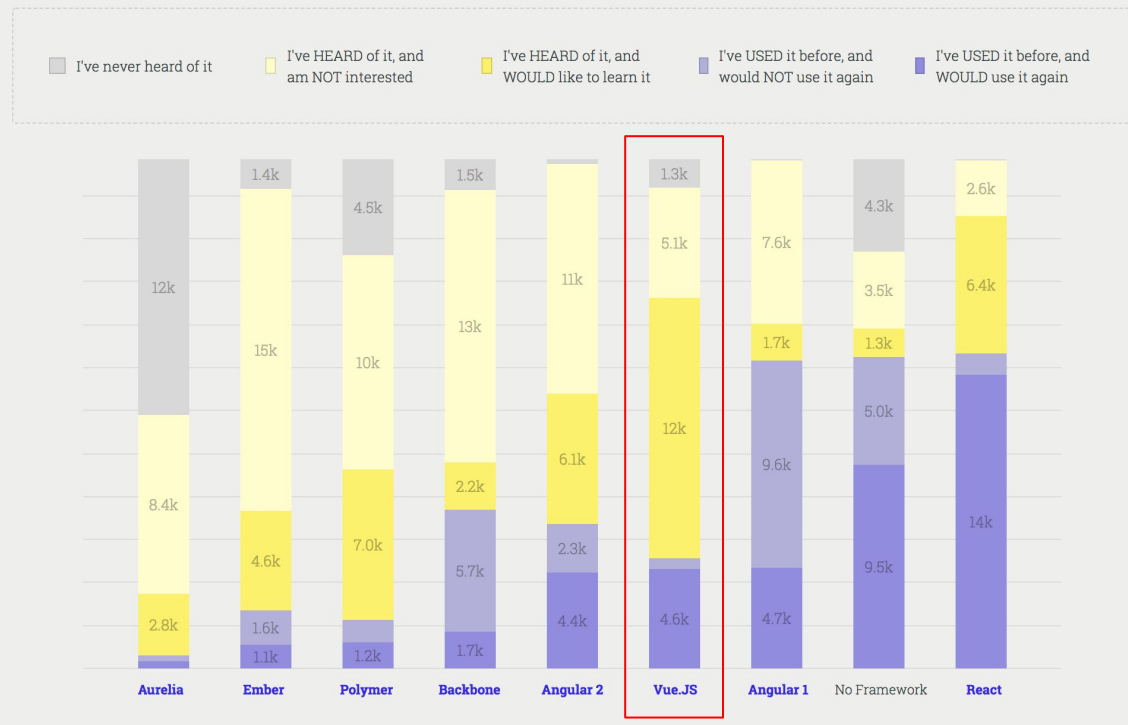




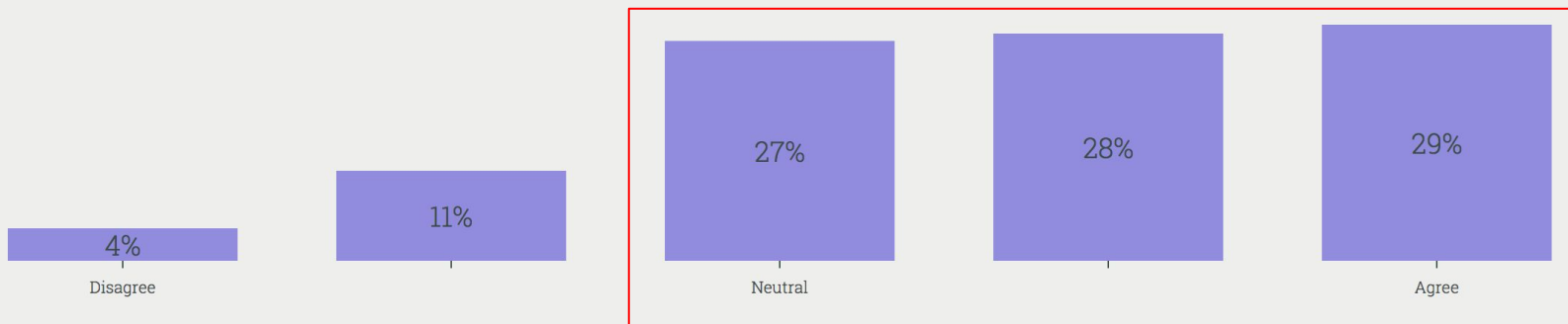
Me in a nutshell

Current State of Javascript

Per-library survey results.

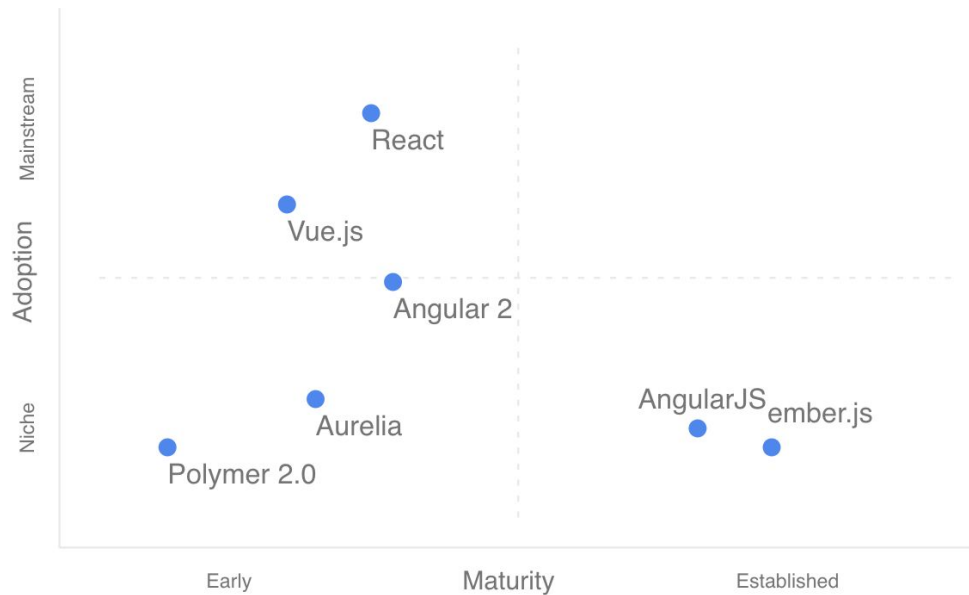


“Building JavaScript apps is overly complex right now”



Javascript Frameworks

last updated February 21, 2018 ...



stateofdev.com/c/frontend

What is “Modern Front-end Development” means?

Improve development speed

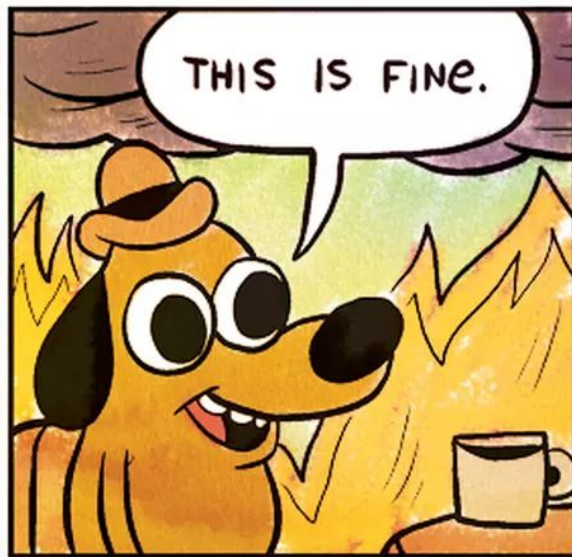
Decrease future technical debt

Modular

Good programming pattern

Not over-engineering things

Easy



Why Vue.JS?

Learning curve is easy

Simplicity

Hot reload

Write HTML like an usual

Flexible

Single page apps

Vue Devtools

Can used on existing app

Small file size

Less boilerplate code

Fun

Two-way data binding

Vuex

Detailed documentation

Reactive

vue-cli

Single Page Apps (SPA)

Why SPA?

App rendered in browser

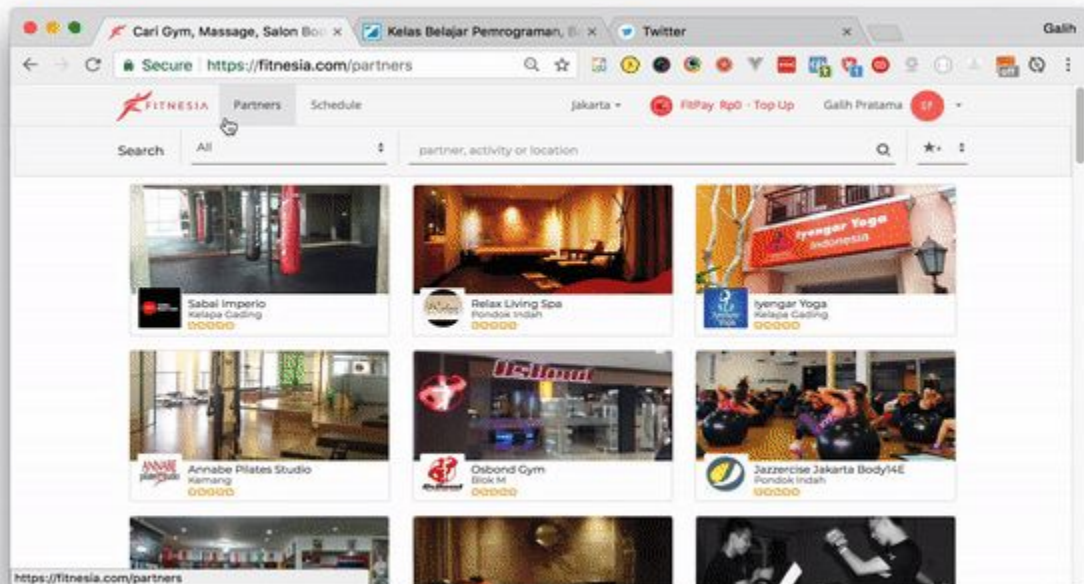
Less server overhead

(no need to render anything in server, only serve html/css/js)

Separation of Concerns

(frontend do frontend, backend do backend)

Fast



Vue Devtools

Makes developing on Vue.js even easier than it already is.

Developer Tools - http://localhost:8080/

Elements Console Sources Performance Memory Application Security Audits Network **Vue**

Ready. Detected Vue 2.4.4.

Components Vuex Events Refresh

Filter components Select Format <BCollapse> Filter inspected data Inspect DOM

<Root>

<App>

<BNavToggle>

<RouterLink>

> <BCollapse> = \$vm0

<CurriculumIndex>

<RouterLink>

> <LessonIndex>

<Notifications>

router-view: /curriculum

router-view: /curriculum/lesson

type String

required false

props

accordion: null

id: "nav_collapse"

isNav: true

tag: "div"

visible: false

data

\$route

show: false

transitioning: false

computed

classObject: Object

collapse: true

navbar-collapse: true

show: false

errors: Object

items: Array[0]

formFields: Store

state

getters

Developer Tools - http://localhost:8080/

ElementsConsoleSourcesPerformanceMemoryApplicationSecurityAuditsNetworkVue

5

Ready. Detected Vue 2.4.4.

ComponentsVuexEventsRefresh

Filter mutations

Commit AllRevert AllRecording

Base State11:39:57

route/ROUTE_CHANGED11:40:05

route/ROUTE_CHANGED11:40:06

inspectedactive

Filter inspected state

ExportImport

state

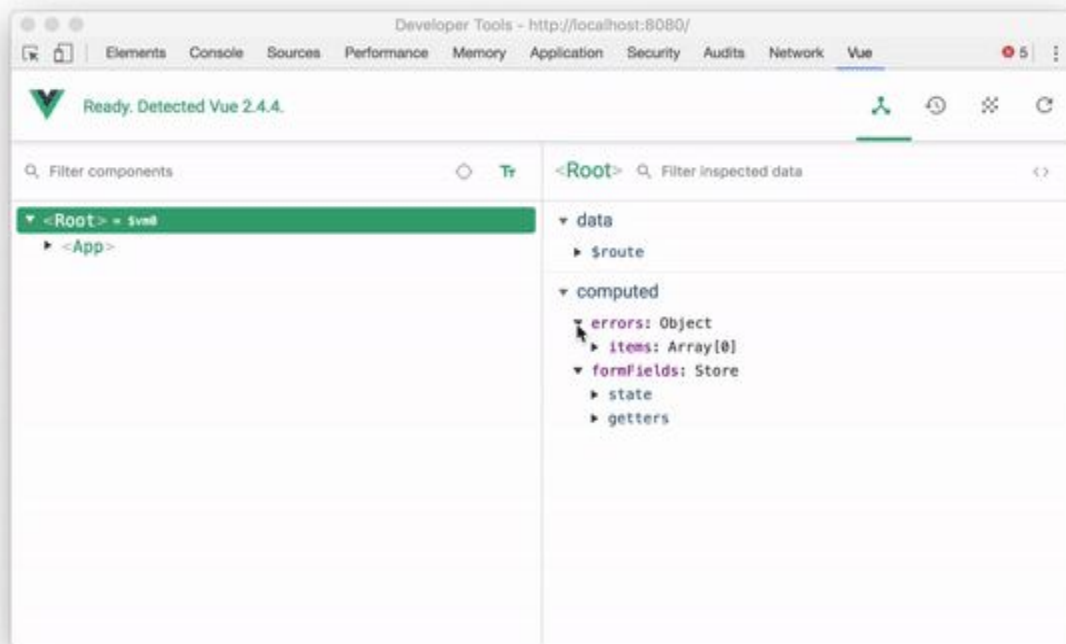
- Authentication: Object
- route: Object

getters

- Authentication/isLoggedIn: true

mutation

- payload: Object
 - from: Object
 - to: Object
 - type: "route/ROUTE_CHANGED"



vue-cli

A simple CLI for scaffolding Vue.js projects.

```
vue init <templatename> <projectname>
```





You can use it in any way!

- **webpack**
A full-featured Webpack + vue-loader setup with hot reload, linting, testing & css extraction.
- **webpack-simple**
A simple Webpack + vue-loader setup for quick prototyping.
- **browserify**
A full-featured Browserify + vueify setup with hot-reload, linting & unit testing.
- **browserify-simple**
A simple Browserify + vueify setup for quick prototyping.
- **pwa**
PWA template for vue-cli based on the webpack template
- **simple**
The simplest possible Vue setup in a single HTML file

SEO?

Google(bot) can index Single Page Apps

Rendering AJAX-crawling pages

Monday, December 04, 2017

The [AJAX crawling scheme](#) makes webpages accessible to Googlebot. Over time, Google engineers have significantly improved rendering of JavaScript for Googlebot. Given these advances, in the second quarter of 2018, we'll be switching to rendering these pages on Google's side, rather than on requiring that sites do this themselves. In short, we'll no longer be using the AJAX crawling scheme.

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As a reminder, the AJAX crawling scheme accepts pages with either a `#!` in the URL or a ["fragment meta tag"](#) on them, and then crawls them with an `"?_escaped_fragment_="` in the URL. That escaped version needs to be a fully-rendered and/or equivalent version of the page, created by the website itself.

With this change, Googlebot will render the `#!` URL directly, making it unnecessary for the website owner to provide a rendered version of the page. We'll continue to support these URLs in our search results.

We expect that most AJAX-crawling websites won't see significant changes with this update. Webmasters can double-check their pages as detailed below, and we'll be sending notifications to any sites with potential issues.



Lucamug

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Aug 19, 2017 · 9 min read

SPA and SEO: Google (Googlebot) properly renders Single Page Application and execute Ajax calls

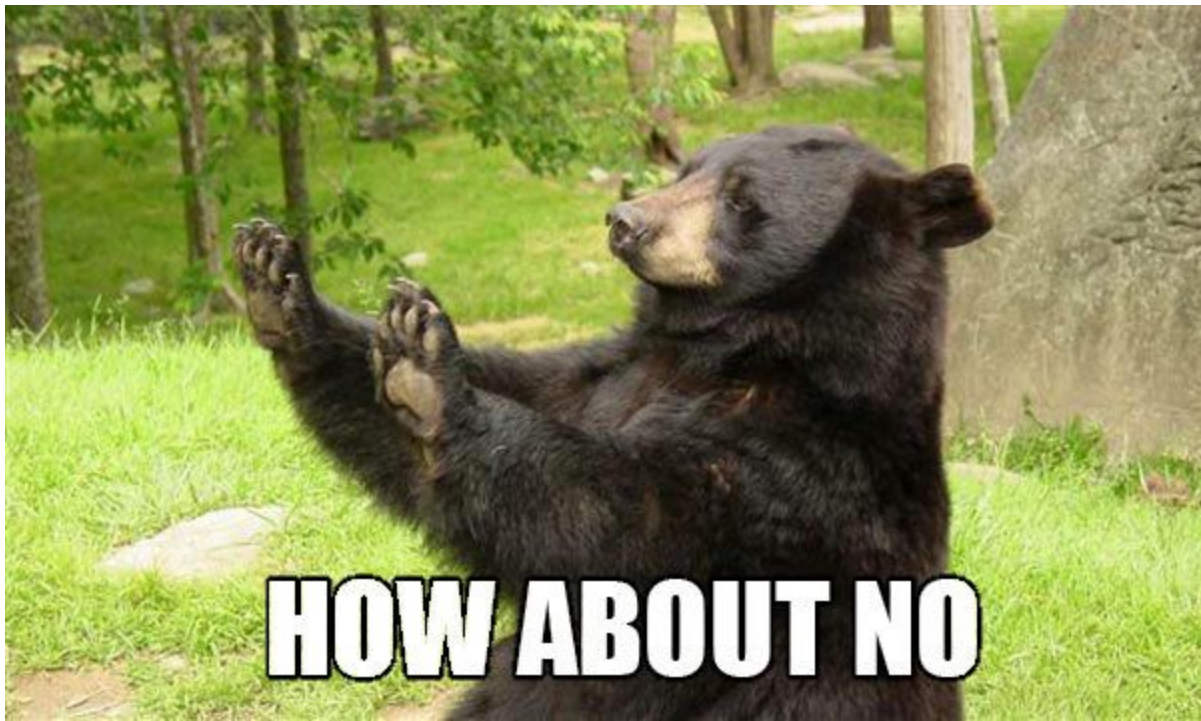


SPA & Googlebot

- Googlebot run the Javascript on the page and the Ajax calls are properly executed
- Googlebot waits between 5 to 20 seconds before taking a snapshot of each page

More :

<https://medium.com/@l.mugnaini/spa-and-seo-is-googlebot-able-to-render-a-single-page-application-1f74e706ab11>



Nuxt.js

Vue.js with Steroids and Server-side rendering support





NUXT

Universal Vue.js Applications

[GET STARTED](#)

[GITHUB \(V1.4.0\)](#)



EXPLORER

OPEN EDITORS

- index.vue pages
- default.vue layouts

NAVILLERA

- .nuxt
- assets
- README.md
- components
 - AppLogo.vue
 - README.md
- layouts
 - default.vue
 - README.md
- middleware
- node_modules
- pages
 - index.vue
 - README.md
- plugins
- static
- store
- .editorconfig
- .eslintrc.js
- .gitignore
- nuxt.config.js
- package-lock.json
- package.json
- README.md

index.vue x default.vue

```
1 <template>
2 <section class="container">
3   <div>
4     
5     <h1 class="title">
6       Navillera
7     </h1>
8     <h2 class="subtitle">
9       CROWDE Single Page Apps Frontend
10    <br>
11    <small>"The Butterfly of the Stars"</small>
12  </h2>
13  <div class="links">
14    <a
15      href="https://nuxtjs.org/"
16      target="_blank"
17      class="button--green">Documentation</a>
18    <a
19      href="https://github.com/nuxt/nuxt.js"
20      target="_blank"
21      class="button--grey">GitHub</a>
22  </div>
23 </div>
24 </section>
25 </template>
26
27 <script>
28   import AppLogo from "~/components/AppLogo.vue";
29
30   export default {
```

index.vue — navillera



Features

- Write Vue Files (*.vue)
- Automatic Code Splitting
- Server-Side Rendering
- Powerful Routing System with Asynchronous Data
- Static File Serving
- ES6/ES7 Transpilation



Features

- Bundling and minifying of your JS & CSS
- Managing `<head>` element (`<title>`, `<meta>`, etc.)
- Hot module replacement in Development
- Pre-processor: Sass, Less, Stylus, etc.
- HTTP/2 push headers ready
- Extending with Modular architecture

Vuetify

Beautify your Vue.js application with Material Design



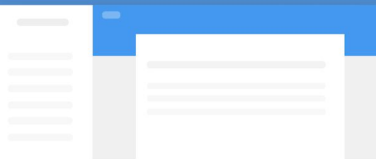


Material Design Component Framework

[GET STARTED](#)[GITHUB](#)[GET HELP](#)

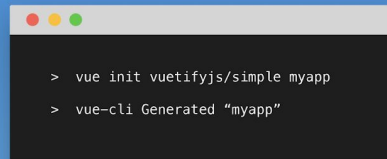
Vibrant Community

When you run into a roadblock, you need assistance right away. Vuetify offers chat support in our growing community on Discord.



Semantic Material Components

Be prepared for an armada of specialized components at your disposal. With over 80 in total, there is a solution for any application.



Ready-Made Project Scaffolding

Vuetify comes ready to go with 8 pre-made vue-cli templates. From simple html to full-blown SSR you are ready to go in minutes.

Follow Material Design Guidelines

Follow Material Design Guidelines

You can build apps fast

How experienced are you with Vue?



BEGINNER



INTERMEDIATE



ADVANCED



One Minute Quickstart



Simple HTML



Webpack Simple



Webpack



Webpack SSR



Nuxt



PWA



Electron

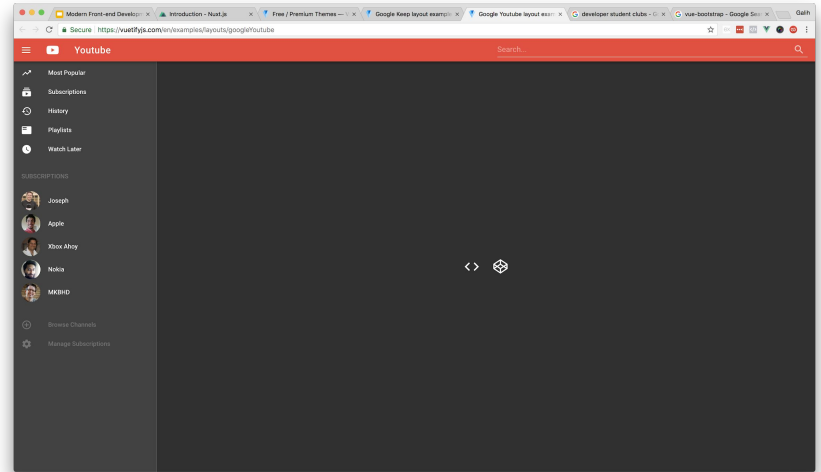
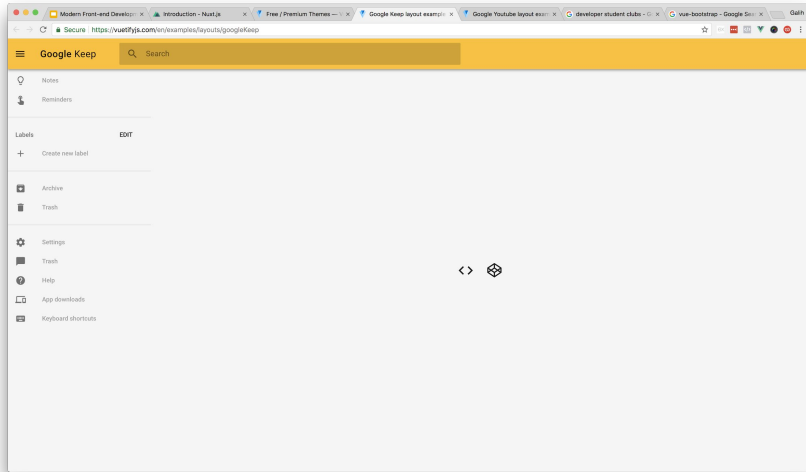


A La Carte

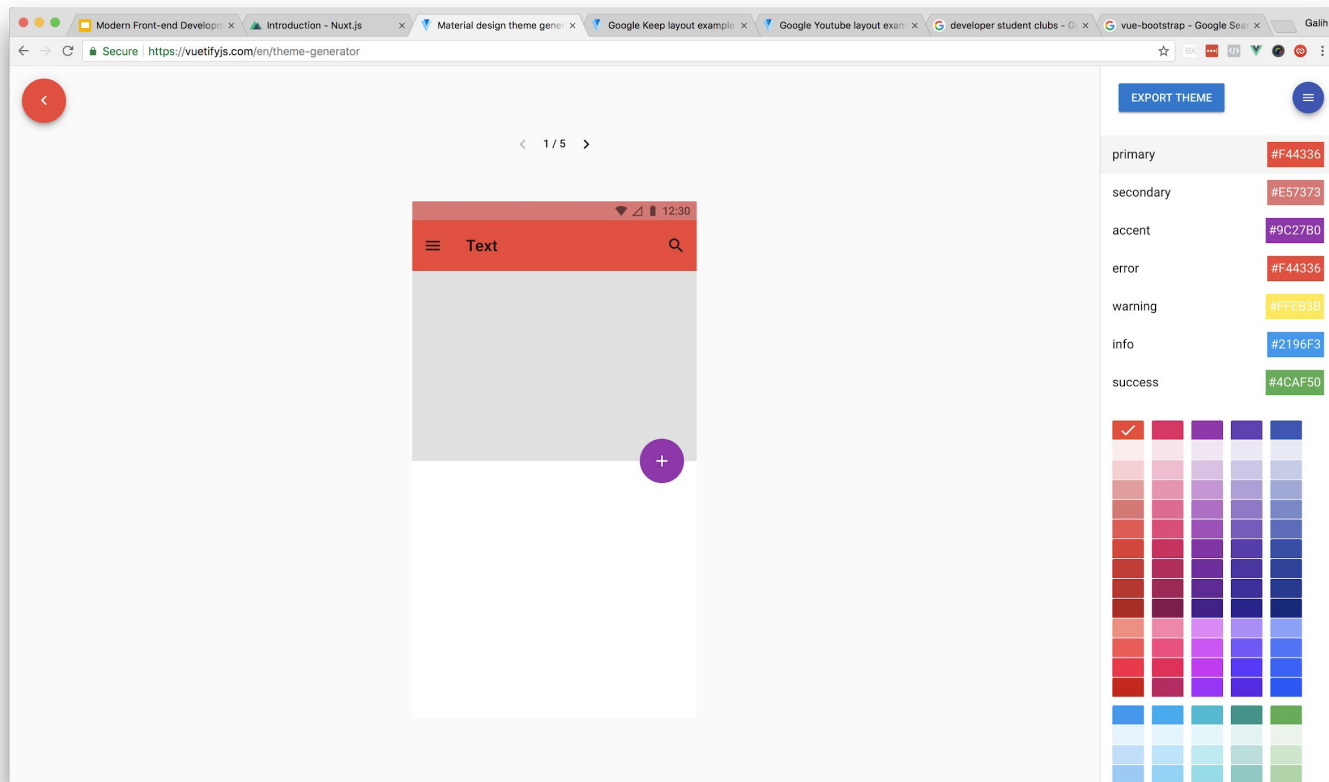


Cordova





Theme Generator



Conclusion



Conclusion

1. Building javascript apps is somewhat **confusing**
2. Vue.JS make it **easier** without sacrificing scalability.
3. Official project generator using **vue-cli**
4. Ready to use **devtools** with zero configuration
5. **SEO** is safe (like Google said)
6. **Nuxt.js** is one of framework that can use server-side rendering capabilities
7. Want to use material design? Use **Vuetify**

Thank....

... one more thing

You can learn that if you **join** Developer Student Clubs

Thank you!



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