VueDC

(@vuejsdc)

Wifi: ---

Password: ---

GitHub Repo: https://github.com/VueDC/vuejs-101-the-essentials

CodePen Collection: https://codepen.io/collection/DmRKRB/

Slides: https://slides.com/bencodezen/vuejs-101-the-essentials/

Announcements

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- Sponsor - Politico

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Vue.js 101

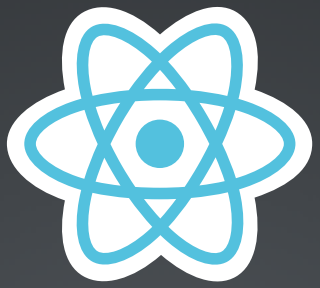
The Essentials of Vue.js

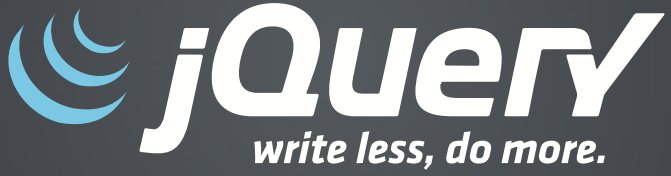
December 6th, 2017

Ben Hong
Senior UI Engineer at Politico
@bencodezen

Slides: https://slides.com/bencodezen/vuejs-101-the-essentials

What is Vue.js?





ember®

Knockout.

NUMBER OF DAYS SINCE
THIS DEPARTMENT
HAS WORKED
DAYS
WITHOUT
A LOST TIME
ACCIDENT
AVOID ACCIDENTS
LAST NEW JS FRAMEWORK
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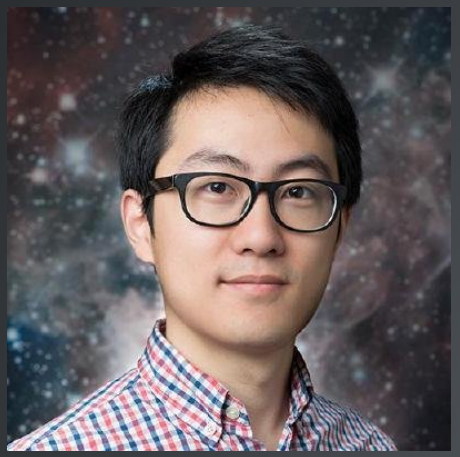
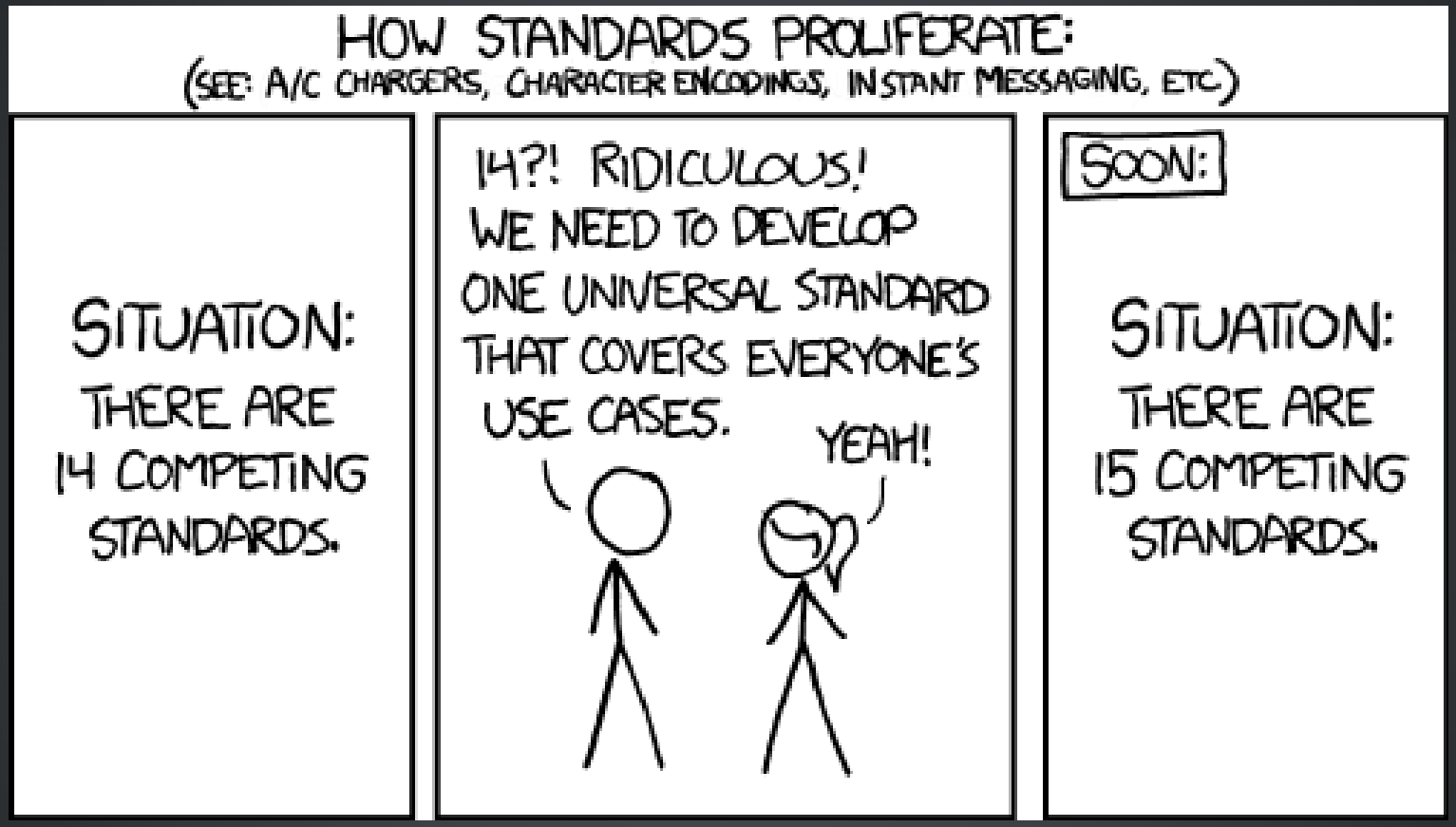


Evan You (@youyuxi)

“ After hand-rolling many [UI prototypes] with vanilla JavaScript and using Angular 1 for a few, I wanted something that captured the declarative nature of Angular's data binding, but with a simpler, more approachable API.

Vue.js



Credit - xkcd: Standards (https://xkcd.com/927/)

What makes Vue.js so special?

Developed and maintained by Google

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- Easy to get something up and running pretty quickly

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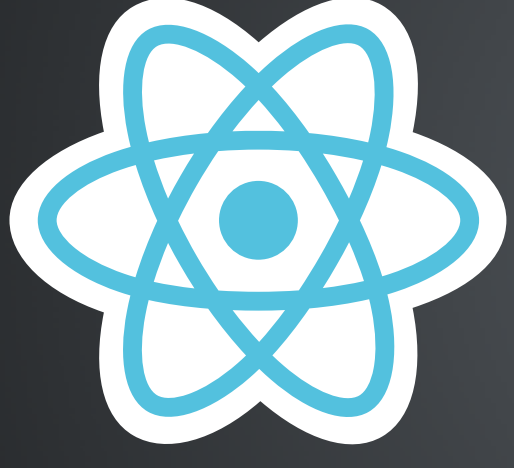
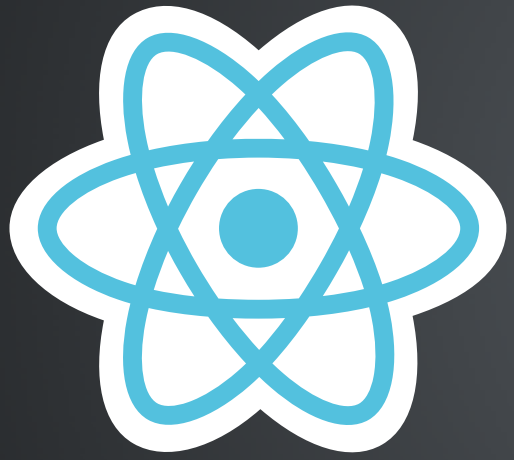
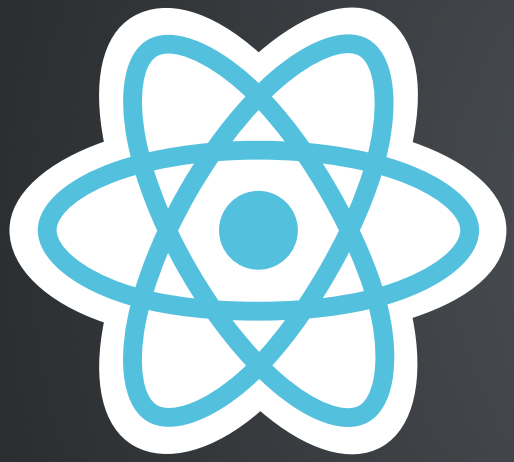
- Easy to get something up and running pretty quickly
- Most of what was happening seemed more like magic
- Larger footprint in web performance
- More opinionated on how you should build your app

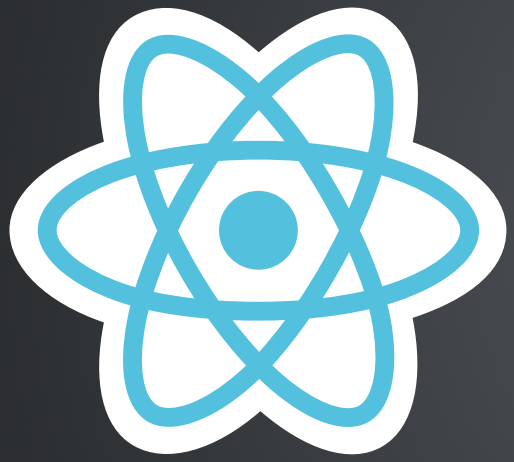


Developed by Facebook and recently granted an MIT license





- Developed by Facebook and recently granted an MIT license
- Great performance due to the use of the virtual DOM



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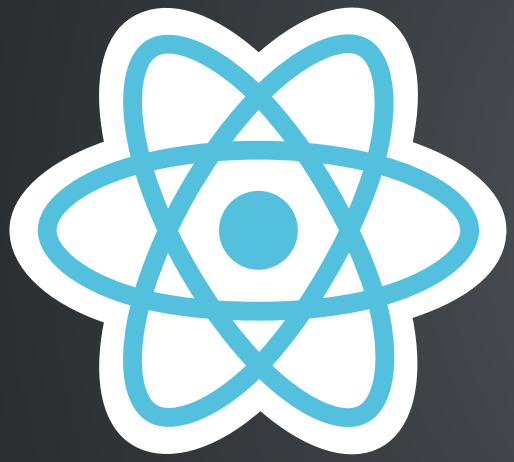

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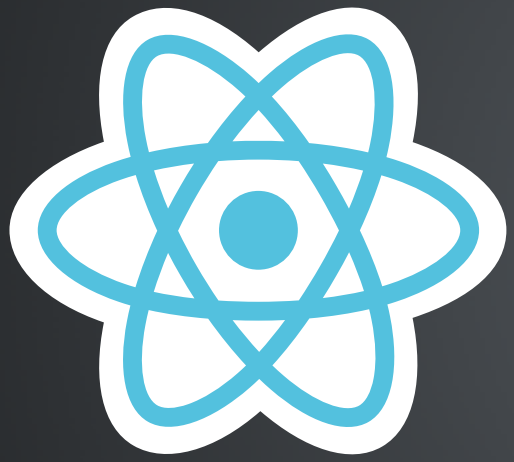

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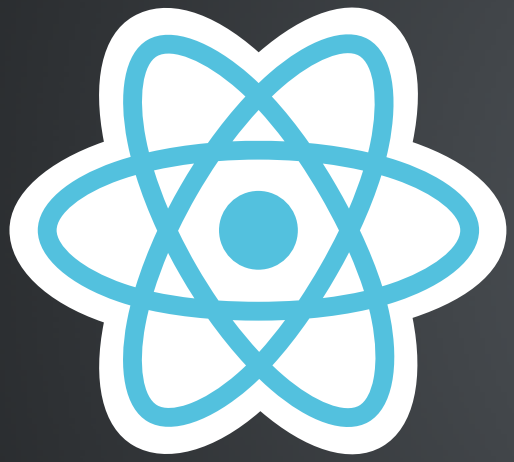

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- Great performance due to the use of the virtual DOM
- You got a lot better at vanilla JavaScript very quickly
- High learning curve even just to get started
- Unfriendly to non-JavaScript developers (i.e., JSX)
- High pace of development resulting in unexpected bugs

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- An open-source framework with no corporate influence
- Takes the best of both worlds and brings them together
- It does not alienate non-JavaScript developers
- Great performance that is on par if not better than React.js
- Flexible and accommodating to how you prefer to build apps
- Smaller team and community compared to React / Angular

NO WAY!
TELL ME MORE!
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The Essentials of Vue.js

Simple Vue.js Setup

It's as easy as adding jQuery

Start: https://codepen.io/BenCodeZen/pen/rYgGdR

Final: https://codepen.io/BenCodeZen/pen/GOarKO

Step 1: Initialize a Vue instance

```
const app = new Vue()
```

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```
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```

Let's pretend we're planning a new trip!

```
const adventure = new Trip()
```

Mapping Out the Important Details

```
const adventure = new Trip({
    destination: 'Diagon Alley',
    luggage: {
        name: 'Mr. B. Hong',
        house: 'Ravenclaw',
        wand: '12.5" larch wood w/ Dragon heartstring core',
        wallet: {
            galleons: 12,
            sickles: 38,
            knuts: 274
        }
    },
    thingsToDo: {
        visitGringotts,
        visitDiagonAlley,
        drinkButterbeer,
        eatAtTheLeakyCauldron
    }
})
```

Step 2: Configure Your "Destination"

```
<!-- Start with an HTML element that will serve as
the app's destination -->

<div id="diagon-alley"></div>
```

```
// This is the most important configuration
// Mistype this one and nothing will ever happen 😱

const adventure = new Vue({
    el: '#diagon-alley'
})
```

Step 3: Configure Your "Luggage"

```
// This where all your "luggage" items are stored

const adventure = new Vue({
    el: '#diagon-alley',
    data: {
        name: 'Mr. B. Hong',
        house: 'Ravenclaw',
        wand: '12.5" larch wood w/ Dragon heartstring core',
        wallet: {
            galleons: 12,
            sickles: 38,
            knuts: 274
        }
    }
})
```

Step 4: Configure Your "Things To Do"

```
// This where all your instructions are stored

const adventure = new Vue({
    el: '#diagon-alley',
    data: {
        name: 'Mr. B. Hong',
        house: 'Ravenclaw',
        wand: '12.5" larch wood w/ Dragon heartstring core',
        wallet: {
            galleons: 12,
            sickles: 38,
            knuts: 274
        }
    },
    methods: {
        visitGringotts() { ... },
        visitDiagonAlley() { ... },
        drinkButterbeer() { ... },
        eatAtTheLeakyCauldron() { ... }
    }
})
```

Let's see it in action!

Start: https://codepen.io/BenCodeZen/pen/MOdOjN

Final: https://codepen.io/BenCodeZen/pen/MOdoQY

Let's Talk About Directives

Directives are the part of
Vue.js that are a bit magical...

What are directives exactly?

They are Vue specific methods that allow you to accomplish common goals without worrying how it is implemented.

- v-if
- v-else
- v-else-if
- v-show
- v-for
- v-bind
- v-on
- v-model
- v-html
- v-text
- v-pre
- v-cloak
- v-once
- v-class
- v-style
- v-attr

v-if
v-else
v-else-if

v-show

v-if
v-else
v-else-if

" It ensures that event listeners and child components inside the conditional block are properly destroyed and re-created during toggles."

v-show

" The element is always rendered regardless of initial condition, with CSS-based toggling.

Sam Saccone
@samccone

Following

99.7% of software development in one requirement

A user should be able to view a list of items.

10:36 AM - 1 Dec 2017

610 Retweets **1,834** Likes

26 610 1.8K

v-for

Allows us to "render a list of items based on an array [or object]."

```
<!-- Given the data model on the right -->
<ul>
    <li v-for="house in Hogwarts">
        {{ house }}
    </li>
</ul>


<!-- It will render to -->
<ul>
    <li>Ravenclaw</li>
    <li>Hufflepuff</li>
    <li>Slytherin</li>
    <li>Griffindor</li>
</ul>
```

```
// Given this sample Vue instance
new Vue({
    ...
    data: {
        Hogwarts: [
            'Ravenclaw',
            'Hufflepuff',
            'Slytherin',
            'Gryffindor'
        ]
    }
})
```

v-bind

Allow us to manipulate HTML attributes with dynamic data

```
<!-- The long form -->
<div v-bind:class="{ active: isActive }">...</div>

<!-- The common shortcut -->
<div :class="{ active: isActive }">...</div>

<!-- If isActive is true, it will render -->
<div class="active">...</div>
```

v-on

Allow us to attach methods

to common events

```
<!-- The long form -->
<div v-on:click="alert('Alohomora!')">...</div>

<!-- The common shortcut -->
<div @click="alert('Alohomora!')">...</div>
```

v-model

Allows us to use two-way data binding

```
<input v-model="name" type="text" id="name" />

<script>
new Vue({
    ...
    data: {
        name: 'Sirius Black'
    }
})
</script>
```

Quick Break!

Final Coding Exercise

Start: https://codepen.io/BenCodeZen/pen/YEbEgv

Fina: https://codepen.io/BenCodeZen/pen/gXyjwj

Enough talk.

Let's write some code!

Final Coding Exercise

Start: https://codepen.io/BenCodeZen/pen/YEbEgv

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Exercise 1:
Dynamic Data

1. Replace 'Static' with the dynamic data property noun

2. Wire up input#noun to dynamically update noun

3. Use dynamic inline-styles to define backgroundImage on div#image-wrapper that uses the data property imageUrl

4. Wire up input#background-image to dynamically update imageUrl

Exercise 2:
Directives & Methods

1. Toggle aside#side-menu's visibility when you click on button#toggle-menu

2. **Challenge:** Write a method so that div#template-wrapper's position is dynamically updated when you click on div#image-wrapper.

“ Gives me what I want when I need it, and then it gets out of my way.

– Sarah Drasner (@sarah_edo)

Congratulations!

You've worked on
three different Vue applications!

But wait... there's more!

Concepts

- Computed Properties
- Filters
- Props
- Mixins
- Modifiers
- Lifecycle Methods
- State Management
- Custom Directives
- Routing
- Animations

Workflow

- App Architecture w/ Vue.js
- Testing with Vue.js
- Managing Styles w/ Vue.js
- Animate All Things w/ Vue.js
- Popular Vue.js Tools
  - vue-cli
  - vuex
  - vetur
  - Vue DevTools

Sneak Peak at Vue.js 201

Additional Resources

- **Official Vue.js Docs**
  - https://vuejs.org/
- **FEM: Introduction to Vue.js**
  - https://frontendmasters.com/courses/vue/
- **Udemy: Vue.js Courses**
  - https://www.udemy.com/courses/search/?q=vuejs
- **Vue.js Discord Channel**
  - https://vue-land.js.org/

Footnotes

- **Evan You's GitHub Story**
  - https://github.com/open-source/stories/yyx990803

Thank you!

@bencodezen