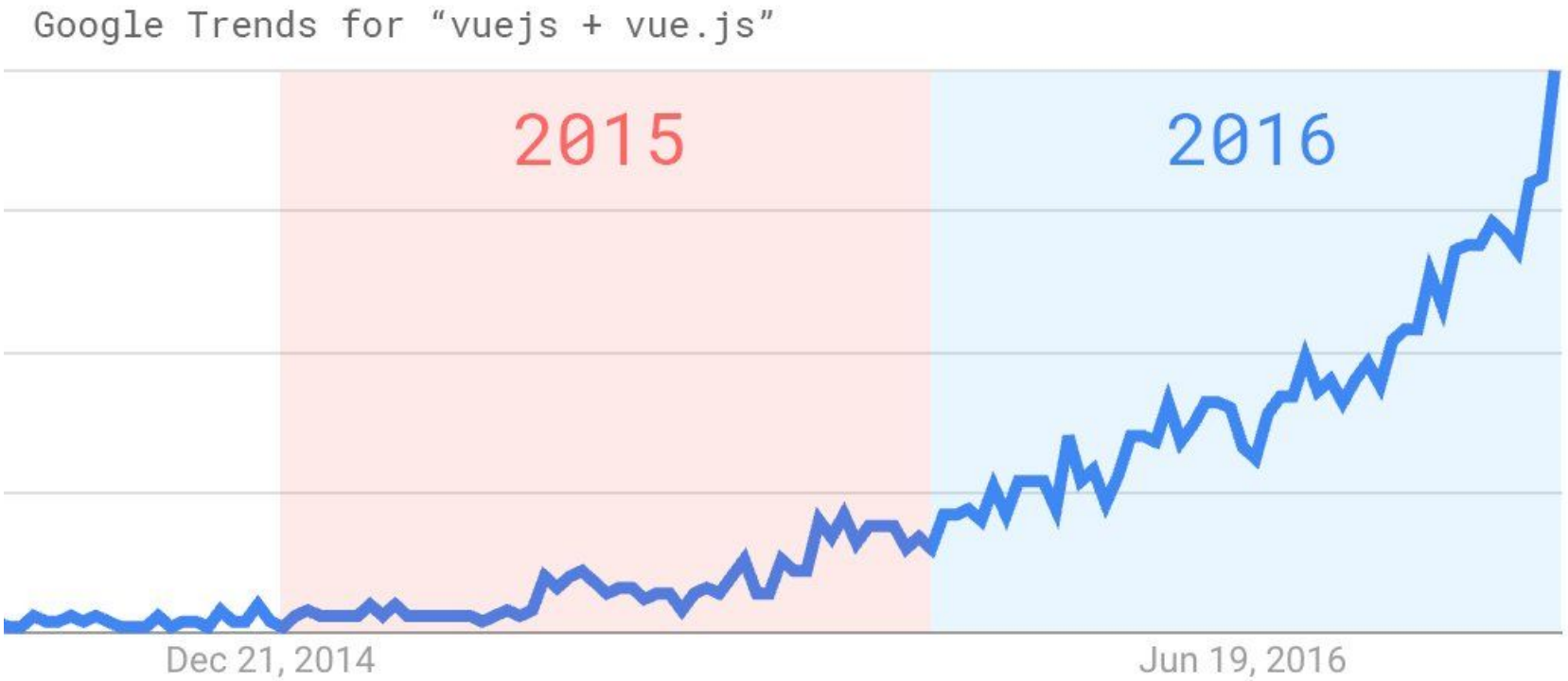
Vue.js for Angular.js developers

Mikhail Kuznetcov

2017

Vue.js

One of the frontend trends in 2016



Project started in 2013

Evan You

Creator of Vue.js

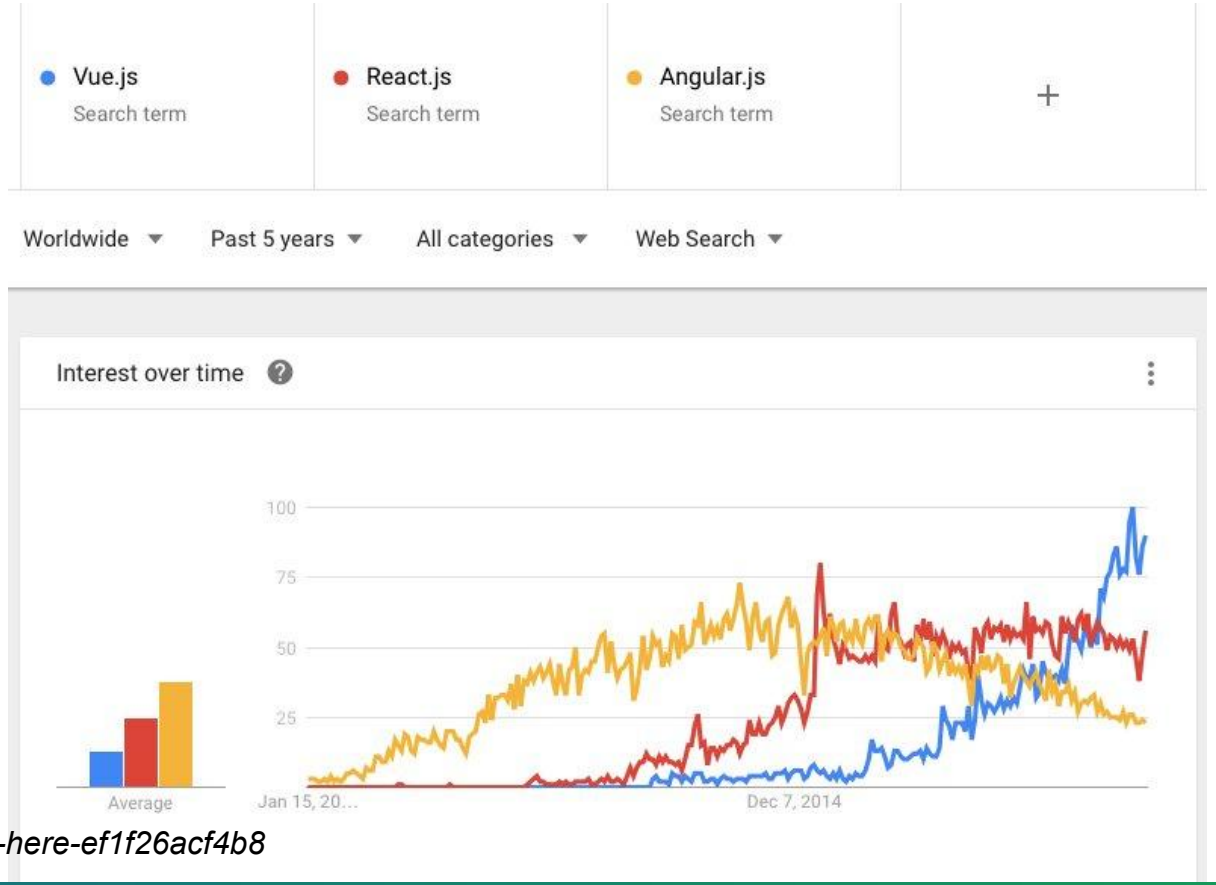
A progressive, incrementally-adoptable JavaScript framework for building UI on the web.

History

v 1.0 released 10.2015

v 2.0 released in 09.2016 with major changes & improvements

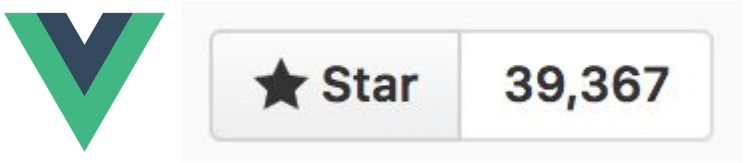
Current stable: **v 2.1.10**



https://medium.com/the-vue-point/vue-2-0-is-here-ef1f26acf4b8

Oh, new Javascript framework !

Developer adoption rate



100s plugins
UI packages, tooling, etc.
Tons of videos and posts

** - As of 12 Jan 2017*

Business usage

Alibaba, Baidu, Xiaomi,

Optimizely, Expedia, Nintendo,

DJI, Hunliji, GitLab, etc.

Vue.js selling points

1.
Incredibly small footprint

23k-framework, srsly ?!

GZipped

```
$ gzip -r .
$ ls -lhS
123K Jan  4 22:11 ember.1.13.8.min.js.gz
119K Jan  4 22:11 angular2.0.0-beta.0-all.umd.min.js.gz
111K Jan  4 22:11 ember.2.2.0.min.js.gz
111K Jan  4 22:11 angular2.min.js.gz
51K Jan  4 22:11 angular.1.4.5.min.js.gz
45K Jan  4 22:11 angular.1.3.2.min.js.gz
42K Jan  4 22:11 react-with-addons-0.14.5.min.js.gz
39K Jan  4 22:11 react-0.14.5.min.js.gz
32K Jan  4 22:11 angular2.0.0-beta.0-Rx.min.js.gz
1.9K Jan  4 22:11 redux-3.0.5.min.js.gz
455B Jan  4 22:11 react-dom-0.14.5.min.js.gz
23K  Oct 13 03:02 vue-2.0.3.min.js.gz
```

https://gist.github.com/Restuta/cda69e50a853aa64912d

What utility libs you're using in your current projects?

Vue.js has approx same size as one of those:

- Lodash v.4
- MomentJS (with locales)
- jQuery v.3

2.
It’s about developer’s (experience)

You want the API a human can master

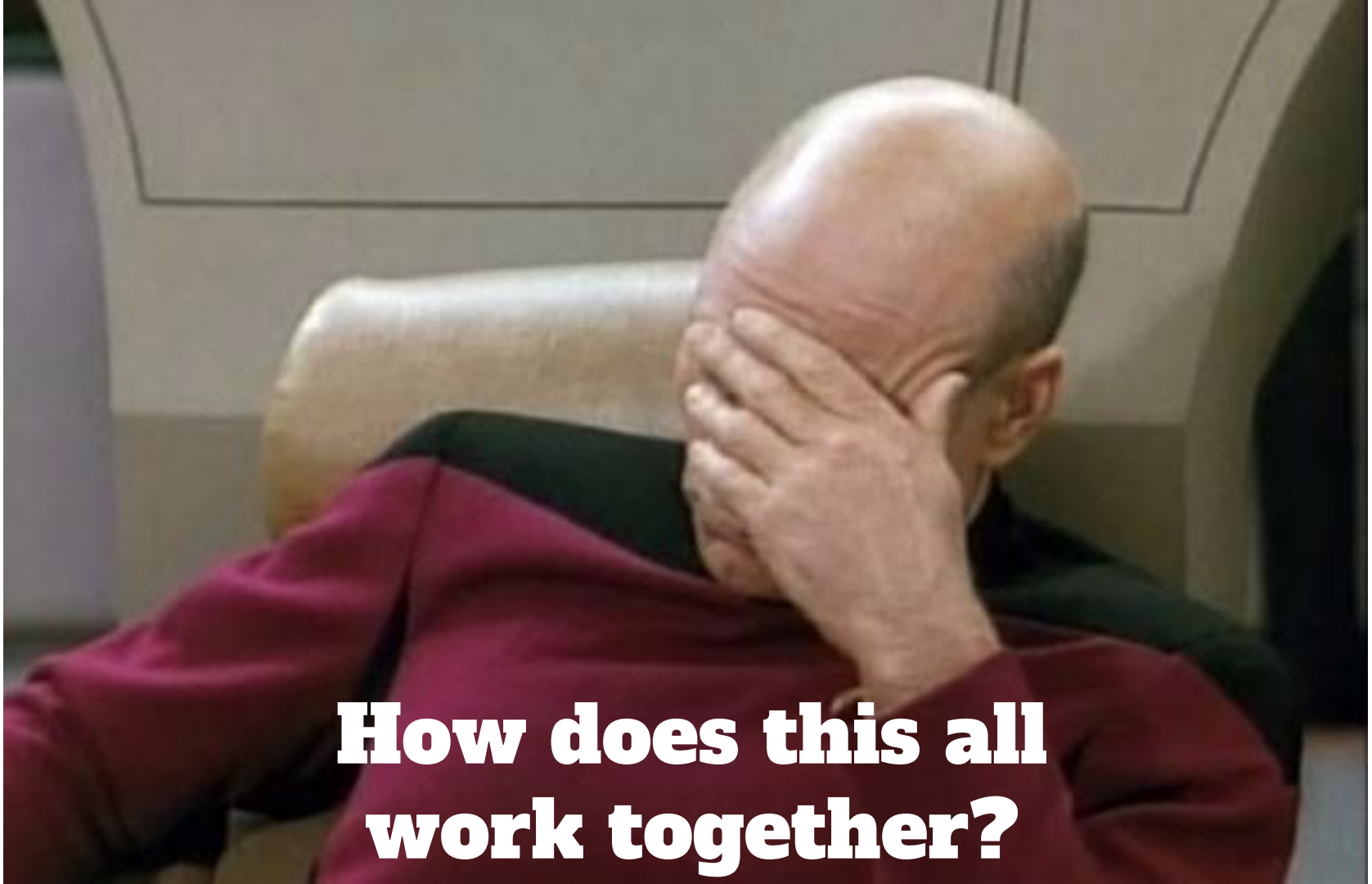
@angular/common

- APP_BASE_HREF
- AsyncPipe
- CommonModule
- CurrencyPipe
- DatePipe
- DecimalPipe
- HashLocationStrategy
- I18nPluralPipe
- I18nSelectPipe
- JsonPipe
- Location
- LocationChangeEvent
- LocationChangeListener
- LocationStrategy
- LowerCasePipe
- NgClass
- NgFor
- NgIf
- NgLocalization
- NgPlural
- NgPluralCase
- NgStyle
- NgSwitch
- NgSwitchCase
- NgSwitchDefault
- NgTemplateOutlet
- PathLocationStrategy
- PercentPipe
- PlatformLocation
- SlicePipe
- UpperCasePipe
- VERSION

@angular/core

- ANALYZE_FOR_ENTRY_COMPONENTS
- APP_BOOTSTRAP_LISTENER
- APP_ID
- APP_INITIALIZER
- AUTO_STYLE
- AfterContentChecked
- AfterContentInit
- AfterViewChecked
- AfterViewInit
- AnimationAnimateMetadata
- AnimationEntryMetadata
- AnimationGroupMetadata
- AnimationKeyframesSequenceMetadata
- AnimationMetadata
- AnimationPlayer
- AnimationSequenceMetadata
- AnimationStateDeclarationMetadata
- AnimationStateMetadata
- AnimationStateTransitionMetadata
- AnimationStyleMetadata
- AnimationTransitionEvent
- AnimationWithStepsMetadata
- ApplicationInitStatus
- ApplicationModule
- ApplicationRef
- Attribute
- COMPILER_OPTIONS
- CUSTOM_ELEMENTS_SCHEMA
- ChangeDetectionStrategy
- ChangeDetectorRef
- Class
- ClassDefinition
- ClassProvider
- CollectionChangeRecord
- Compiler
- CompilerFactory
- CompilerOptions
- Component
- ComponentFactory
- ComponentFactoryResolver
- ComponentRef
- ContentChild
- SimpleChange
- SimpleChanges
- SkipSelf
- SystemJsNgModuleLoader
- SystemJsNgModuleLoaderConfig
- TRANSLATIONS
- TRANSLATIONS_FORMAT
- TemplateRef
- Testability
- TestabilityRegistry
- TrackByFn
- Type

https://angular.io/docs/ts/latest/api/


How does this all
work together?

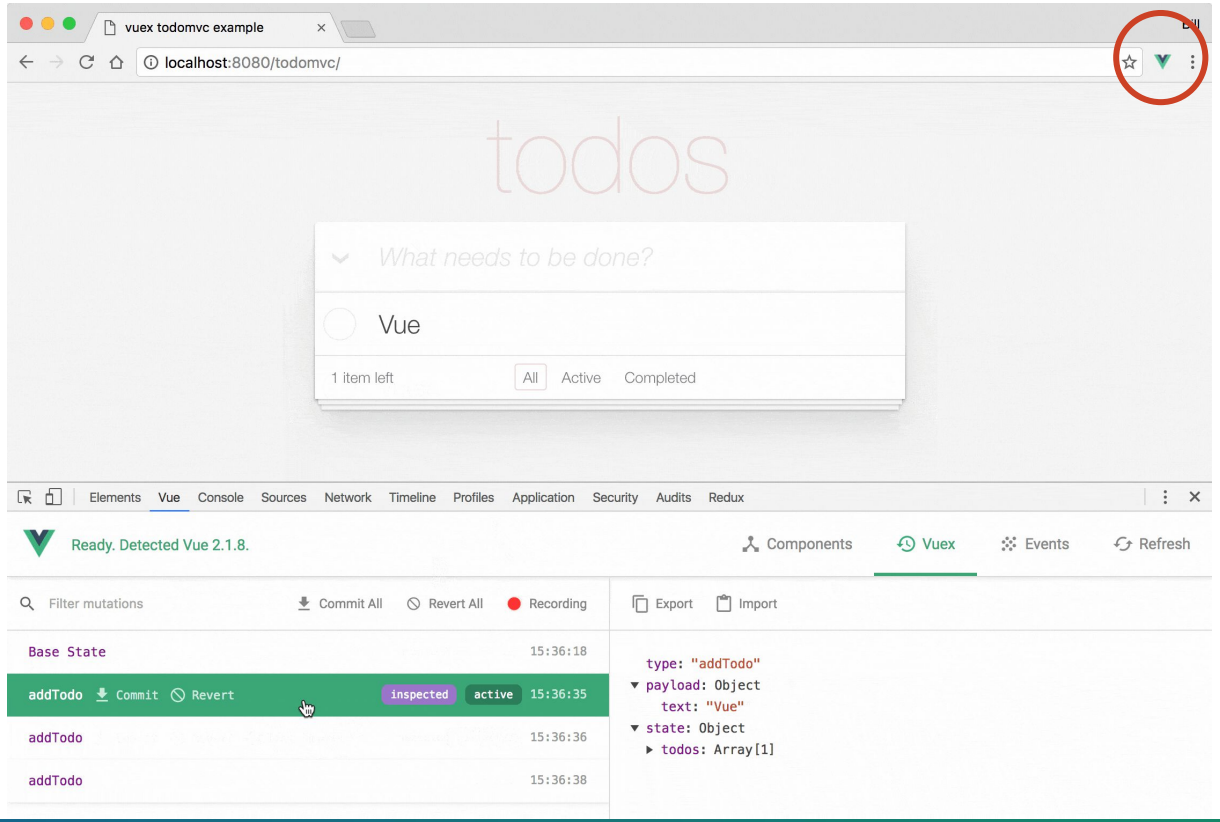
Clear guidance

- Lightweight, transparent API
- No 1.x, 2.0-rc, 2.0-rc1..., 2.1, 3.0, 4.x etc version mess
- Up to date and detailed docs

Comprehensive developer experience

- Vue-devtools, vue-cli
- Tooling for all major build systems
- Syntax highlighting and snippets for <favorite-editor-name>

Dev tools



- Components tree and properties exploration
- Time-travel debugging

3.
Syntax you already know (and love)

Component lifecycle

beforeCreate/created

beforeMount/mounted

beforeUpdate/updated

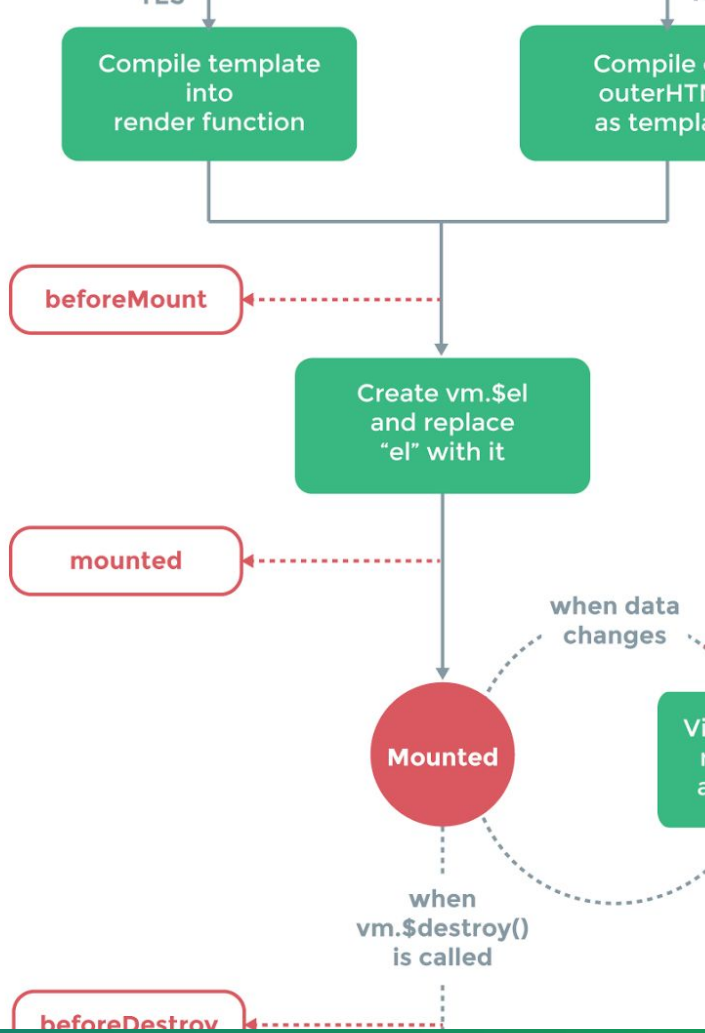
beforeDestroy/destroyed

$onInit

$postLink

$onChanges

$onDestroy



https://vuejs.org/v2/guide/instance.html#Lifecycle-Diagram
https://toddmotto.com/angular-1-5-lifecycle-hooks#using-oninit

Template syntax

```
<div v-html="rawHtml"></div>

<p v-if="seen">Now you see me</p>

<a v-on:click="doSomething"></a>

<a @click="doSomething"></a>

<div v-bind:class="{ active: isActive }"></div>
```

And so on...

Similar concepts

Template expressions

Directives (built-in and custom)

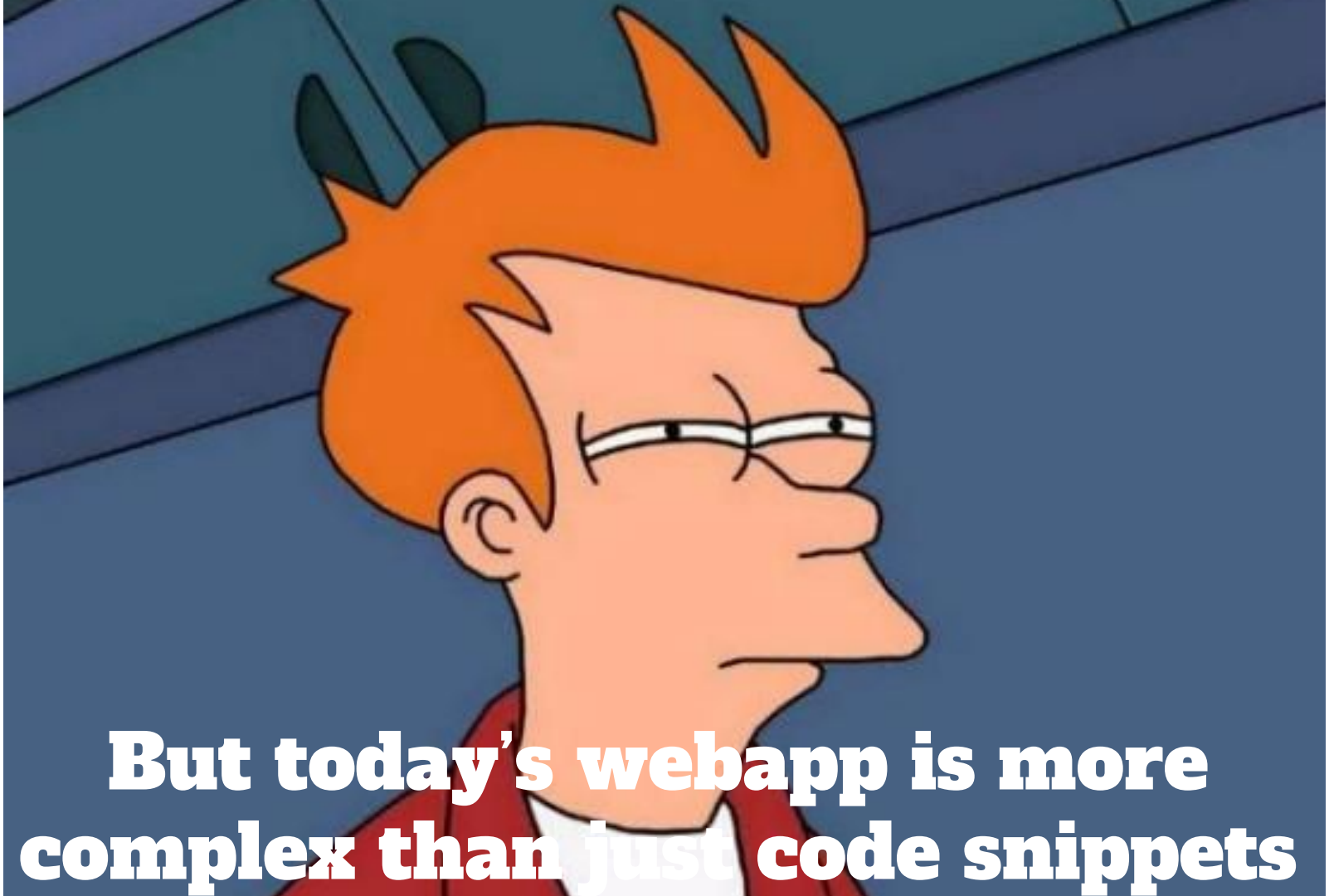
Filters

Events ($on, $off, $emit, $once)

Watchables

$render function

<slot> (like ng-transclude)


But today's webapp is more
complex than just code snippets

App code samples

Vue component

```
// register
Vue.component('my-component', {
    el: '#counter-event-example',
    template: '<div>A custom component!</div>',
    props: ['message'],
    methods: {
        incrementTotal: function () {
            this.total += 1
        }
    }
})
```

```
<template lang="jade">
div
  p {{ greeting }} World!
  other-component
</template>

<script>
import OtherComponent from './OtherComponent.vue'

export default {
  data () {
    return {
      greeting: 'Hello'
    }
  },
  components: {
    OtherComponent
  }
}
</script>

<style lang="stylus" scoped>
p
  font-size 2em
  text-align center
</style>
```

Solid template - github.com/posva/vue-plugin-template
Online generator - changjoo-park.github.io/vue-component-generator/

Vue router

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

// 3. Create the router instance and pass the `routes` option
// You can pass in additional options here, but let's
// keep it simple for now.
const router = new VueRouter({
  routes // short for routes: routes
})

// 4. Create and mount the root instance.
// Make sure to inject the router with the router option to make
the
// whole app router-aware.
const app = new Vue({
  router
}).$mount('#app')
```

```
 <!-- use router-link component for navigation. -->
    <!-- specify the link by passing the `to` prop. -->
    <!-- <router-link> will be rendered as an `<a>` tag by
default -->
    <router-link to="/foo">Go to Foo</router-link>
    <router-link to="/bar">Go to Bar</router-link>
```

https://router.vuejs.org/en/essentials/getting-started.html

Vuex

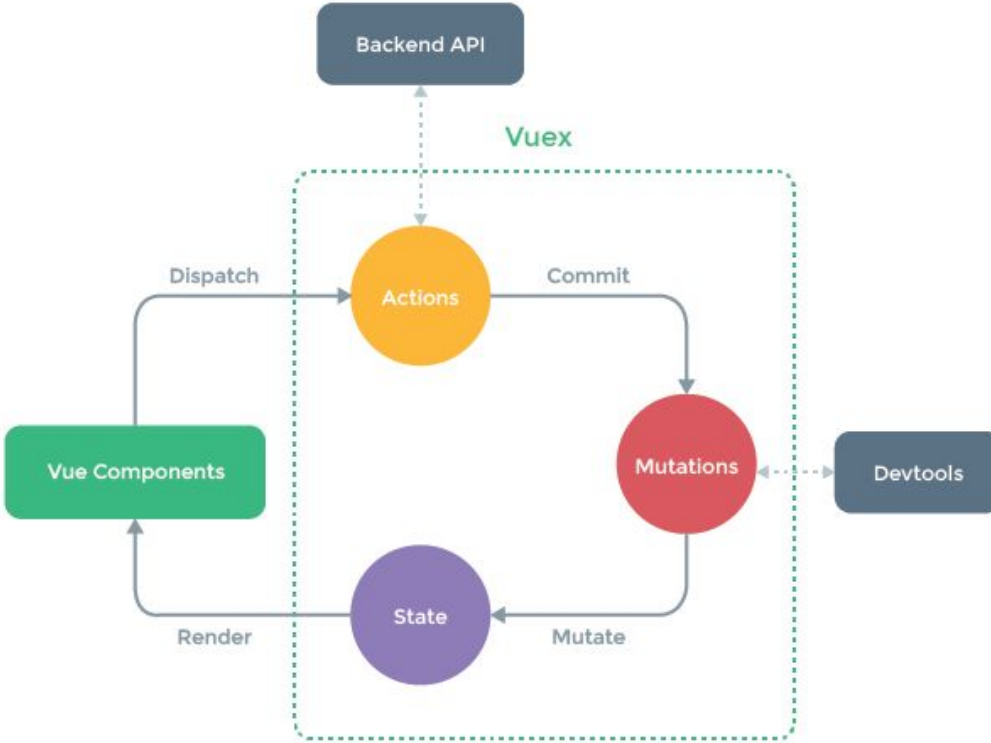
```
import store from './store'
import App from './components/App.vue'

new Vue({
 store, // inject store to all children
 el: '#app',
 render: h => h(App)
})


//in the component methods
this.$store.commit('addTodo', { text })



//mutation example
export const mutations = {
 addTodo (state, { text }) {
   state.todos.push({
     text,
     done: false
   })
 },
```



https://vuex.vuejs.org/en/structure.html

Other highlights

- Handful of UI libraries (material, bootstrap, mobile)
- SSR (e.g. nuxt.js or prerender plugin)
- State management (Redux clone vux, Event Bus)
- Lazy component loading (eg. vue-lazy-component)
- Form handling

Live coding time!

Setup starter project

```
$ npm install vue-cli -g

$ vue init webpack my-nice-project

$ cd my-nice-project

$ npm install

$ npm i mint-ui axios vue-online --save

$ npm run dev
```

Live coding plan

- Install stuff
- Connect to http://pokeapi.co/ using **axios**
- Create components to output + some UI with **mint-ui**

https://github.com/shershen08/vue-pokemon-app-demo

Do or Don’t?

Points to be aware of

- Vue.js SSR is bounded to NodeJS only env
- No monster corporation behind
- Ecosystem is still 10x smaller than React / Angular

Why you should start now

- Mental bridge from ‘Angular’ to ‘React’ world
- Can start immediately if you comfortable with Angular
- **No opinionation** (how you handle network requests or structure your modules)
- So small so you can start with a fragment of your UI

Check out the links

- Introduction mini-book (PDF + github repo)
- Awesome list: https://github.com/vuejs/awesome-vue
- Newsletter: https://www.getrevue.co/profile/vuenewsletter
- Twitter: https://twitter.com/vuejs and #vuejs tag
- Stackoverflow: http://stackoverflow.com/tags/vue.js/info
- Chats: https://gitter.im/vuejs/vue, http://telegram.me/vuejs_ru

goo.gl/XgmqMK

@legkoletat