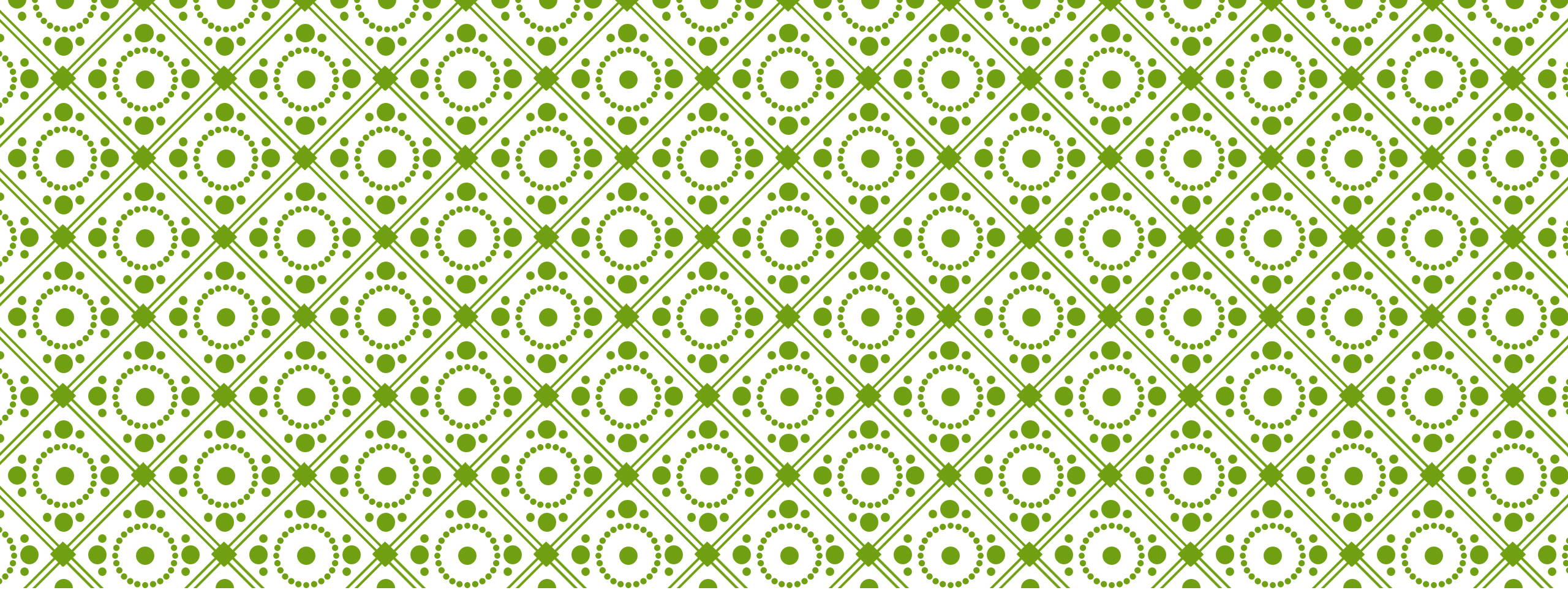


INTRODUCTION TO VUE.JS

Raymond Camden

WHO AM I?

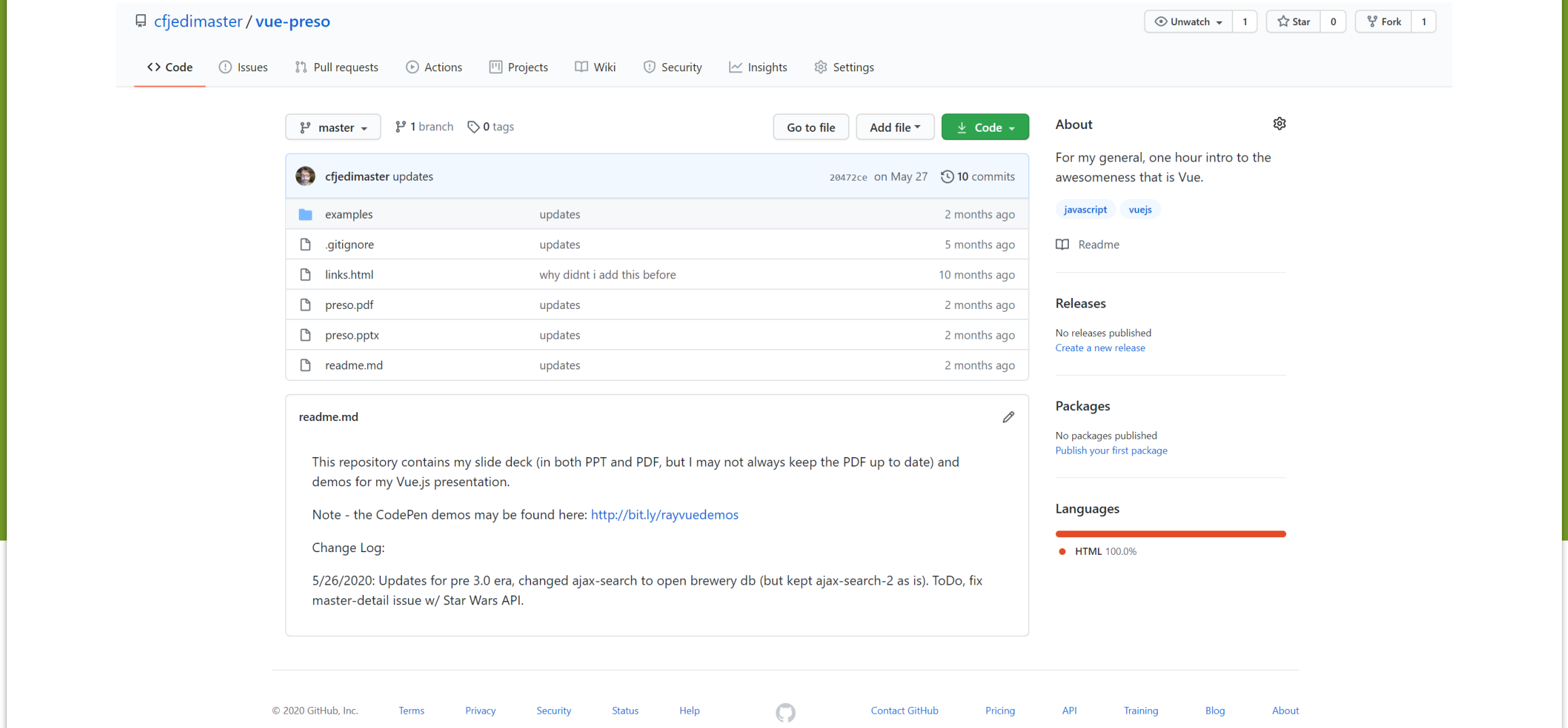
Raymond Camden

Developer Evangelist at HERE

Blogging at raymondcamden.com

Tweeting at raymondcamden

https://github.com/cfjedimaster/vue-preso



cfjedimaster / vue-preso

Unwatch 1 | Star 0 | Fork 1

Code | Issues | Pull requests | Actions | Projects | Wiki | Security | Insights | Settings

master | 1 branch | 0 tags | Go to file | Add file | Code

cfjedimaster updates — 20472ce on May 27 — 10 commits

examples	updates	2 months ago
.gitignore	updates	5 months ago
links.html	why didnt i add this before	10 months ago
preso.pdf	updates	2 months ago
preso.pptx	updates	2 months ago
readme.md	updates	2 months ago

readme.md

This repository contains my slide deck (in both PPT and PDF, but I may not always keep the PDF up to date) and demos for my Vue.js presentation.

Note - the CodePen demos may be found here: http://bit.ly/rayvuedemos

Change Log:

5/26/2020: Updates for pre 3.0 era, changed ajax-search to open brewery db (but kept ajax-search-2 as is). ToDo, fix master-detail issue w/ Star Wars API.

About

For my general, one hour intro to the awesomeness that is Vue.

javascript | vuejs

Readme

Releases

No releases published
Create a new release

Packages

No packages published
Publish your first package

Languages

HTML 100.0%

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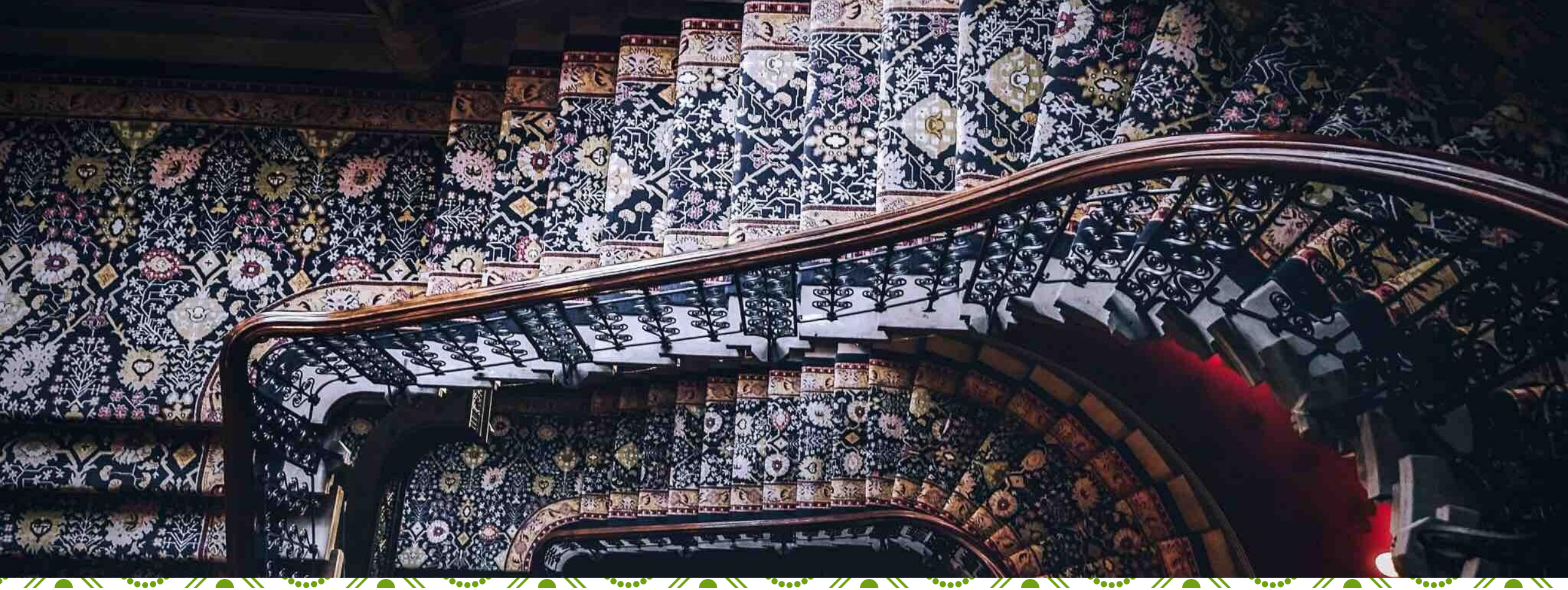
WHY VUE?

Let’s back up…

WHY VUE?

SIMPLE

NO BUILD PROCESS



SCALABLE

QUICK VUE FACTS

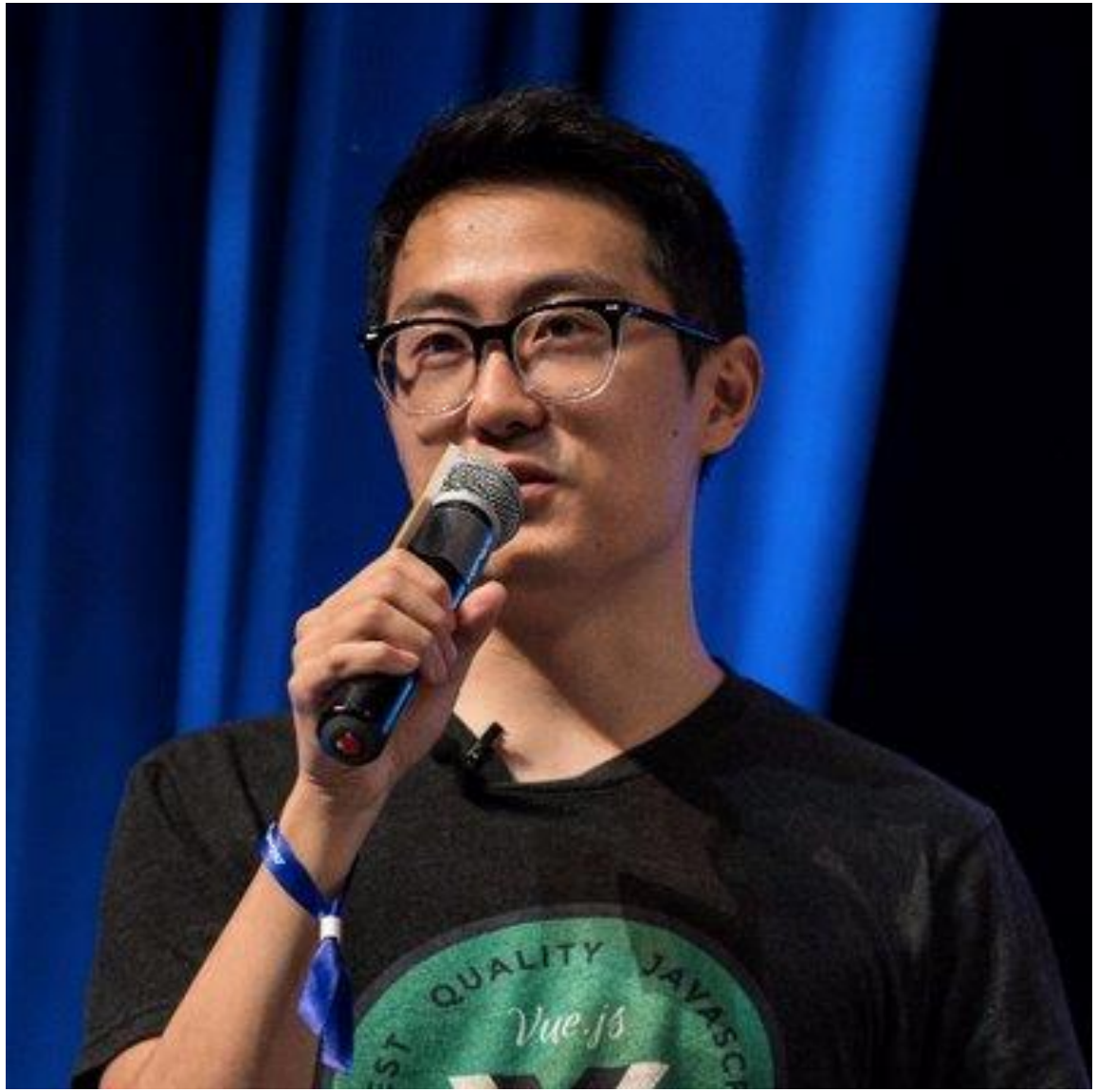
Created by Evan You (@youyuxi)

Released in February of 2014

Currently is version 2.6.11

Main site: vuejs.org

GitHub: https://github.com/vuejs



BRACE YOURSELF
VUE 3 IS COMING
imgflip.com

VUE 3.0

When?

- Really soon now! (RC)

What?

- More later!

Where?

- https://github.com/vuejs/vue-next

WHAT DOES VUE DO?

Two-way binding between your DOM and JavaScript

Template Language (aka Declarative Rendering)

And I know I said this - but it does more. A lot more.

INSTALLATION

npm install

cli install

Download from site

Copy and paste a script tag FTW!!!!!1!

<SCRIPT> STYLE

```
<script src="https://unpkg.com/vue"></script>
```

WRITE SOME CODE!

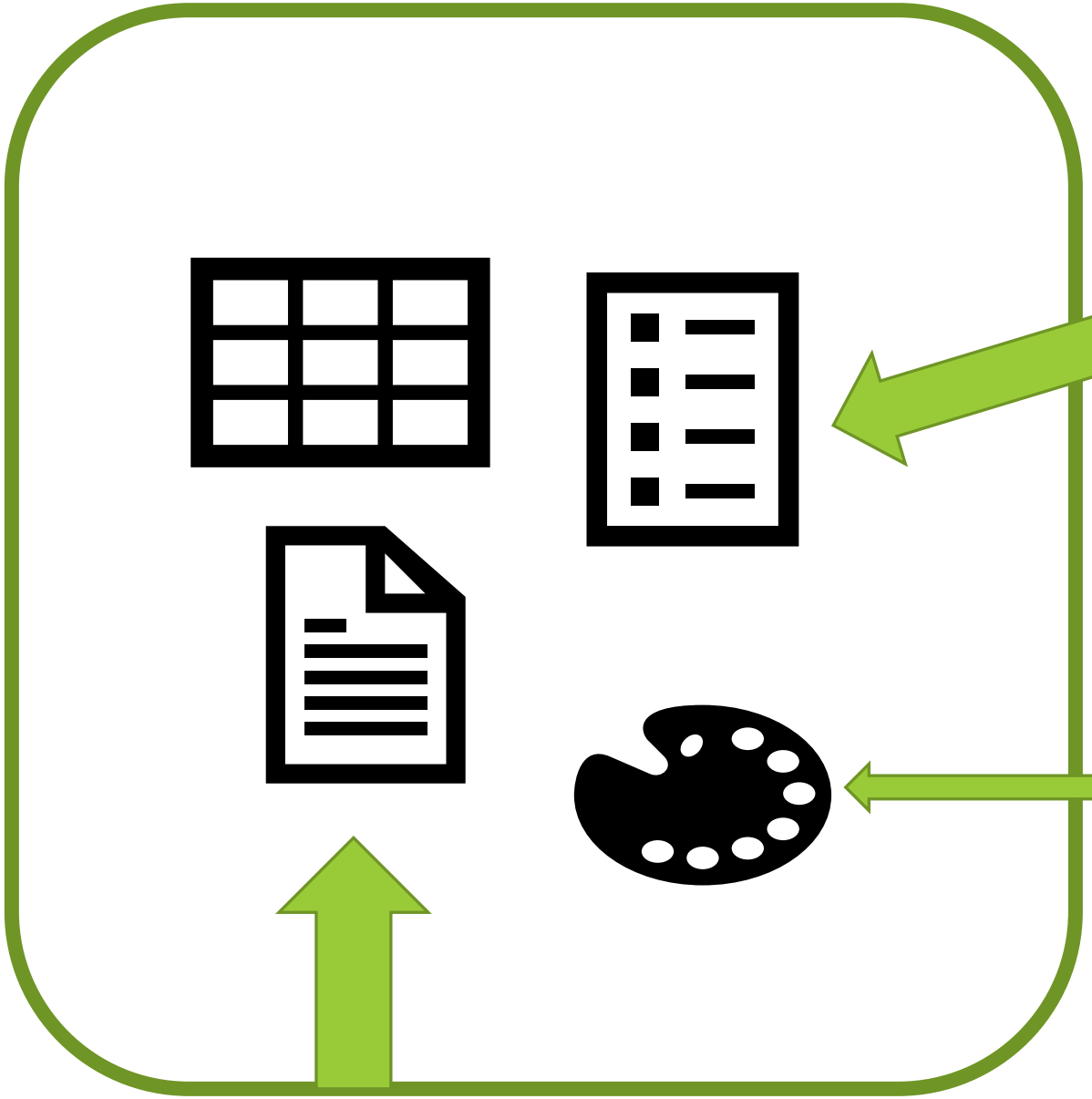
Identify where you're going to render stuff

Setup some data

Render that data

Add events (ie on this do that) and other fancy stuff

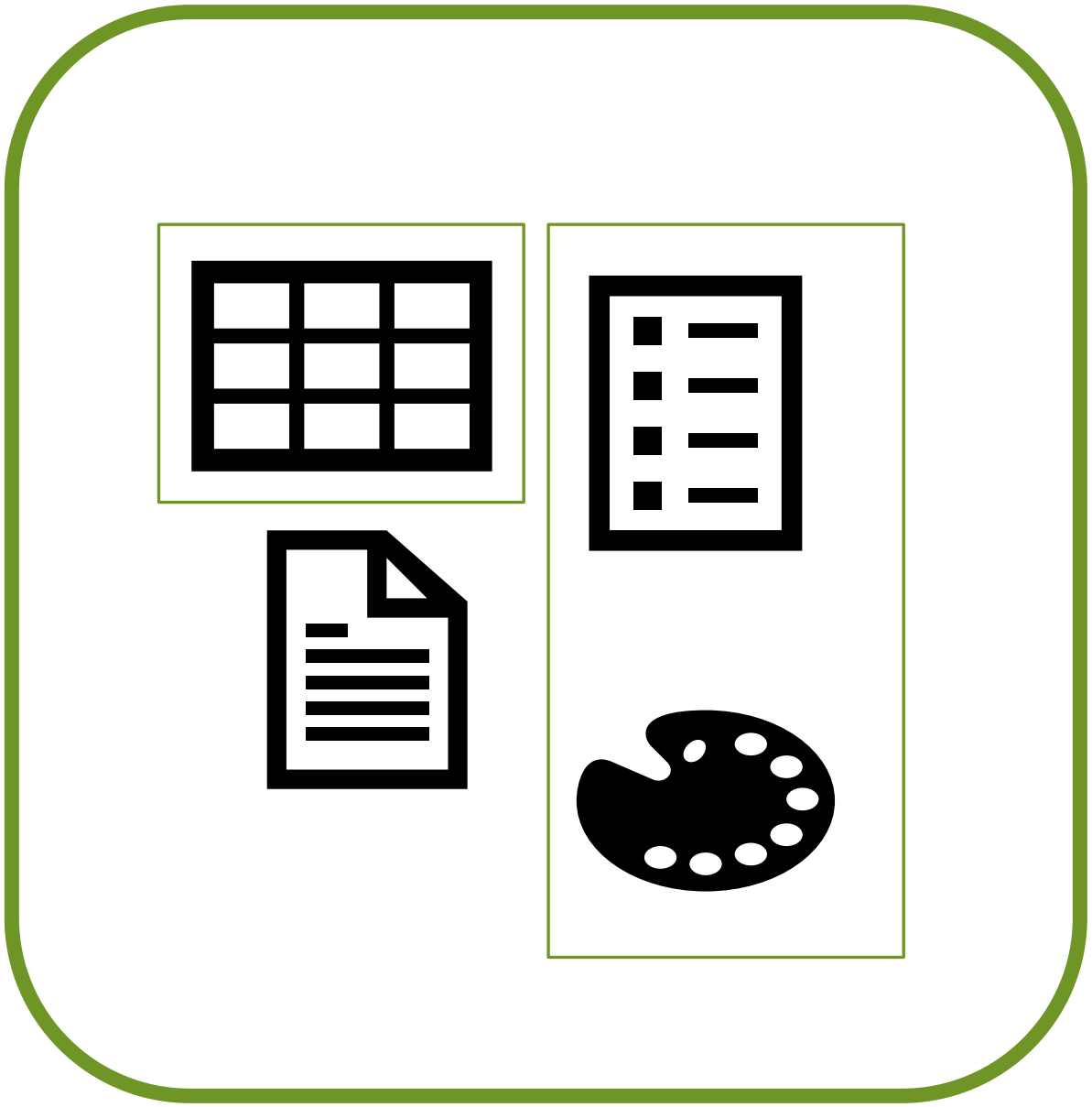
Willy Nilly DOM Manipulation



```
$('#somediv').html('woot');
```

```
$('#someotherdiv').val(2);
```

```
$('#yetanotherdiv').html('<b>This is awesome</b>');
```



Defining Vue's Place...

EXAMPLES

http://bit.ly/rayvuedemos

```
<!-- header stuff -->
<div id="app">
</div>
<!-- footer stuff -->
```

```
var app = new Vue({
    el:'#app',
    data:{
        name:"Ray",
        age:44
    }
});
```

SOME CODE...

```
<!-- header stuff -->
<div id="app">
My name is {{name}} and
I'm {{age}} years old.
</div>
<!-- footer stuff -->
```

```
var app = new Vue({
   el:'#app',
   data:{
      name:"Ray",
      age:44
   }
});
```

SOME MORE CODE...

CODE PEN: FIRST DEMO

```
<div id="app">
  My name is {{name}}.
  <span v-if="age > 40">
  I remember floppies.
  </span>
</div>
```

```
<div id="app">
  My name is {{name}}.
  <span v-if="age > 40">
  I remember floppies.
  </span><span v-else>
  What's a floppy?
  </span>
</div>
```

TEMPLATE DIRECTIVES - CONDITIONALS

CODE PEN: SECOND DEMO

```
<div id="app">
  My name is {{name}}. Here
  are things I like:
  <ul>
    <li v-for="thing in things">
    {{thing}}
    </li>
  </ul>
</div>
```

```
var app = new Vue({
  el:'#app',
  data:{
    name:"Ray",
    things:[
    "cats",
    "star wars",
    "beer"
    ]
  }
});
```

TEMPLATE DIRECTIVES - LOOPS

CODE PEN: THIRD DEMO

WORKING WITH FORM FIELDS

`v-model` links to data field

Works in all kinds of form fields

https://www.raymondcamden.com/2020/01/27/vue-and-form-fields

```
<div id="app">
  <input type="text" id="name" v-model="name"><br/>
  My name is {{name}}.
</div>
```

CODE PEN: FOURTH DEMO

```
var app = new Vue({
  el:'#app',
  data:{
    count:0
  },
  methods:{
    doIt:function() {
      this.count++;
    }
  }
})
```

EVENTS

v-on:click="something"

Defined in methods block of Vue instance

Easy to do modifiers (v-on:submit.prevent)

@click="something"

```
<div id="app">
  <button v-on:click="doIt">Do It</button><br/>
  You did it {{count}} times.
</div>
```

CODE PEN: FIFTH DEMO

ATTRIBUTE BINDING

```
v-bind:attribute=“value”
:attribute=“value”
v-bind:style="{bgcolor:curColor, font-style:textStyle}"
v-bind:class="{highlighted:isActive, color:appStatus}"
```

```
<div id="app">
  <img v-bind:src="src">
</div>
```

CODE PEN: SIXTH DEMO

COMPUTED PROPERTIES

Virtual properties

Property X is based on real data A and B

Defined in the `computed` part of the Vue instance

```
<div id="app">
  <h2>Male Cats</h2>
  <ul>
    <li v-for="cat in cats"
        v-if="cat.gender === 'Male'">{{cat.name}}</li>
  </ul>

  <h2>Female Cats</h2>
  <ul>
    <li v-for="cat in cats"
        v-if="cat.gender === 'Female'">{{cat.name}}</li>
  </ul>

</div>
```

```
var app = new Vue({
  el:'#app',
  data:{
    cats:[
      {"name":"Alred", "gender":"Male"},
      {"name":"Barry", "gender":"Male"},
      {"name":"China", "gender":"Female"},
      {"name":"Dolores", "gender":"Female"},
      {"name":"Enya", "gender":"Female"},
      {"name":"Franke", "gender":"Male"},
      {"name":"Georgia", "gender":"Female"}
    ]
  }
})
```

EXAMPLE (BEFORE)

```
<div id="app">
  <h2>Male Cats</h2>
  <ul>
    <li v-for="cat in maleCats">{{cat.name}}</li>
  </ul>

  <h2>Female Cats</h2>
  <ul>
    <li v-for="cat in femaleCats">{{cat.name}}</li>
  </ul>
</div>
```

```
var app = new Vue({
  el:'#app',
  data:{
    cats:[
      {"name":"Alred", "gender":"Male"},
      {"name":"Barry", "gender":"Male"},
      {"name":"China", "gender":"Female"},
      {"name":"Dolores", "gender":"Female"},
      {"name":"Enya", "gender":"Female"},
      {"name":"Franke", "gender":"Male"},
      {"name":"Georgia", "gender":"Female"}
    ]
  },
  computed:{
    maleCats:function() {
        return this.cats.filter(c => c.gender === 'Male' );
    },
    femaleCats:function() {
        return this.cats.filter(c => c.gender === 'Female' );
    }
  }
})
```

EXAMPLE (AFTER)

CODE PEN: SEVENTH DEMO

VUE LIFECYCLE EVENTS

Events that occur while a Vue instance is doing stuff

beforeCreate, created, beforeMount, mounted, beforeUpate, updated, activated, deactivated, beforeDestroy, destroyed, errorCaptured

https://vuejs.org/v2/api/#Options-Lifecycle-Hooks

EXAMPLE

```
var app = new Vue({
  el:'#app',
  data:{
    films:[]
  },
  created:function() {
    fetch('https://swapi.co/api/films/')
    .then(res => res.json())
    .then(res => {
      this.films = res.results;
    })
  }
})
```

```
<div id="app">
  <ul>
    <li v-for="film in films">
      {{film.title}}
    </li>
  </ul>
</div>
```

CODE PEN: EIGHTH DEMO

QUICK TIP

Hiding the FOUC (Flash of Unstyled Content

Add v-cloak to DOM item "holding" your app

Add a style declaration to hide it.

```
<style>
[v-cloak] {display: none}
</style>
```

```
<div id="app" v-cloak>
```

FULL EXAMPLE: FORM VALIDATION

Do I need to explain this?

Check on submit, report on top

More examples: https://vuejs.org/v2/cookbook/form-validation.html

FULL EXAMPLE: AJAX SEARCH

Accept user input

Send to remote API...

- https://www.openbrewerydb.org/documentation/03-search

Render responses

COMPONENTS

Re-usable objects of awesome-ness

Template + Logic + Style = Component

Also solves one of HTML's most glaring problems...

<kitten>

EXAMPLE

```
Vue.component('kitten', {
  template:'<img alt="" :src="url">',
  data() {
    return {
    }
  },
  computed:{
    url:function() {
      let theUrl = 'http://www.placekitten.com/'+this.width+'/'+this.height;
      return theUrl;
    }
  },
  props:{
    height:{
      default:400,
    },
    width:{
      default:400
    }
  }
});
```

EXAMPLE

```
<div id="app">
  <h2>Default</h2>
  <kitten></kitten>
  <p>
  <h2>H/W</h2>
  <kitten width="299" height="499"></kitten>
</div>
```

CODE PEN: NICOLAS-CAGE

COMPONENT EXAMPLES

Google Static Maps: https://www.npmjs.com/package/vue-static-map

Bootstrap: https://bootstrap-vue.js.org/

Vuetify: https://vuetifyjs.com/en/

```
<b-tabs>
  <b-tab title="first" active>
    <br>I'm the first fading tab
  </b-tab>
  <b-tab title="second" >
    <br>I'm the second tab content
  </b-tab>
  <b-tab title="disabled" disabled>
    <br>Disabled tab!
  </b-tab>
</b-tabs>
```

MORE COMPONENT STUFF

You can pass data in from the parent

You can listen for events from the component

"Sub children" (Slots)

```
<mything>

  <template v-slot:thankyou>
  Hey, I want to <i>really</i> thank you for taking
  the time to do whatever. We here at Mega Corp truly
  care that you took the time. Oh, and here, please
  take a kitten!
  </template>

</mything>
```

FULL EXAMPLE: PLACEHOLDER

Create an <image-placeholder> tag

Use placeholder.com (or any other service)

Accept height and width (with defaults)

WELCOME TO APP COUNTRY...

THE CLI

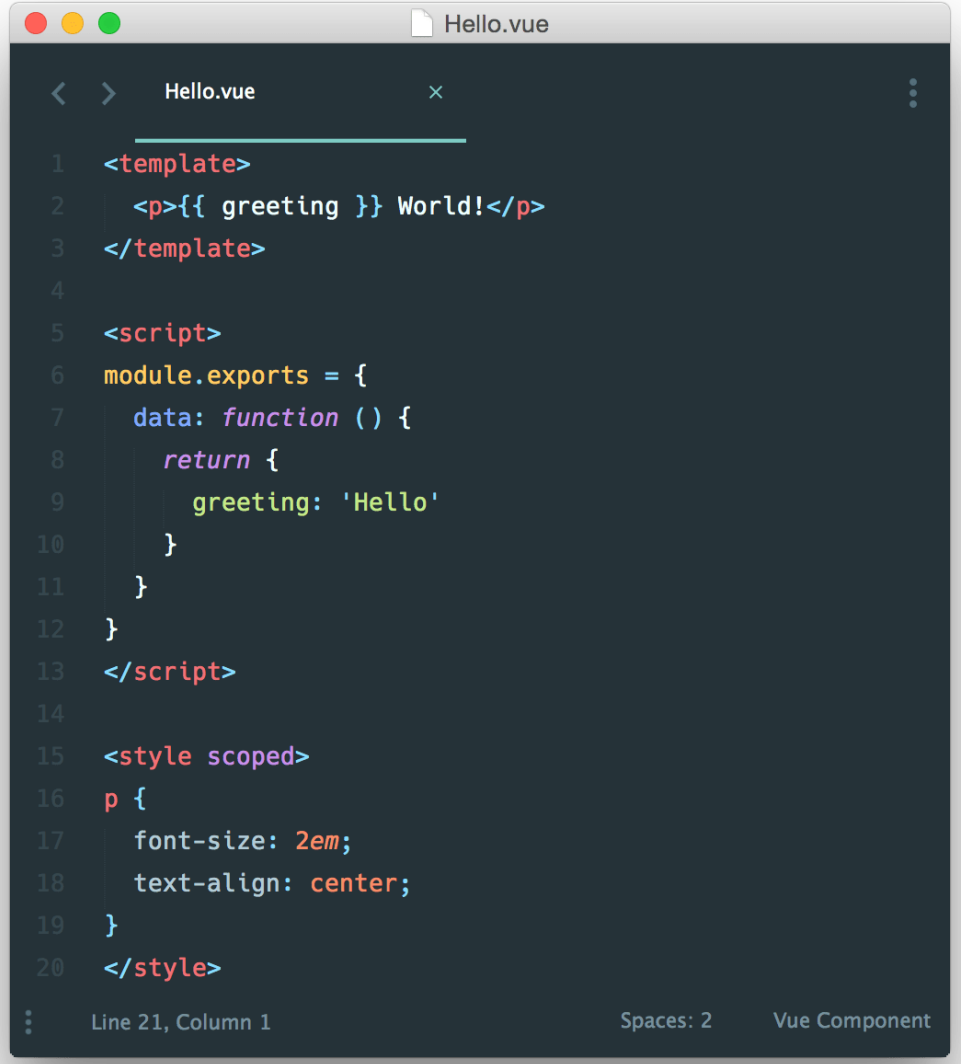
Scaffolding tool

Focused on SPAs (but also does prototyping well)

https://cli.vuejs.org

Supports Single File Components

SINGLE FILE COMPONENTS



WALKTHROUGH

FYI, install via: npm i -g @vue/cli

Then: vue create foo

Or: vue serve (with App.vue)

ROUTING

Not a part of Vue

Official library: vue-router (https://router.vuejs.org)

Maps URL paths to components

Supports dynamic paths

EXAMPLE (FROM THE DOCS)

```
const routes = [
  { path: '/foo', component: Foo },
  { path: '/bar', component: Bar }
]

const router = new VueRouter({
  routes // short for `routes: routes`
});

const app = new Vue({
  el:'#app',
  router
});
```

EXAMPLE (STILL FROM THE DOCS)

```
<div id="app">
  <h1>Hello App!</h1>
  <p>
    <router-link to="/foo">Go to Foo</router-link>
    <router-link to="/bar">Go to Bar</router-link>
  </p>
  <router-view></router-view>
</div>
```

CODE PEN: EXAMPLE OF ROUTING IN VUE

FULL EXAMPLE: MAIN/DETAIL

First page - list of data

Second page - detail

STATE MANAGEMENT

Solves a problem you may not have!

One component, one set of data = easy

Two components, two set of data = mostly easy

Many components, one set of data = um....

VUEX

(Another) library for Vue (deeply integrated)

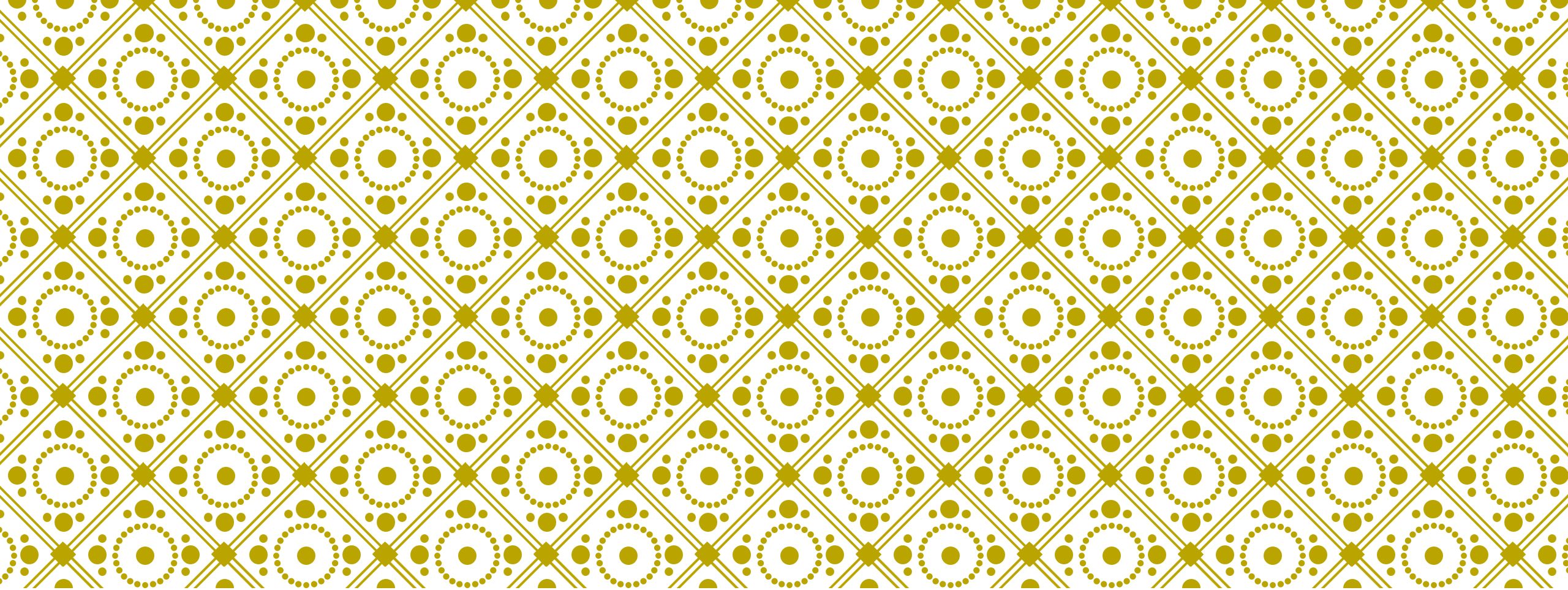
"Store"

Components can read from the store

Components cannot change data in the store (directly)

VUEX – LEARN MORE

https://vuex.vuejs.org/



3.0 - WHAT'S NEXT?

VUE 3.0

Faster, smaller

- Virtual DOM rewrite, native Proxy, 100% faster component instance initialization
- 20kb to roughly half (gzipped)

Multiple v-model support

- <MyThing v-model:rank="userRank" v-model:title="userTitle" />

Suspense

- Fallback support (ie, show this while loading)

Portals

- Render content elsewhere, uses a <Teleport> tag

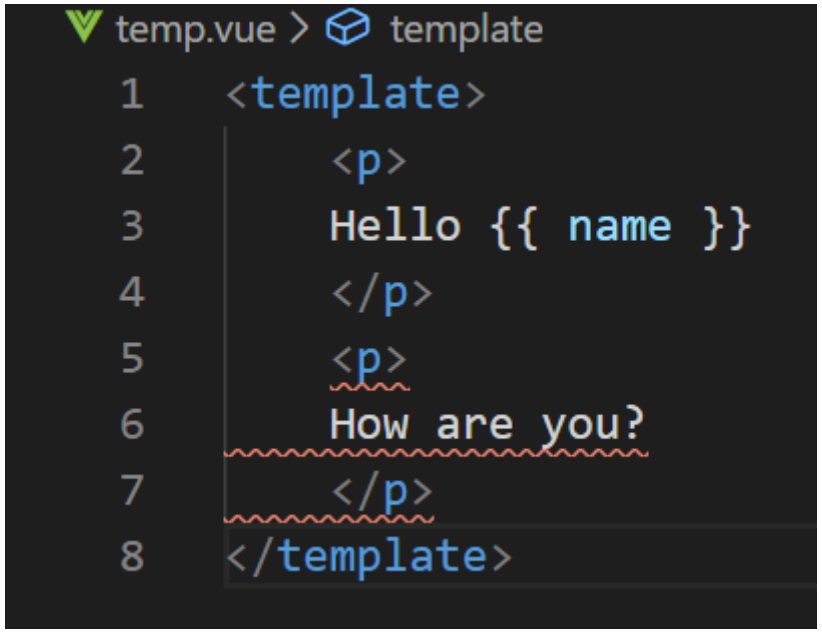
VUE 3.0

TypeScript Support

- Vue itself - all in TS

No need for "wrapper" divs in template blocks (aka "Fragments")

VUE 3.0


temp.vue > template
1 <template>
2
3 Hello {{ name }}
4
5
6 How are you?
7
8 </template>

VUE 3.0

temp.vue > ...

```
1   <template>
2       <div>
3       <p>
4       Hello {{ name }}
5       </p>
6       <p>
7       How are you?
8       </p>
9       </div>
10  </template>
```

VUE 3.0

VUE 3.0

TypeScript Support

- Vue itself - all in TS

No need for "wrapper" divs in template blocks (aka "Fragments")

Mounting changes to global libraries (add stuff to your Vue app, not global Vue object)

Composition API

- OPTIONAL new way of writing components
- Better for larger, complex architectures

Official repo: https://github.com/vuejs/vue-next

VUE 3 - RIP

Filters (deprecated)

render function (changed)

Event Bus (deprecated)

Photo by Charles Deluvio on Unsplash

VUE 3.0 - LEARN MORE

Dan Vega on Vue 3 - https://www.youtube.com/watch?v=HmdKqXP8JR8

Upgrade guide - https://dev.to/blacksonic/the-vue-3-upgrade-guide-4dc4

Roundup - https://madewithvuejs.com/blog/vue-3-roundup

BUT WAIT — THERE'S MORE!

EVEN MOAR!!!

Devtools Extension (Chrome, Firefox, Electron, Safari)

- https://github.com/vuejs/vue-devtools

Sarah Drasner on CSS-Tricks: https://css-tricks.com/intro-to-vue-1-rendering-directives-events/

Vue docs has a cool cookbook: https://vuejs.org/v2/cookbook/

Newsletters:

- https://news.vuejs.org
- https://vuejsdevelopers.com/newsletter/

My Stuff: https://www.raymondcamden.com/tags/vuejs

STUFF I DIDN'T COVER

Unit Testing (https://vuejs.org/v2/guide/unit-testing.html)

Transitions (https://vuejs.org/v2/guide/transitions.html)

Custom Directives (https://vuejs.org/v2/guide/custom-directive.html)

More....

ANY QUESTIONS?