

Complete Intro to Vue 3

Frontend *Masters*

Ben Hong

@bencodezen





DAY ONE



Welcome!



November 12, 2017

TM & © Universal Studios and Amblin



A little about me

- Senior Staff DX Engineer at Netlify
- Vue.js Core Team Member
- Nuxt Ambassador
- Vue Mastery Instructor
- Google Developer Expert

A little about you

Name

What are you most excited
to learn about today?

Who is this workshop for?

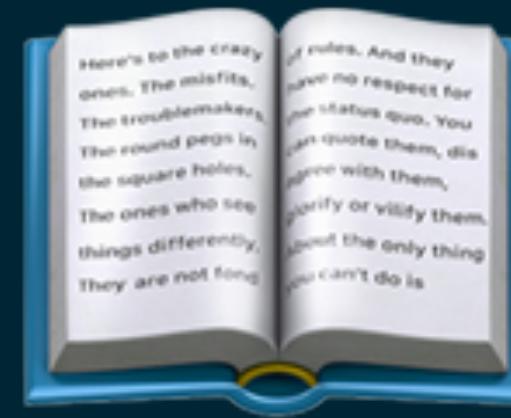
People looking to get started with their first JavaScript framework for building user interfaces.

And everyone in between...

People who want to learn about what makes Vue special and gain the skills to start building with it on their next project.

Things to know for this workshop

- Familiarity with HTML, CSS & JS
- Familiarity with a code editor
- Familiarity with a terminal
- Familiarity with browser dev tools
- Basic knowledge of git and npm



Workshop Resource

<https://github.com/bencodezen/complete-intro-to-vue-3-workshop>

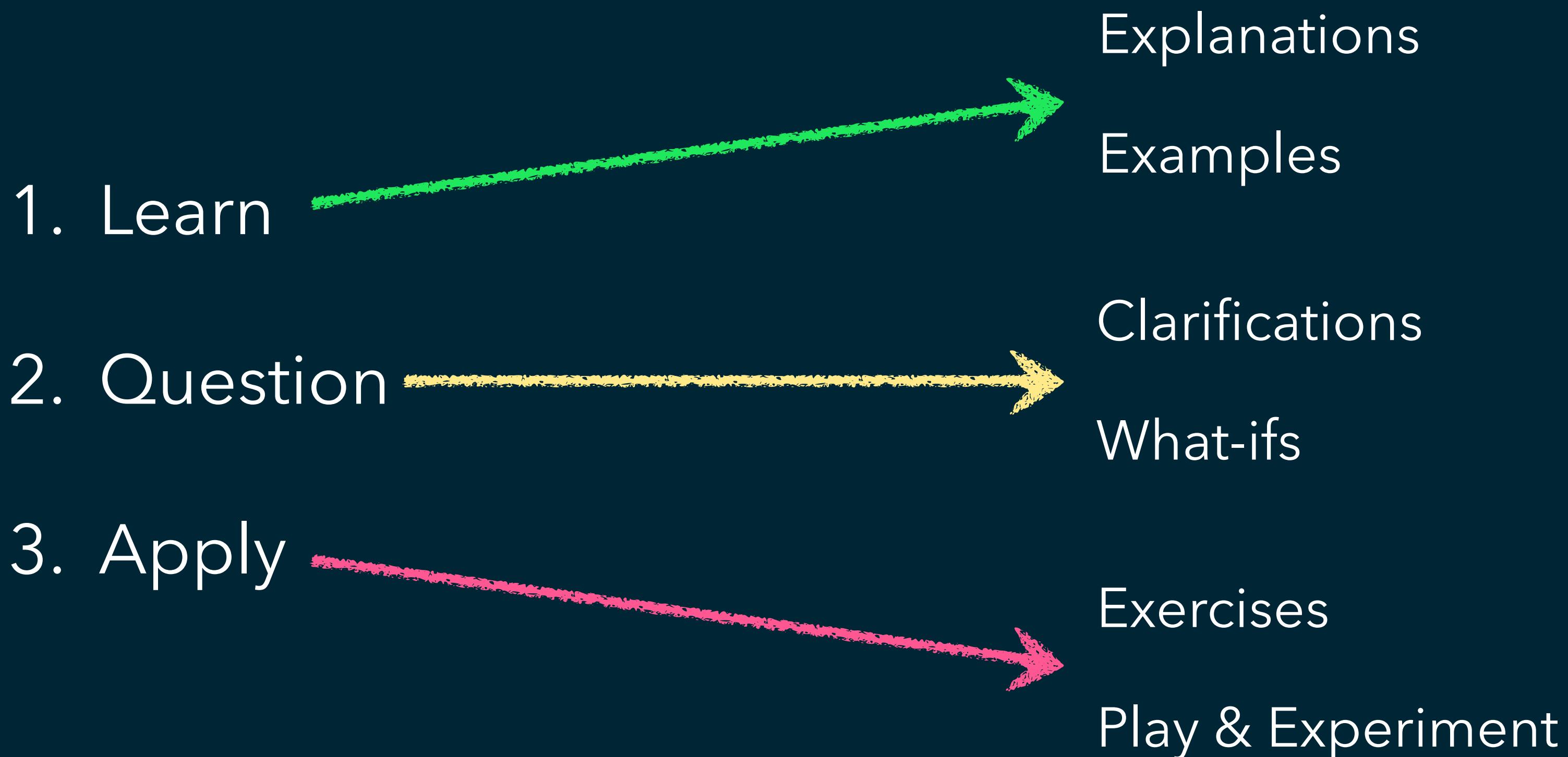


What You Can Expect

Workshop Format

1. Learn
2. Question
3. Apply

Workshop Format



PARTICIPATION TIPS

Raise your hand for **questions** at any time!

There are no wrong questions.

This workshop is designed to be interactive.

PARTICIPATION TIPS

All slides and examples will be public.

No need to hurry and copy down examples.

PARTICIPATION TIPS

All code is **compromise**.

I encourage you to question and/or disagree.

Your opinion and experience matter too.

Choose what works best for you and your team.



Schedule - Day 1

Time Slot (CDT)	Event
9:30AM – 10:45AM	Essentials (Pt. 1)
11:00AM – 11:15AM	☕ Coffee Break ☕
11:15AM – 12:00PM	Essentials (Pt. 2)
12:00PM – 1:00PM	🥞 🍲 {{ meal }} �amen 🥗
1:00PM – 2:15PM	Fundamentals (Pt. 1)
2:15PM – 2:30PM	🍪 Snack Break 🍹
2:30PM – 4:00PM	Fundamentals (Pt. 2)
4:00PM – 4:15PM	Deploying Your App
4:15PM – 4:30PM	Closing Thoughts + Q&A



Introduction



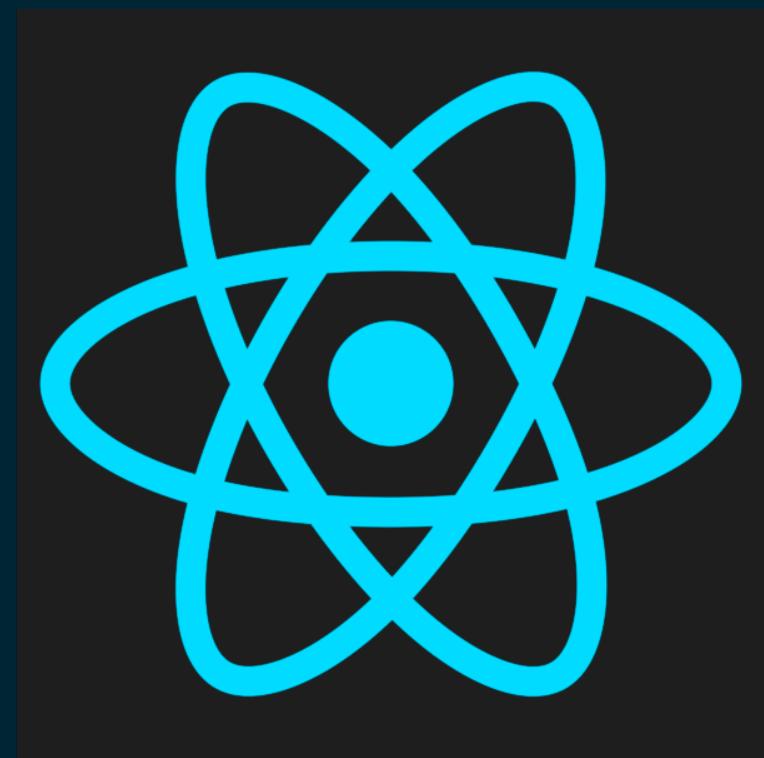
Story Time



Javascript



Java





What is Vue?

What is Vue?

A JavaScript framework for
building web user interfaces.



Why Vue.js?

1

Approachable

Approachable

Builds on top of standard HTML, CSS
and JavaScript with intuitive API and
world-class documentation.

2

Performant

Performant

A reactive, compiler-optimized rendering system that rarely requires manual optimization.

3

Versatile

Versatile

A rich, incrementally adoptable ecosystem that scales between a library and a full-featured framework.

4

Community First

5

Enterprise Proven

← → C developer.apple.com/tutorials/swiftui/ 🔒

Apple Developer News Discover Design Develop Distribute Support Account Q

SwiftUI Tutorials

Introducing SwiftUI

SwiftUI is a modern way to declare user interfaces for any Apple platform. Create beautiful, dynamic apps faster than ever before.

⌚ 4hr 25min Estimated Time

Get started

```
/* See LICENSE folder for this sample's licensing information.

Abstract:
A view showing featured landmarks above a list of landmarks grouped by category.

import SwiftUI

struct CategoryHome: View {
    @EnvironmentObject var modelData: ModelData
    @State private var showingProfile = false

    var body: some View {
        NavigationView {
            List {
                PageView(pages: modelData.features.map { FeatureCard(landmark: $0) })
                    .aspectRatio(3 / 2, contentMode: .fit)
                    .listRowInsets(EdgeInsets())
                    .ForEach(modelData.categories.keys.sorted(), id: \.self) { key in
                        CategoryRow(categoryName: key, items: modelData.categories[key]!)
                    }
                    .listRowInsets(EdgeInsets())
                    .listStyleInsetListStyle()
                    .navigationTitle("Featured")
                    .toolbar {
                        Button(action: { showingProfile.toggle() }) {
                            Image(systemName: "person.crop.circle")
                                .accessibilityLabel("User Profile")
                        }
                    }
            }
        }
    }
}
```

Create for everyone

Find your next job at Google.

Role

Where?

Software engineer

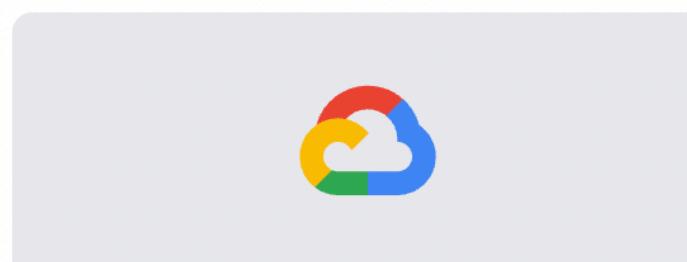
in

Los Angeles

Search

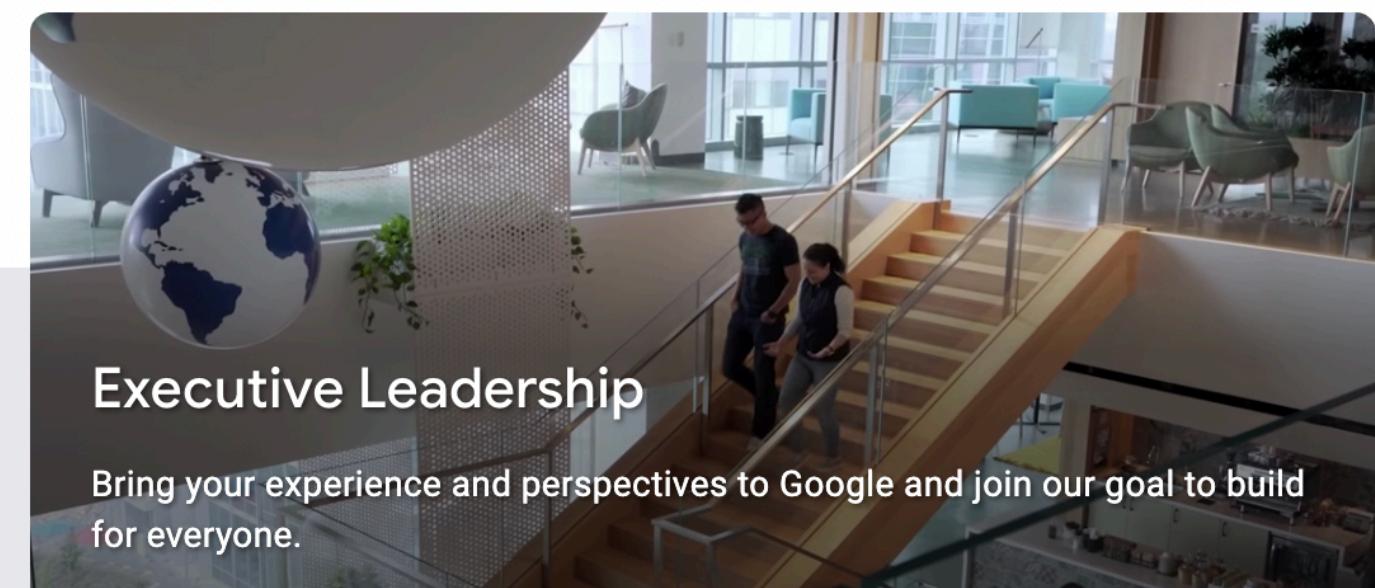


SPOTLIGHT



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SIGN IN

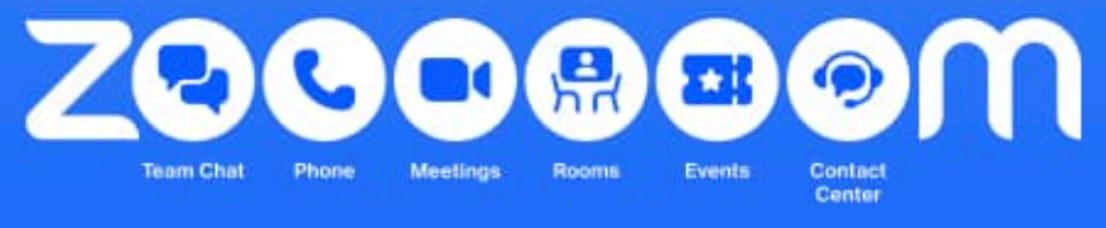
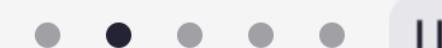
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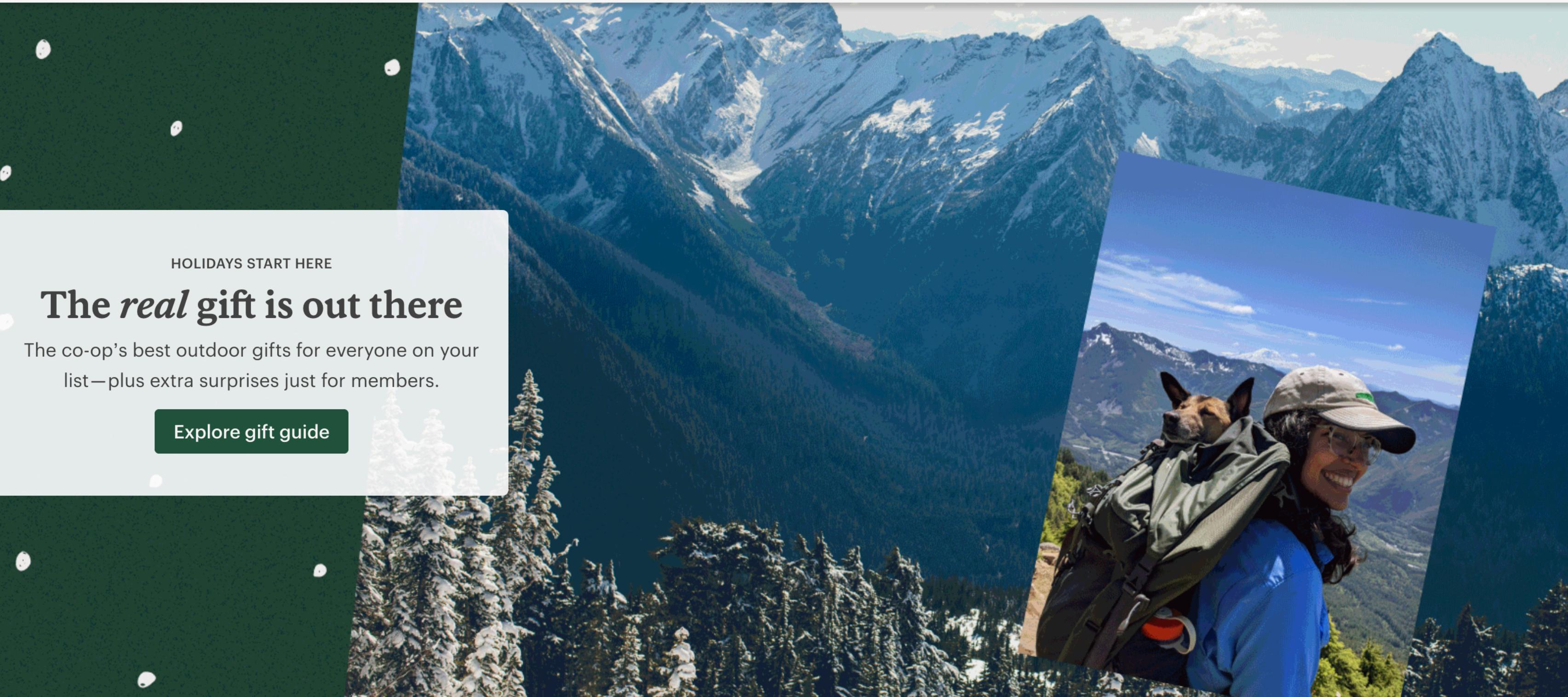
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Search for great gear & clothing

 My REI
Find your store

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MAKEUP

SKIN CARE

HAIR COLOR

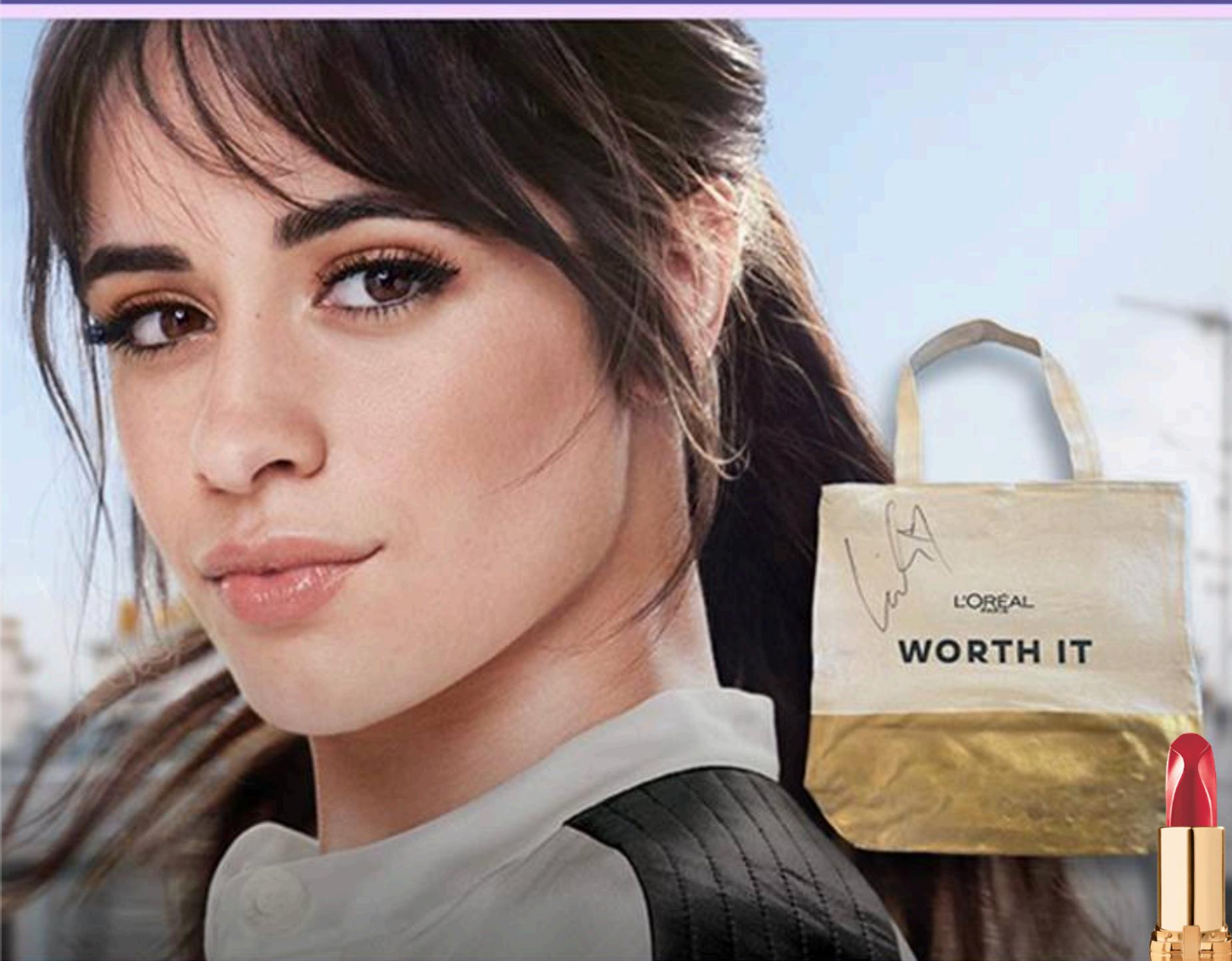
HAIR CARE & STYLING

MEN'S

BEAUTY MAGAZINE

DEALS & STEALS

DEALS & SAMPLES

Which Halloween Look Should You Try This Year? Take our quiz X**VOTING OPEN THROUGH NOVEMBER 30**Reds Of Worth Satin
Lipstick With
Gold Case1.5% Hyaluronic Acid
+ 1% Caffeine Eye
Serum1.5% Pure Hyaluronic
Acid SerumHyaluron Plump
Hydrating Shampoo,



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Vue.js

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Beginning

History

[Current Status](#)[Guidelines](#)[Follow MediaWiki coding conventions](#)[Internationalization](#)[Other topics](#)[Projects using Vue.js](#)[Resources](#)[Further reading](#)

[Vue.js](#) is the Wikimedia Foundation's official choice for adoption as the future JavaScript framework for use within MediaWiki. The usage of Vue.js within MediaWiki remains experimental, and it is not ready for widespread use. This page documents guidelines, best practices, and resources for using Vue within MediaWiki. This is not a general guide for using or developing with Vue.js; for that, see the [general Vue.js documentation](#).

History [edit]

Discussions about adopting a modern JavaScript framework into MediaWiki began in early 2019. In December 2019, an [RFC on the subject](#) was started. Vue.js was added to core MediaWiki in February 2020. The [NearbyPages](#) extension, the first MediaWiki extension to use Vue.js, was released soon afterwards. The RFC ended in March 2020, with the official decision to use Vue.js (though this decision was not clearly announced until [August 2021](#)). [WVUI](#) (Wikimedia Vue User Interface), the first attempt at a shared library for Vue.js-based components for use within Wikimedia projects, was created in May 2020. The first MediaWiki version to include Vue.js, and the related Vuex library, was 1.35, released in September 2020. A replacement library for Vue.js within Wikimedia, [Codex](#), was started in September 2021 following feedback from WMDE, and WVUI became deprecated. Vue.js within MediaWiki was upgraded from version 2 to 3 in December 2021.

Current Status [edit]

Basic Vue.js support in MediaWiki [edit]

✓ Done

Vue.js is now shipped as part of MediaWiki core. JS code in skins and extensions can `require('vue')` from ResourceLoader just like any other module. Single-file components (`.vue` files) are supported via ResourceLoader. See [here](#) for



**What do I need to
know to build
apps with Vue?**

Prerequisites



- Familiarity with HTML, CSS and JS
- Familiarity with a code editor

WHAT IF I TOLD YOU



NO BUILDS TOOLS NEEDED

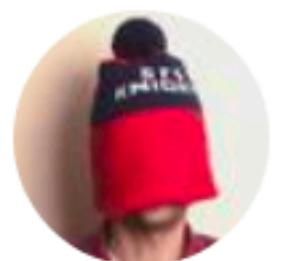




Essentials



**Let's create an app
with reactive data!**



Sam Saccione 

@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





Exercise Time!

Start

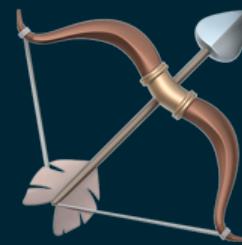
- Choose your favorite TV show and create an HTML page for it.
- Create reactive data tracking characters on the show
- Create an empty state if no characters exist.

Bonus

- Add more reactive data
- Add some test scenarios using the directives you know!



Methods and More directives



Exercise Time!

Start

- Add a favorite button to each character.
- Render favorite characters in a separate list.

Bonus

- Create form to add new characters.



Watchers and Computed Properties



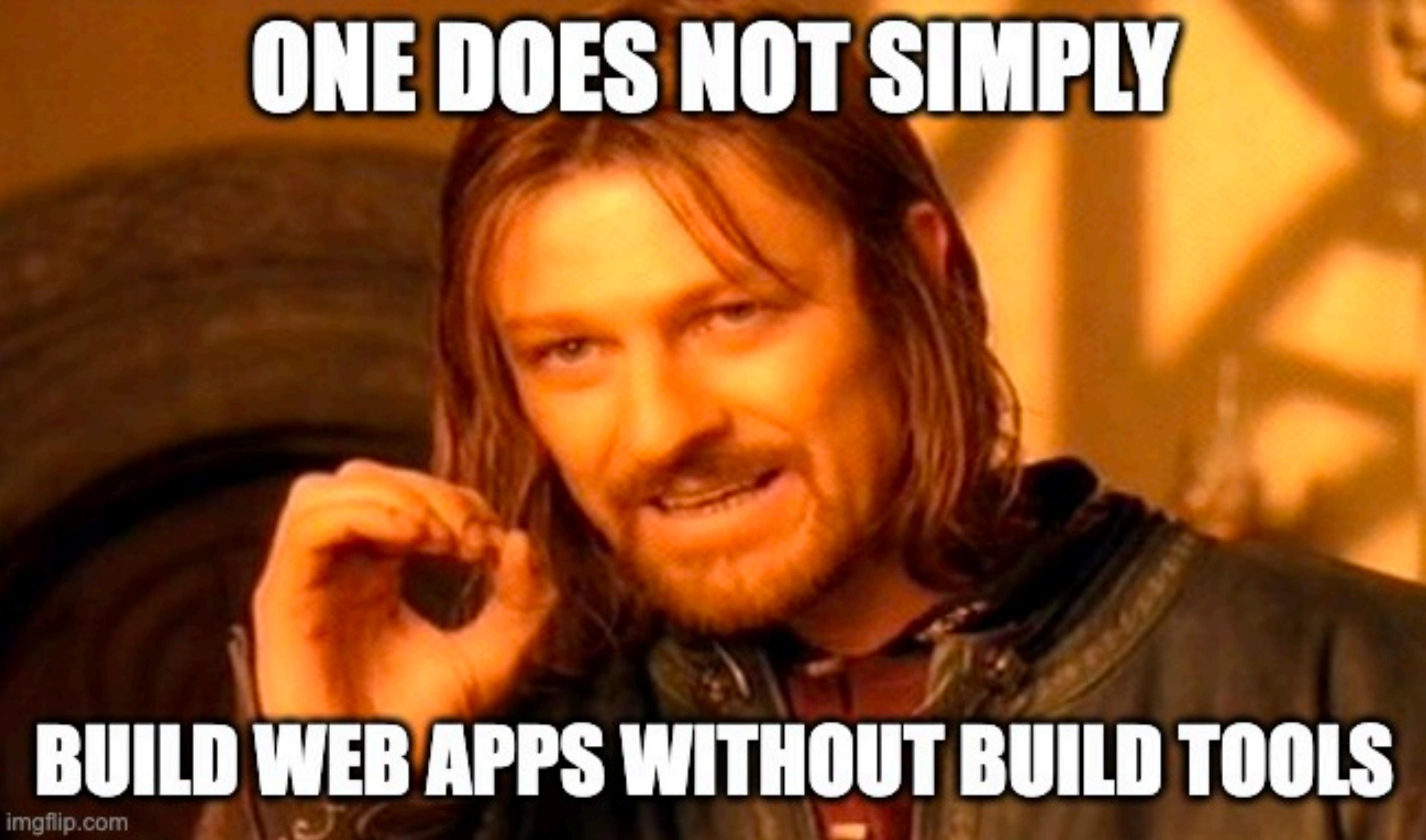
Exercise Time!

Start

- Create a statistics column for character attributes that leverages computed properties!

Bonus

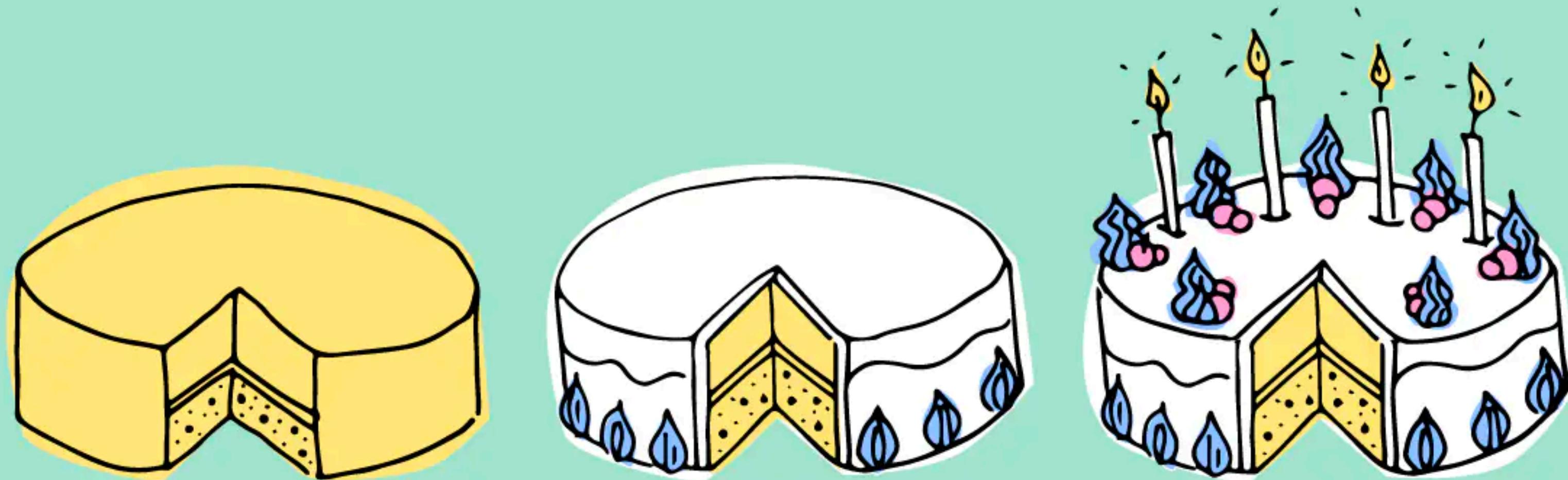
- Play around with side effects and fun things you might do with watch!



ONE DOES NOT SIMPLY

BUILD WEB APPS WITHOUT BUILD TOOLS

Practical Progressive Enhancement



Credit to Tiffany Tse's "What is Progressive Enhancement and Why Should You Care?"

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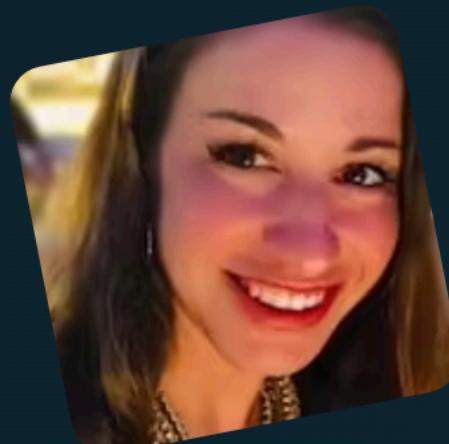
[Sarah Drasner](#) / FEB 13, 2018 / [101 comments](#)

Replacing jQuery With Vue.js: No Build Step Necessary

 15 min read  [JavaScript](#), [Vue](#), [HTML](#), [jQuery](#), [Guides](#)
 Share on [Twitter](#), [LinkedIn](#)

QUICK SUMMARY • Did you know that you can incorporate Vue into your project the same way that you would incorporate jQuery – with no build step necessary? Let's cover some common use cases in jQuery and how we can switch them over to Vue, and why we'd even want to do so.

It's been impossible to ignore all of the hype surrounding JavaScript frameworks lately, but they might not be the right fit for your projects.



ABOUT THE AUTHOR

Sarah Drasner is an award-winning Speaker, Head of Developer Experience at Netlify, Vue core team member, and Staff Writer at CSS-Tricks. Sarah is formerly ... [More about Sarah](#)



Search GitLab



vueconfus

Project information

Repository

Issues 4

Merge requests 0

CI/CD

Security & Compliance

Deployments

Packages and registries

Infrastructure

Monitor

Analytics

Wiki

Snippets

Settings

Ben Hong > vueconfus



vueconfus

Project ID: 9956072

445 Commits 6 Branches 0 Tags 20.3 MB Project Storage



Star 1

Fork 0

master

vueconfus /



Find file

Web IDE



Clone

updated config for twitter card
pratik patel authored 3 weeks ago

4bb73538



Name	Last commit	Last update
assets	Upload New File new splash for 2023	3 weeks ago
components	Update Hero.vue	3 weeks ago
content	changed site for 2023 conf	3 weeks ago
layouts	feature: migrate files from github repo	3 years ago
pages	changed site for 2023 conf	3 weeks ago
plugins	feature: migrate files from github repo	3 years ago

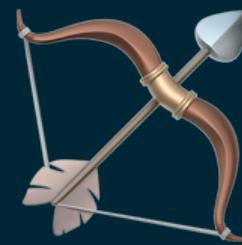
<< Collapse sidebar



Fundamentals



Create a Vue Project



Exercise Time!

Start

- Create a new project with `create-vue` that's named your `${show_name}-forum`
- Migrate `index.html` into `App.vue`.



Single File Components + Props



Exercise Time!

Start

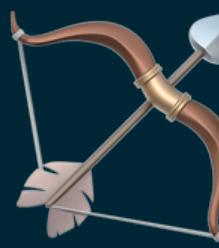
- Create a CharacterCard component to display each character

Bonus

- When you click on a character, only display that character



**Single File Components +
Emits**



Exercise Time!

Start

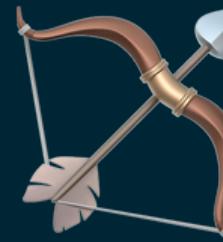
- Fix Favorite button functionality.

Bonus

- Play around with events and other things that inspire you!



Lifecycle Hooks and Fetching Async Data



Exercise Time!

Start

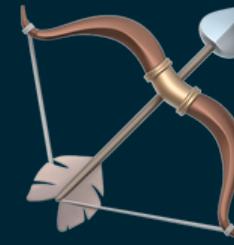
- Fetch comments from JSON Placeholder API and attach it to a character
- Display number of comments for each character when looking at all of them
- Display comments if we're only focused on the single character

Bonus

- Explore other APIs from JSON Placeholder and see what you can wire up together!



Styling Components



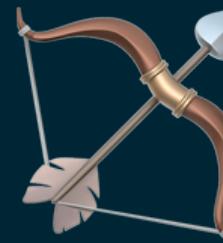
Exercise Time!

Start

- Try styling things with global CSS
- Try styling things with scoped CSS
- Try styling with CSS modules
- Try using v-bind for styling!



Slots



Exercise Time!

Start

- Create a `BaseLayout` component that uses slots to allow different components to display different things!



Composition API



Exercise Time!

Start

- Refactor async fetch call to use setup and return the correct data to the Options API

Bonus

- Try moving more stuff into setup to see how it feels!



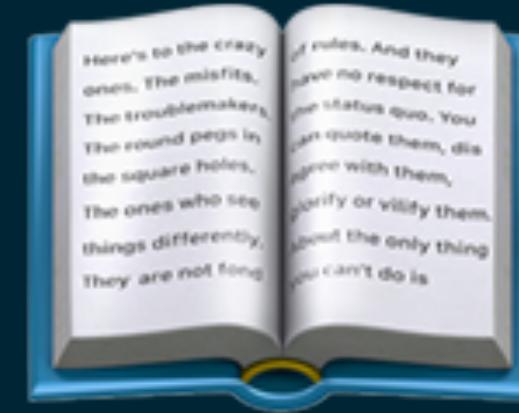
Closing Thoughts + Q&A



DAY TWO



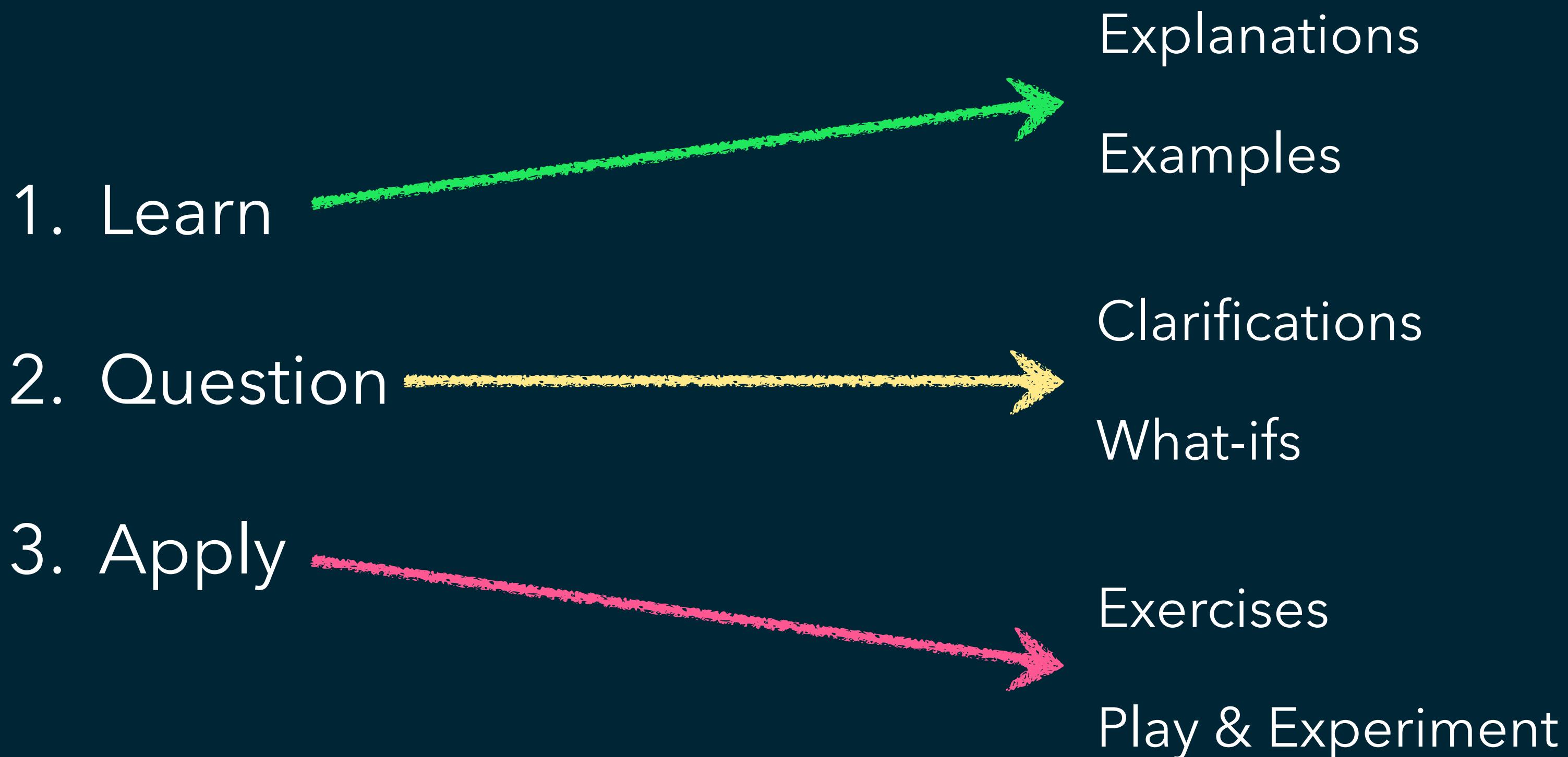
Welcome!



Workshop Resource

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Workshop Format



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Your opinion and experience matter too.

Choose what works best for you and your team.



Schedule - Day 2

Time Slot (CDT)	Event
9:45AM – 10:15AM	Lifecycle Hooks & Async Data
10:15AM – 11:30AM	Composition API
11:30AM – 12:00PM	Styles
12:00PM – 1:00PM	 {{ meal }}
1:00PM – 2:00PM	Routing
2:00PM – 3:00PM	State Management
3:00PM – 4:00PM	Transitions + Utilities
4:00PM – 4:15PM	Deploying Your App
4:15PM – 4:30PM	Closing Thoughts + Q&A



Lifecycle Hooks & Fetching Async Data



Exercise Time

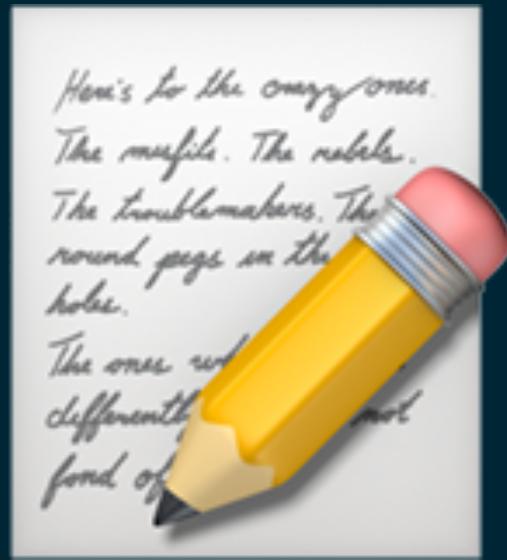


Start

- Create a **UsersPage** component
- Leverage the **created** lifecycle hook to fetch a list of users from JSON Placeholder API
- Render them to the page in a way that looks good to you!

Bonus

- Refactor how pages are being managed in App.vue by leveraging the built-in **<component :is />** element.



Here's to the crazy ones.
The misfits. The rebels.
The troublemakers. The
round pegs in the
square holes.
The ones who
see things
differently.
The ones who
are not
afraid of
the void.

Composition API



Exercise Time



Start



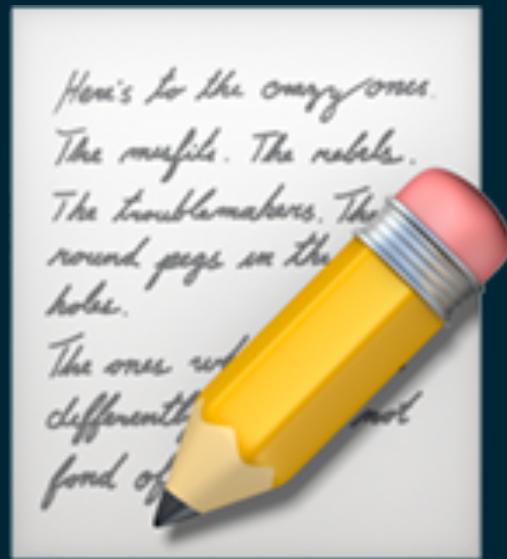
- Refactor **UsersPage** to use setup to fetch data



Bonus



- Practice using ref, reactive, computed and creating methods inside of setup!



Composition API

script setup



Exercise Time

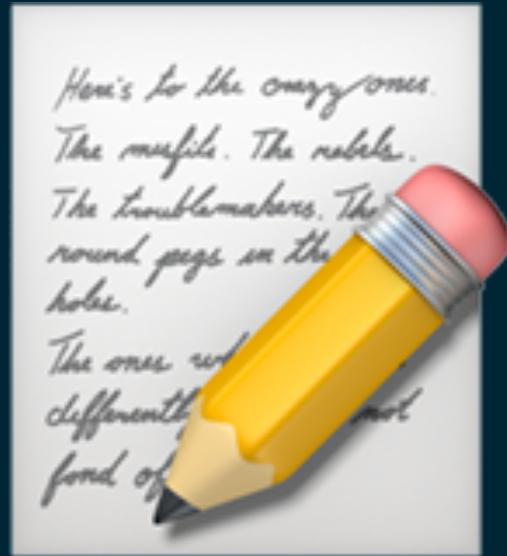


🌱 Start 🌱

- Refactor **UsersPage** to use script setup
- Practice using **defineProps**
- Practice using **defineEmits**

🎁 Bonus 🎁

- Practice using **ref**, **reactive**, **computed** and creating methods inside of setup!



Composition API

Composables



Exercise Time



🌱 Start 🌱

- Create a **composables** folder in your src directory
- Analyze your app to see where you can create a sharable piece of state or functionality.
- Create a file called **useState.js / useFunction.js**

🎁 Bonus 🎁

- Create other composables and try stuff out!



Styling Components



Exercise Time

 **Start** 

- Refactor styles using an external global file
- Try styling with scoped CSS
- Try styling with CSS modules

 **Bonus** 

- Try playing around with v-bind!



Routing with Vue Router



Exercise Time

 Start

- Open Vue Router docs for reference
- Install Vue Router and configure Vue to use it
- Move all "page" components into a new **src/views** directory
- Create a **src/router.js** file and set it up to have the correct routes
- Update **App.vue** to utilize the router-link and router-view components so everything renders correctly



Routing with Vue Router

Common Scenarios



Exercise Time

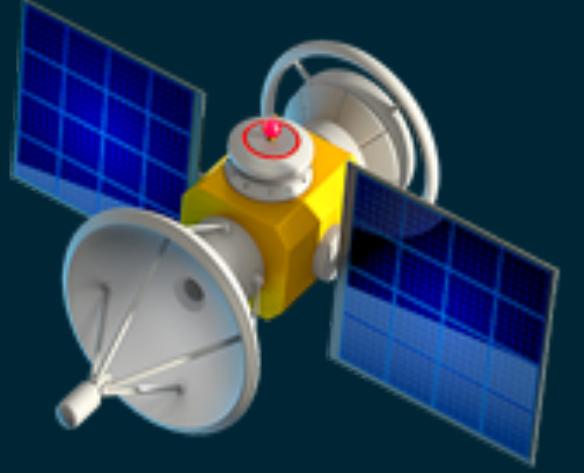


Start

- On the LoginPage, use programmatic navigation to navigate the user to a DashboardPage
- Create a dynamic route that displays each User's profile on its own page

Bonus

- Try using nested routes!



State Management with Pinia



Exercise Time



Start

- Open Pinia docs for reference
- Install Pinia and configure Vue to use it
- Create a **stores** folder in the src directory and create a **itemTypeStore.js** in it
- Create your first store and add some state, getters and actions
- Call things in your component!



State Management with Pinia

Getters and Actions



Exercise Time



🌱 **Start** 🌱

- Analyze your app for opportunities to add getters to your store
- Analyze your app for opportunities to add actions to your store
- Call your getters in your component(s)
- Call your actions in your component(s)



VueUse

Composable Utilities



Animations & Transitions



VueUse

Composable Utilities



Deploying Your App



Closing Thoughts + Q&A

Thank you!



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