

CODING WORKSHOP

VUE.JS 101

GETTING SETUP

Repo: <http://bit.ly/2qGa0C6>

CodeSandbox: <http://bit.ly/2HsBsxu>

WIFI

Network: **TPGuest**

Password: **#1politics**

LET'S GET STARTED!

VUE.JS INTRO

**WHAT ARE
CLIENT-SIDE
FRAMEWORKS?**

**ALLOW YOU TO TAKE CONTROL
OF YOUR SITE'S USER
EXPERIENCE**

Ben Hong

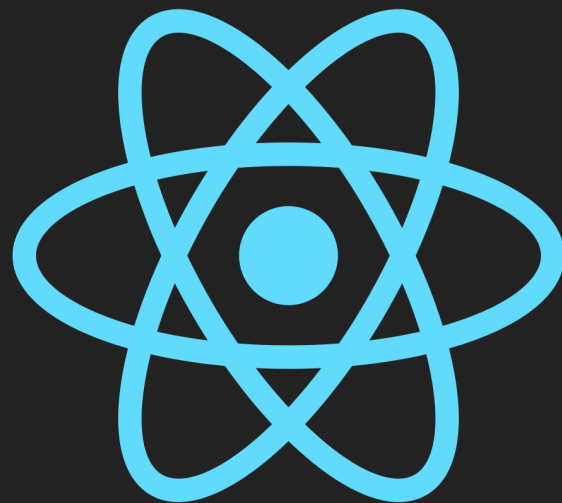
NUMBER OF DAYS SINCE



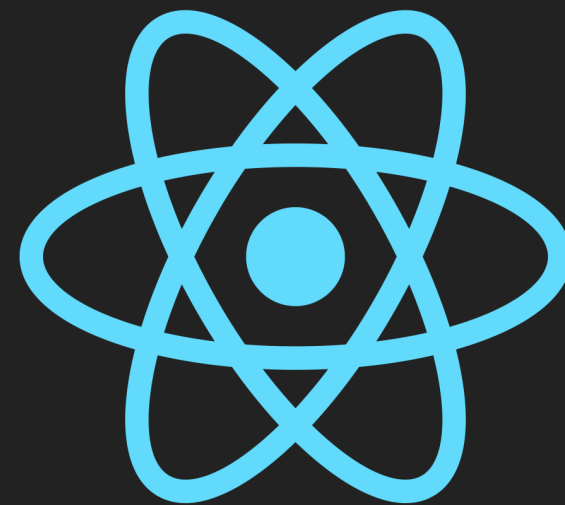
LAST NEW JS FRAMEWORK

imgflip.com

MOST POPULAR FRAMEWORKS



MOST POPULAR FRAMEWORKS

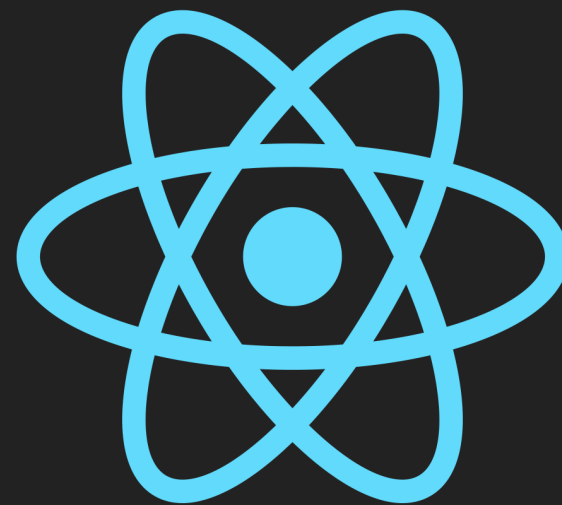


ANGULAR OVERVIEW

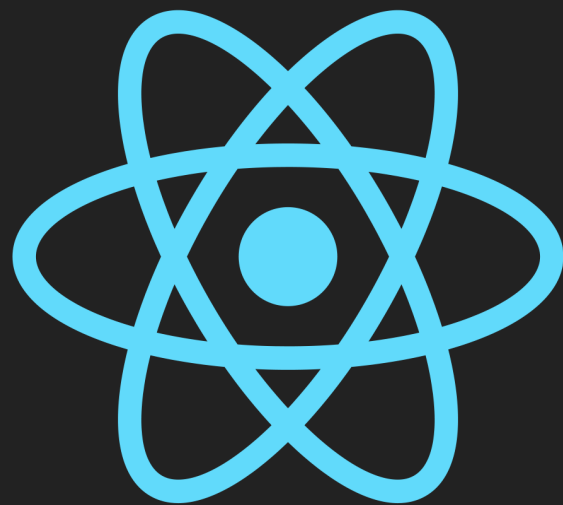


- + Developer and maintained by Google
- + Easy to get something up and running pretty quickly
- Most of what was happening seemed like magic
- More opinionated on how you should built your app

MOST POPULAR FRAMEWORKS



REACT OVERVIEW



Developed by Facebook and recently granted an MIT license



Great performance due to the use of the virtual DOM



You got a lot better at vanilla JavaScript really quickly



Just getting started had a high learning curve

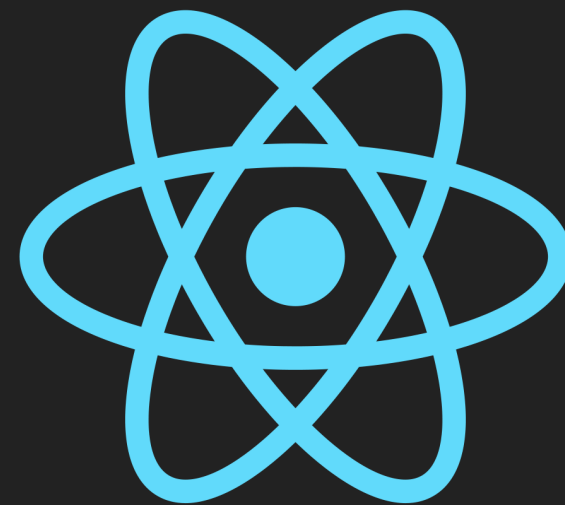


Unfriendly to non-JavaScript developers



High pace of development resulting in unexpected bugs

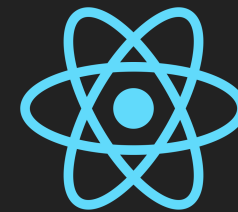
MOST POPULAR FRAMEWORKS



COMPARING FRAMEWORKS



Angular



React

Founded By

Google

Facebook

How Opinionated?

Opinionated

Flexible

Learning Curve

Easy to start
Hard to master

Hard to start
Intermediate to master

Template

ngHTML

JSX

```
<section id="todoapp">
  <ul id="todo-list" ng-show="todos.length" ng-cloak>
    <li ng-repeat="todo in todos | filter:statusFilter track by $index"
        ng-class="{completed: todo.completed, editing: todo == editedTodo}"
    >
      <div class="view">
        <input class="toggle"
            type="checkbox"
            ng-model="todo.completed" ng-change="toggleCompleted(todo)">
        <label ng-dblclick="editTodo(todo)">
          {{todo.title}}
        </label>
        <button class="destroy" ng-click="removeTodo(todo)"></button>
      </div>
    </li>
  </ul>
</section>
```

NG-HTML EXAMPLE

```
import React from 'react';
import { render } from 'react-dom';
import Hello from './Hello';

const styles = {
  fontFamily: 'Avenir, Helvetica, Arial, sans-serif';
  textAlign: 'center',
  color: '#2c3e50',
  marginTop: '60px'
};

const App = () => (
  <div style={styles} className="app" id="app">
    <h1>This is a React.js component file!</h1>
  </div>
);

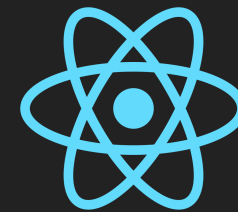
export default App
```

JSX EXAMPLE

COMPARING FRAMEWORKS



Angular



React

Founded By

Google

Facebook

How Opinionated?

Opinionated

Flexible

Learning Curve

Easy to start
Hard to master

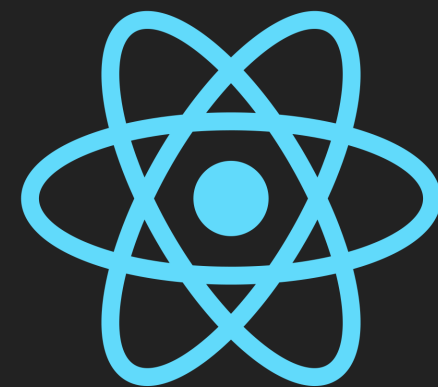
Hard to start
Intermediate to master

Template

ngHTML

JSX

COMPARING FRAMEWORKS



*As of April 11th, 2018

HOW STANDARDS PROLIFERATE:
(SEE: A/C CHARGERS, CHARACTER ENCODINGS, INSTANT MESSAGING, ETC)

SITUATION:
THERE ARE
14 COMPETING
STANDARDS.

14?! RIDICULOUS!
WE NEED TO DEVELOP
ONE UNIVERSAL STANDARD
THAT COVERS EVERYONE'S
USE CASES.

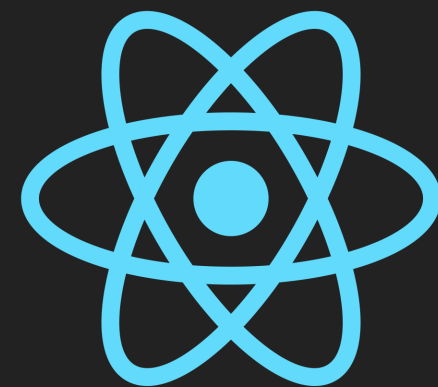


SOON:

SITUATION:
THERE ARE
15 COMPETING
STANDARDS.

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

COMPARING FRAMEWORKS



*As of April 11th, 2018

COMPARING FRAMEWORKS



*As of April 11th, 2018

VUE OVERVIEW



Open-source framework with no corporate influence



Takes the best of both worlds and bring 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

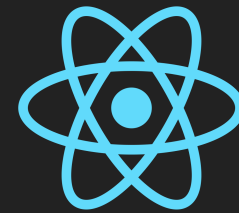


No corporate backing and has a "smaller" community compared to React / Angular

COMPARING THE TOP 3 FRAMEWORKS



Angular



React



Vue

| | Angular | React | Vue |
|------------------|---------------------------------|-------------------------------------|-------------------------------------|
| Founded By | Google | Facebook | Evan You |
| How Opinionated? | Opinionated | Flexible | Guidance as needed |
| Learning Curve | Easy to start Hard to master | Hard to start Moderate to master | Easy to start Moderate to master |
| Template | ngHTML | JSX | vHTML (optional) |
| GitHub Stars | 93.4k (62% v1)* | 93.6k* | 91k* |

*As of April 18th, 2018

**WHICH FRAMEWORK
SHOULD YOU CHOOSE?**

IT DEPENDS



CHOOSE VUE

NO WAY!

TELL ME MORE!

AN OVERVIEW OF

VUE.JS BASICS

AN INSTANCE OF VUE.JS

```
const app = new Vue({  
  // Determine the element your app will live in  
  el: "#app",  
  // Establishes the data you can use in the app  
  data: {  
    firstName: 'Ben',  
    lastName: 'Hong'  
  },  
  // Allows you to define functions that you can  
  // call in your app  
  methods: {  
    sayHello: function() {  
      alert('Hello!')  
    }  
  }  
})
```

EXPRESSIONS IN VUE.JS

```
<!-- Using data variables is easy! -->
```

```
<p>{{ firstName }} {{ lastName }}</p>
```

```
<!-- You can even do math! -->
```

```
<p>How about some math? {{ 11 * 11 }}</p>
```

```
<!-- Basic logic works as well! -->
```

```
<p>{{ onSale ? price * 0.8 : price }}</p>
```

CODING EXERCISE

THAT WAS EASY!

**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 syntax** that flow you to accomplish common goals without worrying about how it is implemented

- ▶ v-if
- ▶ v-else-if
- ▶ v-else
- ▶ v-show
- ▶ v-for
- ▶ v-bind
- ▶ v-on
- ▶ v-model

V-IF / V-ELSE-IF / V-ELSE

Allows you to determine whether an element on the page should **exist**

```
<article>
  <h1>Dashboard</h1>
  <section v-if="userPermission === 'admin'">
    ...
  </section>
  <section v-else-if="userPermission === 'user'">
    ...
  </section>
  <section v-else>
    ...
  </section>
</article>
```

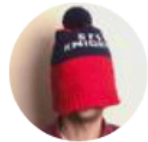
V-SHOW

Allows you to determine whether an element on the page should be **visible**

VS

V-IF / V-ELSE-IF / V-ELSE

Allows you to determine whether an element on the page should **exist**



Sam Saccone 

@samcccone

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

Allows 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

Allows us to attach methods to HTML elements when a certain event occurs

```
<!-- 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 binding

```
<div id="app">
  <h1>{{ msg }}</h1>
  <label for="msg">Message</label>
  <input id="msg" type="text" v-model="msg" />
</div>
```

```
<script>
new Vue({
  el: '#app',
  data: {
    msg: ''
  }
})
</script>
```

ENOUGH TALKING.

LET'S SEE SOME CODE!

CODING EXERCISE

HARRY POTTER WORLD

CODING EXERCISE

BASIC CALCULATOR

CODING WORKSHOP

VUE.JS 101

GETTING SETUP

Repo: <http://bit.ly/2qGa0C6>

GETTING SETUP

<http://www.github.com/bencodezen>

AS WE COME TO A CLOSE...

FINAL THOUGHTS



**#1. ACCESSIBLE
TO DEVELOPERS
OF PRETTY MUCH
ALL ABILITIES**

```
import React from 'react';
import { render } from 'react-dom';
import Hello from './Hello';

const styles = {
  fontFamily: 'Avenir, Helvetica, Arial, sans-serif',
  textAlign: 'center',
  color: '#2c3e50',
  marginTop: '60px'
};

const App = () => (
  <div style={styles} className="app" id="app">
    <h1>This is a React.js component file!</h1>
  </div>
);

export default App
```

JSX EXAMPLE

```
<template>
  <div id="app" class="app">
    <h1>This is a Vue.js component file!</h1>
  </div>
</template>

<script>
export default {
  name: 'App'
}
</script>

<style>
.app {
  font-family: 'Avenir', Helvetica, Arial, sans-serif;
  -webkit-font-smoothing: antialiased;
  -moz-osx-font-smoothing: grayscale;
  text-align: center;
  color: #2c3e50;
  margin-top: 60px;
}
</style>
```

SINGLE FILE COMPONENT (SFC)

**#2. THEIR DOCS
ARE ONE OF THE
BEST OUT THERE**



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Guide 2.x

Essentials

Installation

Introduction

[What is Vue.js?](#)

Getting Started

Declarative Rendering

Conditionals and Loops

Handling User Input

Composing with Components

Relation to Custom Elements

Ready for More?

The Vue Instance

Template Syntax

Computed Properties and Watchers

Class and Style Bindings

Conditional Rendering

List Rendering

Event Handling

Introduction

What is Vue.js?

Vue (pronounced /vjuː/, like **view**) is a **progressive framework** for building user interfaces. Unlike other monolithic frameworks, Vue is designed from the ground up to be incrementally adoptable. The core library is focused on the view layer only, and is easy to pick up and integrate with other libraries or existing projects. On the other hand, Vue is also perfectly capable of powering sophisticated Single-Page Applications when used in combination with **modern tooling** and **supporting libraries**.

If you'd like to learn more about Vue before diving in, we **created a video** walking through the core principles and a sample project.

If you are an experienced frontend developer and want to know how Vue compares to other libraries/frameworks, check out the **Comparison with Other Frameworks**.

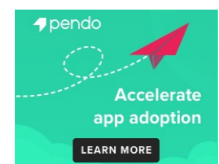
Getting Started

! The official guide assumes intermediate level knowledge of HTML, CSS, and JavaScript. If you are totally new to frontend development, it might not be the best idea to jump right into a framework as your first step - grasp the basics then come back! Prior experience with other frameworks helps, but is not required.

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Accelerate App Adoption

ads via Carbon

VUE.JS DOCS

<https://vuejs.org/v2/guide/>



**#3. IT IS THERE
WHEN YOU NEED
IT AND THEN IT
GETS OUT OF
YOUR WAY.**

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Style Guide BETA

Rule Categories

- Priority A: Essential
- Priority B: Strongly Recommended
- Priority C: Recommended
- Priority D: Use with Caution

Priority A Rules: Essential

- Multi-word component names
- Component data
- Prop definitions
- Keyed v-for
- Avoid v-if with v-for
- Component style scoping
- Private property names

Priority B Rules: Strongly Recommended

- Component files
- Single-file component filename casing
- Base component names
- Single-instance component names
- Tightly coupled component names
- Order of words in component names

Style Guide

This is the official style guide for Vue-specific code. If you use Vue in a project, it's a great reference to avoid errors, bikeshedding, and anti-patterns. However, we don't believe that any style guide is ideal for all teams or projects, so mindful deviations are encouraged based on past experience, the surrounding tech stack, and personal values.

For the most part, we also avoid suggestions about JavaScript or HTML in general. We don't mind whether you use semicolons or trailing commas. We don't mind whether your HTML uses single-quotes or double-quotes for attribute values. Some exceptions will exist however, where we've found that a particular pattern is helpful in the context of Vue.

Soon, we'll also provide tips for enforcement. Sometimes you'll simply have to be disciplined, but wherever possible, we'll try to show you how to use ESLint and other automated processes to make enforcement simpler.

Finally, we've split rules into four categories:

Rule Categories

Priority A: Essential

These rules help prevent errors, so learn and abide by them at all costs. Exceptions may exist, but should be very rare and only be made by those with expert knowledge of both JavaScript

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Start using Asana today, and say goodbye to status meetings and distracting DMs.

ads via Carbon

VUE.JS STYLE GUIDE

<https://vuejs.org/v2/style-guide/>

VUE.JS IS THE MOST
COMPASSIONATE FRAMEWORK
IN THE MARKET RIGHT NOW.

Ben Hong

GIVES ME WHAT I WANT WHEN
I **NEED** IT, AND THEN IT GETS
OUT OF MY WAY.

Sarah Drasner

SO WHAT ELSE IS THERE TO LEARN ABOUT?

- ▶ State Management
- ▶ Animations
- ▶ Custom Events
- ▶ Computed Properties
- ▶ Managing CSS in Vue.js
- ▶ Slots
- ▶ Watch Property
- ▶ Component Props
- ▶ Lifecycle Hooks
- ▶ Mixins
- ▶ Filters
- ▶ And much more!

WHAT OTHER **RESOURCES** DO YOU RECOMMEND?

Paid

- ▶ [Udemy: Vue.js 2 - The Complete Guide](#)
- ▶ [Frontend Masters: Introduction to Vue.js](#)

Free

- ▶ [Official Vue.js Guide](#)
- ▶ [VueDC: VueJS 101: The Essentials](#)
- ▶ [VueDC Meetups](#)

Q&A

@BENCODENZEN