

Vue.js Playbook

INTRODUCING VUE.JS



Chad Campbell

INDEPENDENT SOFTWARE CONSULTANT

@chadcampbell <https://www.ecofic.com>



Overview



Why Should I Care About Vue.js

Installing and Setting Up Vue.js

Initializing a Vue.js App



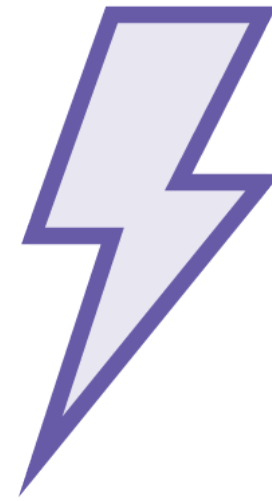
Why Should I Care About Vue.js?



Benefits of Vue



Simplicity



Speed



The Simplicity of Vue



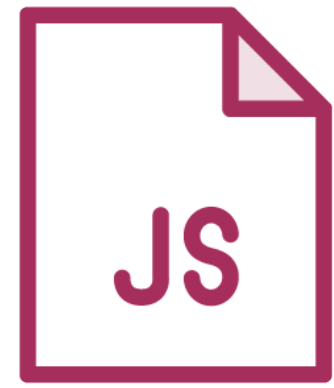
Vue Prerequisites



HTML



CSS



JavaScript



jQuery

Introduced in 2006

Empowered people to easily do amazing things



Complexity can make an
app error-prone and
difficult to maintain



Simplicity



Henrik Joreteg

@HenrikJoreteg

 Follow

If you don't actively fight for simplicity in software,
complexity will win.

...and it will suck.

2:00 AM - 7 Aug 2013



1,708



1,496



Vue Helps You

Templates

Declarative Bindings



Templates

UI

```
<div v-for="beer in beers">
  <div>
    <h5>{{ beer.name }}</h5>
    <small style="color:gray">
      abv: {{ beer.abv }}
    </small>
  </div>
</div>
```

Data and Business Logic

```
beers: [
  { name:'Ahool Ale', abv:5.4 },
  { name:'Sigbin Stout', abv:8.1 }
]
```

Vue.js →

```
<div>
  <div>
    <h5>Ahool Ale</h5>
    <small>abv: 5.4</small>
  </div>
</div>

<div>
  <div>
    <h5>Sigbin Stout</h5>
    <small>abv: 8.1</small>
  </div>
</div>
```



Basketball Card

Stats

Field Goal %
.521

Points Per Game
22.3

Rebounds Per Game
7.4

* Stats are fictional

Picture and Details



Template

Data

```
data: {  
  name: 'Lebron James',  
  picture: 'http://site.com/...jpg',  
  stats: {  
    pct: .521,  
    ppg: 22.3,  
    rpg: 7.4  
  }  
}
```

HTML

```
<div class="card">  
    
  <h4>{{ name }}</h4>  
  <ul>  
    <li>fg %: {{ stats.pct }}</li>  
    <li>ppg: {{ stats.ppg }}</li>  
    <li>rpg: {{ stats.rpg }}</li>  
  </ul>  
</div>
```



Templates

Minimize the amount of code you write
Protect you from changes



Declarative Bindings

The glue that holds the UI and data together

ITEM	PRICE
Milk	\$3.71
Eggs	\$1.86
Subtotal	\$5.57
Sales Tax (7%)	\$0.39
Grand Total	\$5.96



Declarative Bindings

The glue that holds the UI and data together

ITEM	PRICE
Milk	\$3.71
Eggs	\$1.86
Subtotal	\$5.57
Sales Tax (7%)	\$0.39
Grand Total	\$5.96



Declarative Bindings

The glue that holds the UI and data together

ITEM	PRICE
Milk	\$3.52
Eggs	\$1.86
Subtotal	\$5.38
Sales Tax (7%)	\$0.38
Grand Total	\$5.76



Declarative Bindings

Simplify development

Remove the burden of managing the DOM

Updates happen automatically



“Vue provides an answer to the issue of JavaScript fatigue, and it is a worthy successor to the legacy of jQuery.”

Peter Jang – Dean of Instruction at Actualize



Vue

Easy to learn

Easy to develop with

Easy to maintain

Fast



Running Fast with Vue



Size
Virtual DOM

Speed



Sizing up Vue.js



transfer size



resource size



Virtualizing the DOM

Why?

Changing the DOM is expensive
Recalculations block the user



Virtual DOM

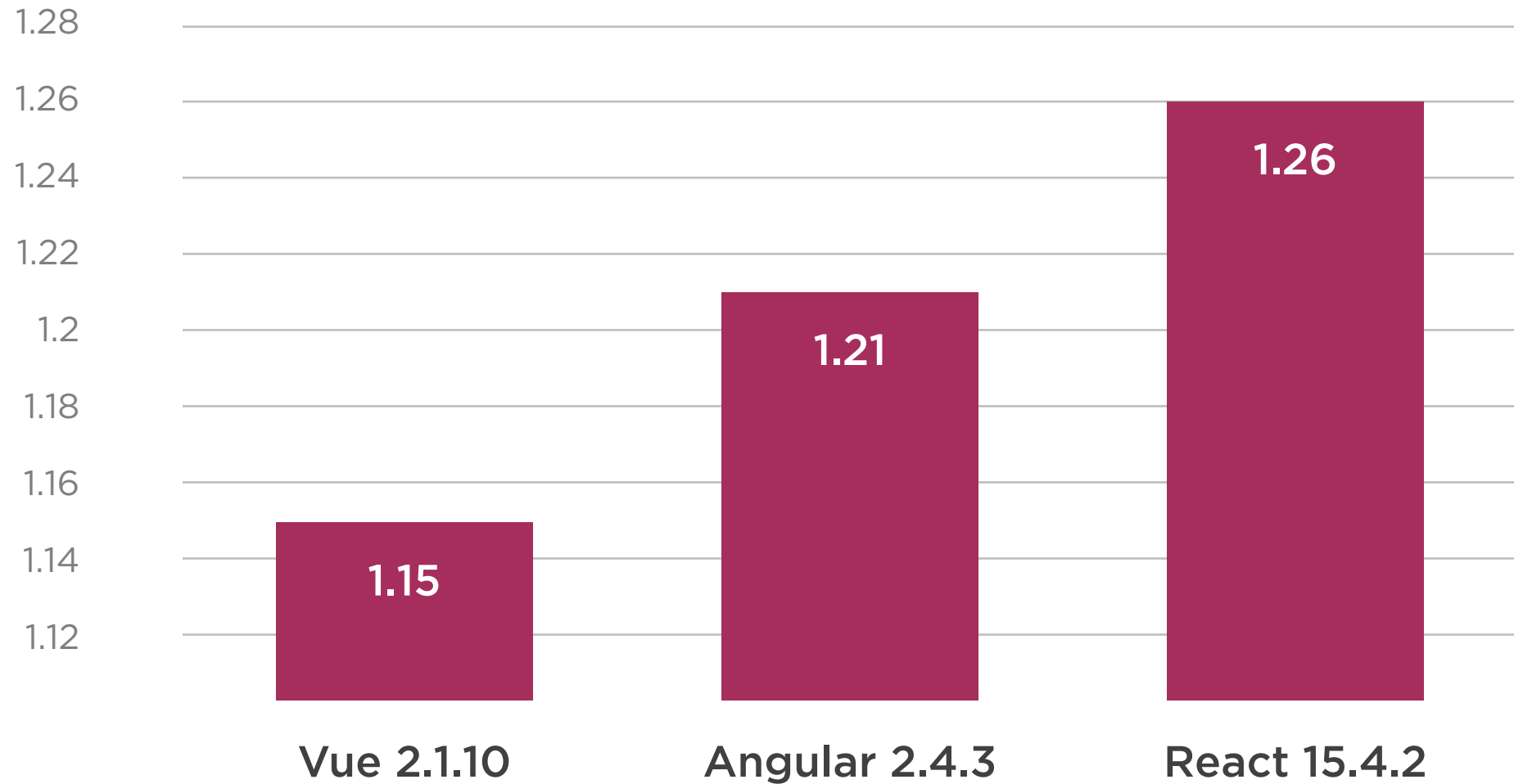
Lightweight copy of the actual DOM

Efficiently determines what needs to be updated

Batches updates



How Fast?



Other Considerations for Vue



Browser support
Licensing

Other Factors



Vue Browser Support

Microsoft Internet
Explorer
9 and up

Legacy Browsers

Google Chrome
Microsoft Edge
Mozilla Firefox
Apple Safari

Evergreen Browsers

Android
Safari on iOS

Mobile Browsers



Licensing



Vue.js

MIT



jQuery

MIT



Angular

MIT



React

3-clause
BSD license
with
Facebook
Addendum



Reasons to Use Vue.js

Licensing

Browser support

Run-time performance

Easy-to-learn

Easy-to-use



Installing and Setting Up Vue



Vue.js

Axios

Installation and Setup



Installing Vue.js

Core library

**Available via Content Delivery Network
(CDN)**

unpkg is recommended



Vue.js unpkg Url

<https://unpkg.com/vue>



Always redirects to the latest version of vue.js



Vue.js 2.2.5

<https://unpkg.com/vue@2.2.5>



Vue.js CDN Url

`https://unpkg.com/vue@[version]/dist/vue.min.js`



```
<script  
  type="text/javascript"  
  src="https://unpkg.com/vue@2.2.5/dist/vue.min.js">  
</script>
```

Vue.js Script Tag



Adding Vue

```
<html>
  <head>
    <title>Growler</title>
  </head>
  <body>
    <div id="growler"></div>
    <script
      type="text/javascript"
      src="https://unpkg.com/vue">
    </script>
  </body>
</html>
```



Axios

Recommended library for making HTTP requests

Not part of Vue.js



Axios

<https://unpkg.com/axios/dist/axios.min.js>



Adding Axios

```
<html>
  <head>
    <title>Growler</title>
  </head>
  <body>
    <div id="growler"></div>
    <script type="text/javascript" src="https://unpkg.com/vue"></script>
    <script type="text/javascript"
      src="https://unpkg.com/axios/dist/axios.min.js"></script>
  </body>
</html>
```



Initializing an Instance of Vue



```
var growler = new Vue({  
  el: '#growler',  
  data: {  
  }  
});
```

◀ Constructor



Coming Up

Mount Growler onto the DOM

Explain the life cycle of the Growler view



Mounting an Instance of Vue

When your view becomes visible to the user
Use the `el` option



```
var growler = new Vue({  
  el: document.getElementById( 'growler' )  
});
```

Mount to HTMLElement



```
var growler = new Vue({  
  el: '#growler',  
});
```

Mount via CSS Selector



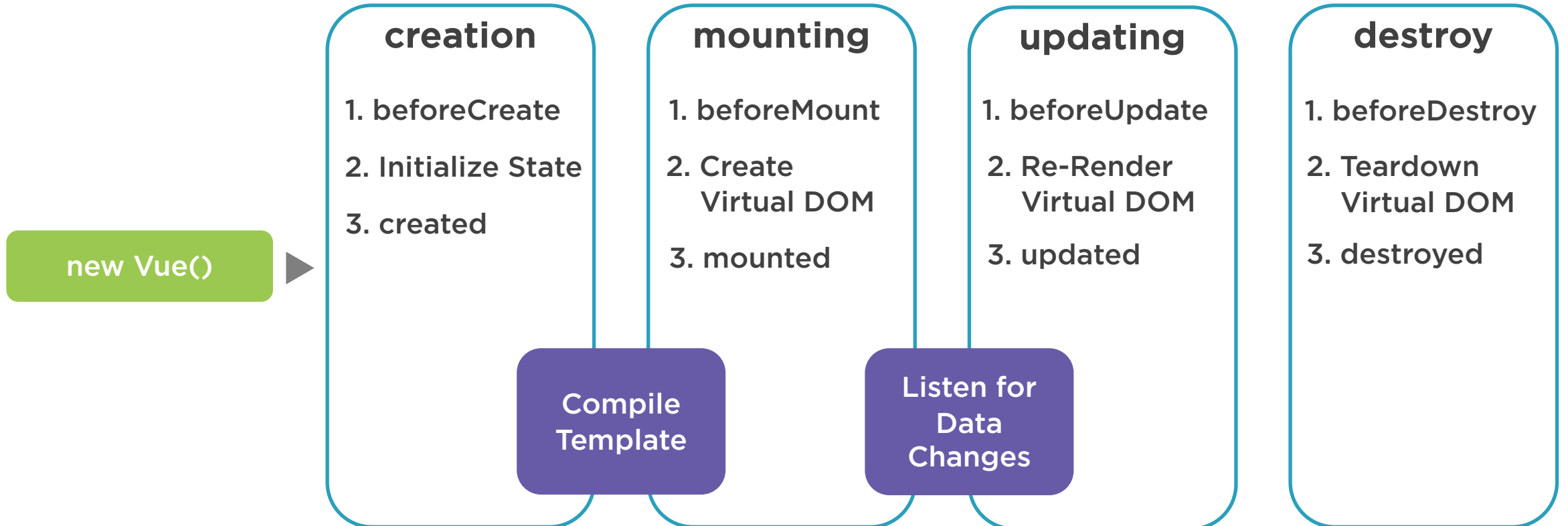
Never set the `el` option to the HTML or BODY elements in a web page



Lifecycle of a View



Lifecycle of a View



Summary



Lifecycle begins when you instantiate
Instance is created via Vue constructor
Installation and setup
What makes Vue.js valuable

