

YOU DON'T NEED jQuery

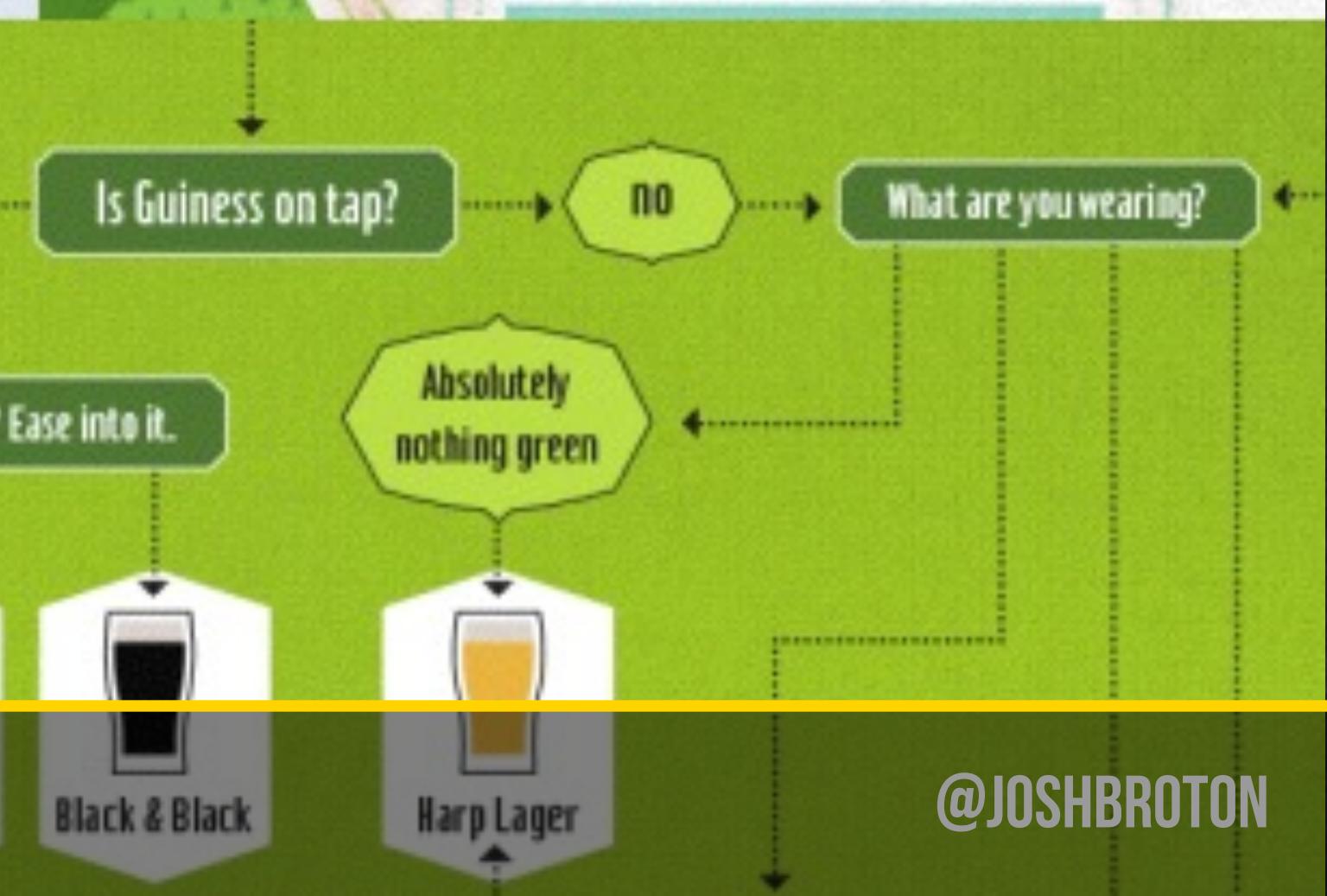
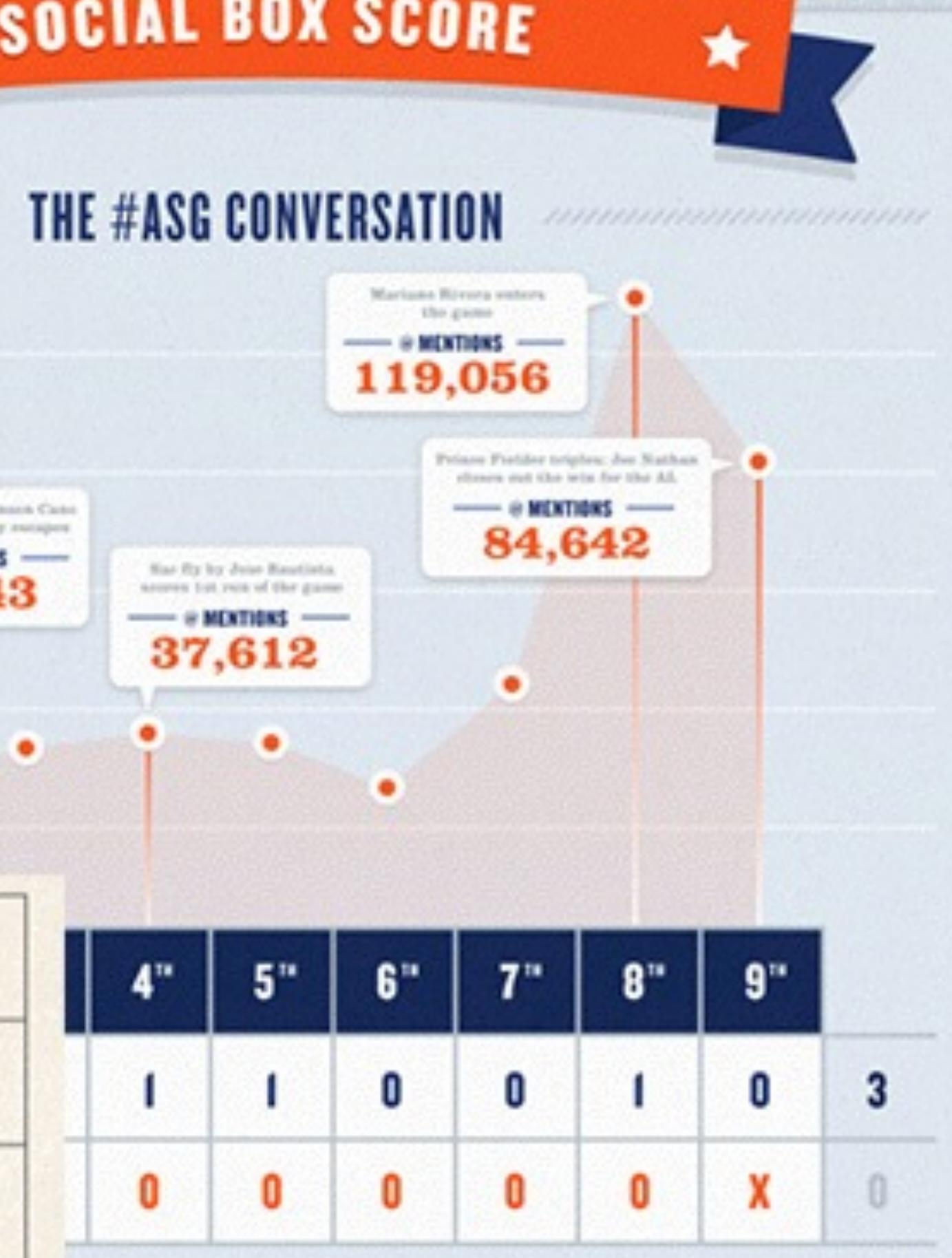
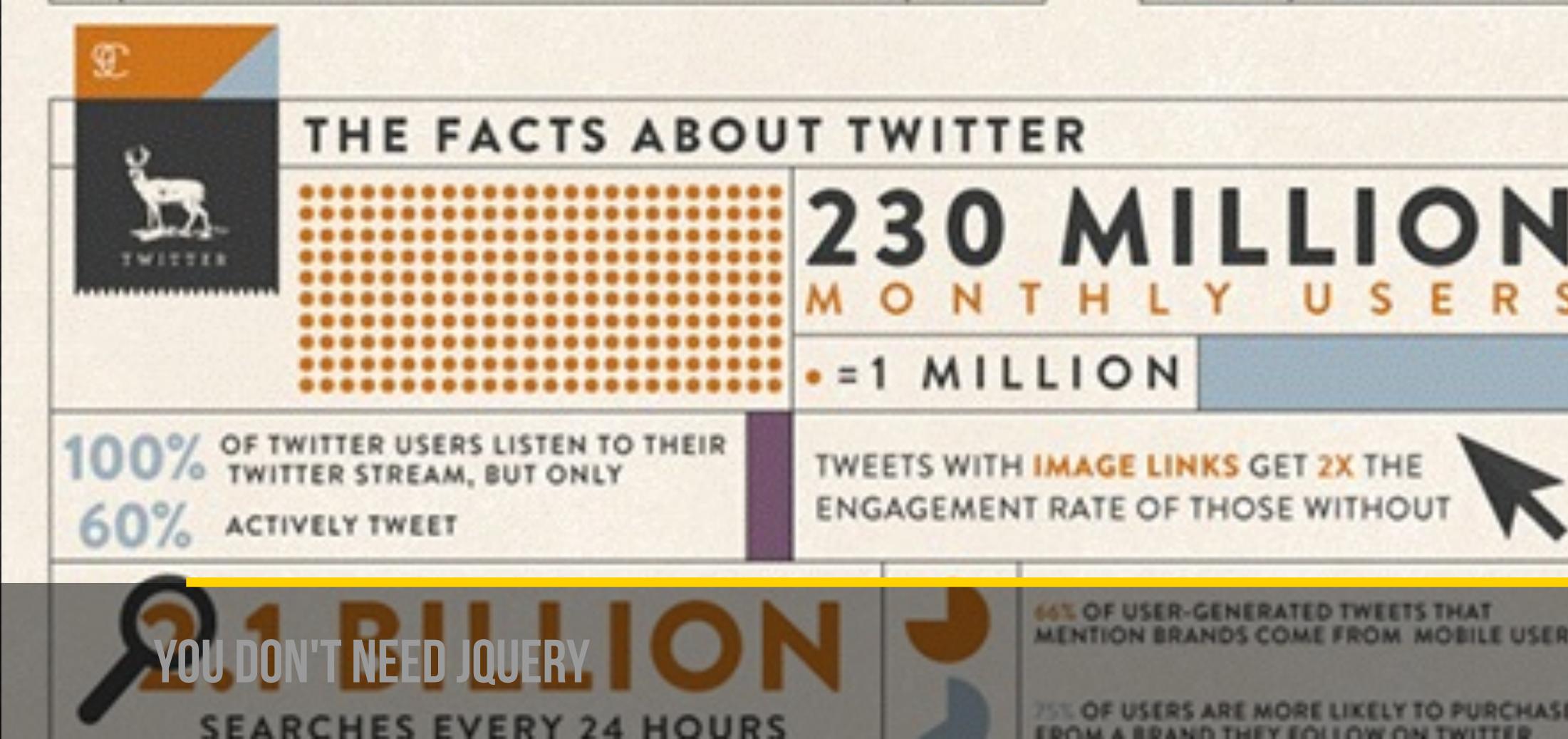
@joshbroton // joshbroton.com

WHO AM I?

- Sr Dev + Curmudgeon // Lemony



LEMONLY.COM/WORK



WHO AM I?

- Sr Dev + Curmudgeon // **Lemony**
- Founder // **standing.io**



DESIGN

CODE

BUSINESS

SPEAKERS

CONFERENCES

SHORT TALKS

MOST LIKES

VIEWS

DATE ADDED

STANDING.IO

Real World NodeJS - Creating the next generation of web applications

Dawn of the Devs

Views: 27 | 0 0

HTML.future - What the Web Needs Next

Views: 1 | 0 0

Fast Test, Slow Test

Views: 6 | 0 0



Mike Monteiro: What Clients Don't Know (and Why It's Your Fault)

YOU DON'T NEED JQUERY



@JOSH BROTON

WHO AM I?

- Sr Dev + Curmudgeon // **Lemony**
- Founder // **standing.io**
- Frontend Dev // **kidblog.org**



WHO AM I?

- Sr Dev + Curmudgeon // **Lemony**
- Founder // **standing.io**
- Frontend Dev // **kidblog.org**
- Founder // **3themes**



3themes?

(More like 1theme, amirite?)

Latest Posts

My Thoughts on ‘Frozen’ Wrapped Up in One Perfect Sentence

*Brot*y • April 8, 2014

I’ve watched the newest Disney movie, “Frozen”, about 1,000,000,000,000 times since it was released on DVD a month ago. I could never quite put into words my feelings about it. Luckily, [Heather Armstrong put it perfectly](#):

...we, you and I, we deserve a cookie for not flinging whatever device they are using to watch that movie ONE MORE DAMN TIME out a two-story window, shrugging our shoulders and calmly explaining, “She did just tell me to let it go.”

So yeah. Being a parent comes with many amazing things, many awful things, and Frozen. #*@&!\$(% Frozen...

More thoughts on Frozen later, but until then, hattip to [Chris Ford](#) for the link.

Categories: [Life](#), [Parenting](#)

Tags: [Effing Frozen](#), [For the Billonth time](#), [Frozen](#)

YOU DON'T NEED JQUERY
A Bad Rock...

Search Aspects / Reference



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[Sticks, Spit, & Ducttape: Advanced Responsive Techniques](#)
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Feb. 24-28
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- [Absolute Positioning and Horizontal/Vertical @JOSH BROTON](#)
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I DON'T ALWAYS
HAVE ADD

BUT

DIYLOL.COM



**BROTY
+ DECONGESTANT
+ COFFEE
+ NERVES**



WHAT THIS TALK ISN'T

"Conference sessions should never aim to teach the audience something, but rather inspire them to want to learn."

- Ted Neward

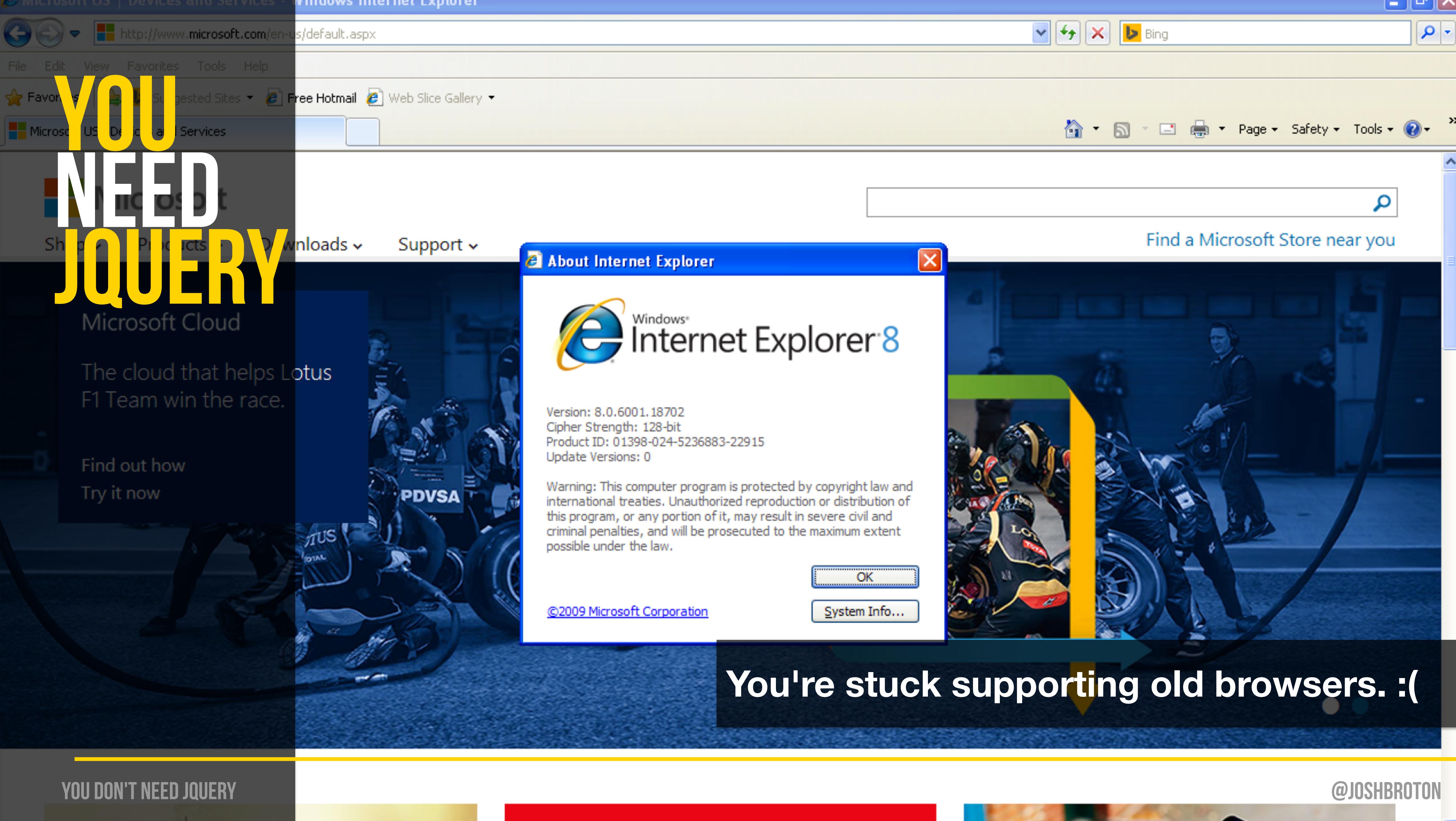
WHAT THIS TALK SHOULD BE

WHAT WE'RE COVERING

(You still have time to leave...

I hear **Nick**, **Josh**, and **Carolyn** are awesome)

1. You Need jQuery
2. Why you shouldn't use jQuery
3. Replacing jQuery



You're stuck supporting old browsers. :(

YOU NEED JQUERY



YOU DON'T NEED JQUERY

@JOSH BROTON

YOU NEED JQUERY

You don't control the production environment.

- WordPress plugins
- CMS users
- Unknown dependencies

YOU NEED JQUERY

Your clients hate it when you
break all the things.



YOU NEED JQUERY



You're vanillaJS averse

YOU NEED JQUERY

It's an internal-only project.



YOU NEED JQUERY

You live in the
edge cases.

YOU NEED JQUERY

This is jQuery's .addClass()

This is STILL jQuery's .addClass()

```
jQuery.fn.extend({
  addClass: function( value ) {
    var classes, elem, cur, clazz, j, finalValue,
      proceed = typeof value === "string" && value,
      i = 0,
      len = this.length;

    if ( jQuery.isFunction( value ) ) {
      return this.each(function( j ) {
        jQuery( this ).addClass( value.call( this, j, this.className ) );
      });
    }

    if ( proceed ) {
      // The disjunction here is for better compressibility (see removeClass)
      classes = ( value || "" ).match( rnotwhite ) || [];
      for ( ; i < len; i++ ) {
        elem = this[ i ];
        cur = elem.nodeType === 1 && ( elem.className ?
          ( " " + elem.className + " " ).replace( rclass, " " ) :
          " " );
        if ( cur ) {
          j = 0;
          while ( (clazz = classes[j++]) ) {
            if ( cur.indexOf( " " + clazz + " " ) < 0 ) {
              cur += clazz + " ";
            }
          }
        }
      }
      // only assign if different to avoid unneeded rendering.
      finalValue = jQuery.trim( cur );
      if ( elem.className !== finalValue ) {
        elem.className = finalValue;
      }
    }
    return this;
  },
});
```

WHAT WE'RE COVERING

1. You Need jQuery
2. Why you shouldn't use jQuery
3. Replacing jQuery

MILLISECONDS MATTER

"...**250 milliseconds** can be the difference between a return customer and an abandoned checkout cart."

"...every **100 milliseconds** of latency resulted in a 1% loss of sales."

"...lose 20% of their traffic for each **additional 100 milliseconds** it takes a page to load."

bit.ly/1hZ04et // bit.ly/1jlxMaC

LOW-HANGING FRUIT

(Download Latency)

"... add roughly **150ms** to 1 full second of load time..." - TJ Van Toll

Request Latency: **344ms**

Download: **108ms**

Average Hit: **452ms**

bit.ly/1ncPcg7



Average Hit:
452ms

bit.ly/1ncPcg7

LOW-HANGING FRUIT

(Parse / Execute)

Parsing and Executing jQuery on mobile:

IE11: 18ms

Chrome: 15ms

Safari: 9ms

Safari iOS7: 178ms

Android 2.2: 1184ms

Android 4.4: 603ms

Average Hit: 535ms



Average Hit:
535ms

bit.ly/1ncPcg7

452ms + 535ms =
987ms

bit.ly/1ncPcg7

```
$('.thing').addClass('active')
```

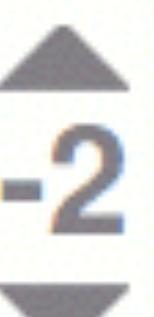
BUT JQUERY IS JUST SO EASY!

3 Answers

oldest newest votes

 You should definitely use jQuery. It's really great and does all things
22 link | edit | flag

 answered 11 minutes ago
I<3jQuery 1.234 2 13

To
 -1 not enough jQuery – ||sumc0da 30 secs ago
-2 link | edit | delete | flag

 answered 50 seconds ago
bobince some

-1 not enough jQuery – ||sumc0da 30 secs ago

you suck – Timothy Goatse 3 secs ago
add comment

bit.ly/QnuV92

BUT WHAT ABOUT A CDN?

"The chance that someone hitting a CDN has [cached your version of] jQuery is 1.7%."

- Alex Sexton



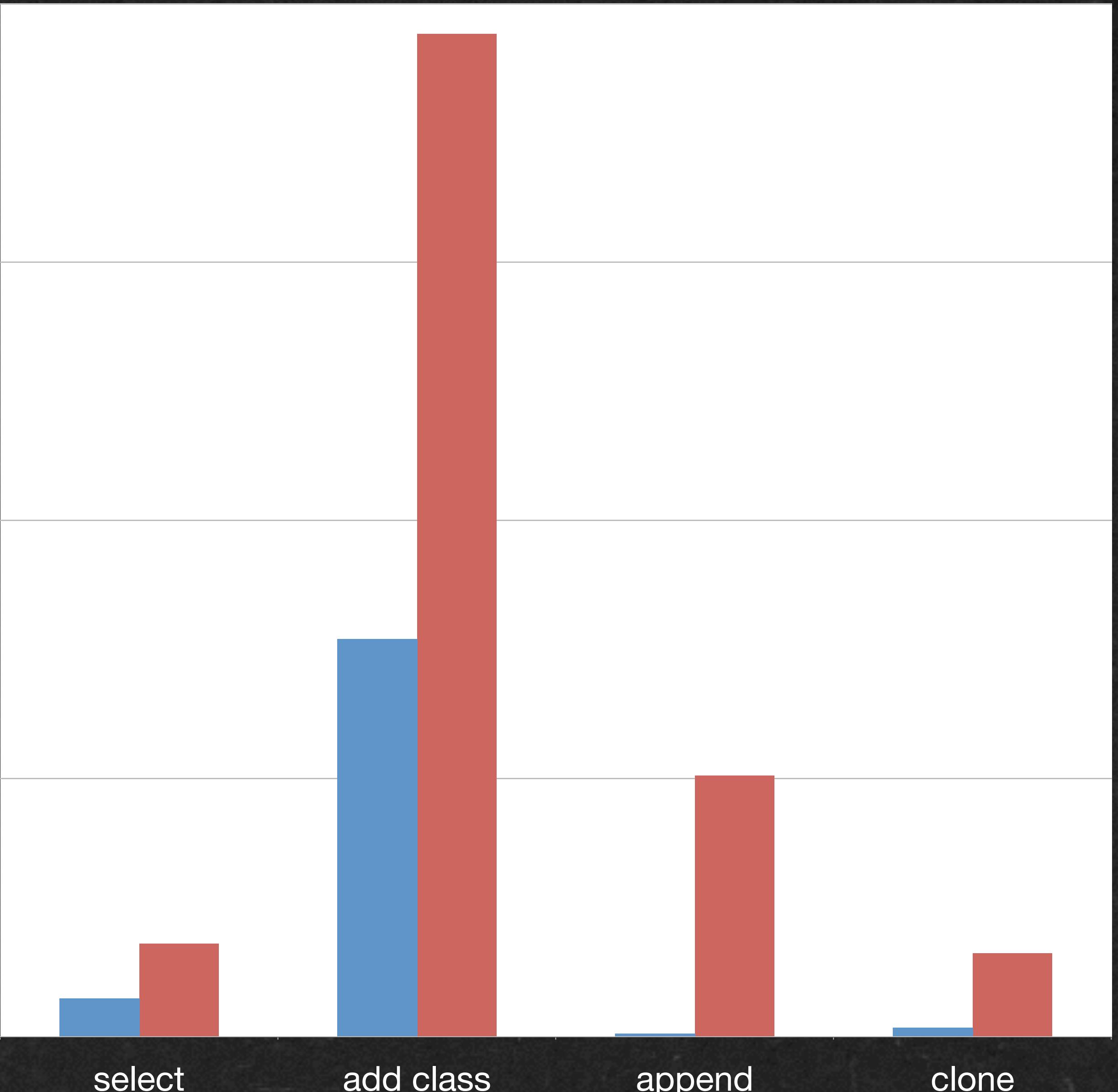
(that's really small)

bit.ly/QnuV92

OTHER PERFORMANCE IMPROVEMENTS

Does vanilla JS have speed benefits above jQuery?

Are they worth going after?

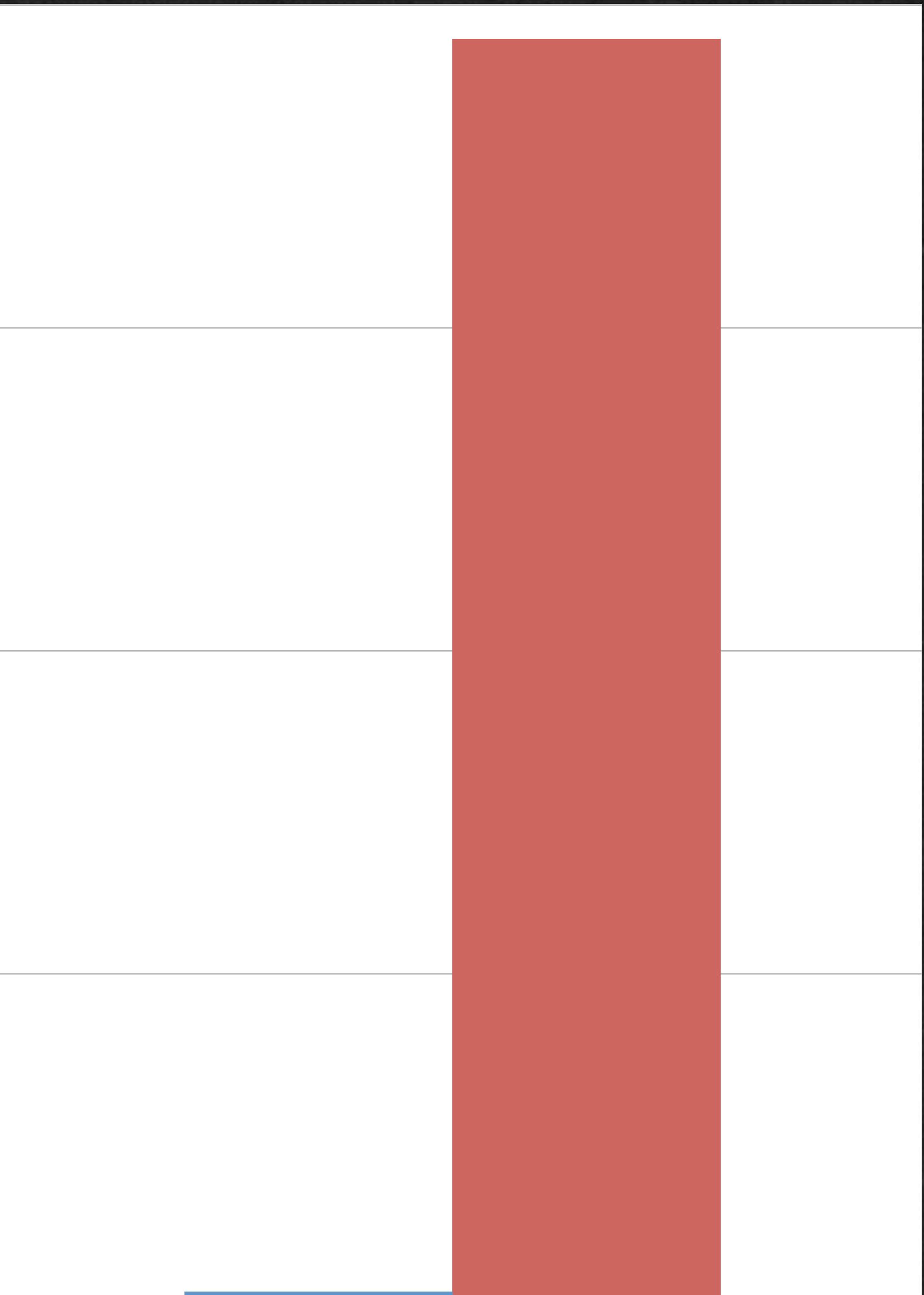


bit.ly/1kNgnuk

OTHER PERFORMANCE IMPROVEMENTS

What about loops?

JavaScript is ~290x faster



loops

bit.ly/1eNrG5P

WORTH THE EFFORT?

10ms + 10ms
+ 10ms + 10ms + 10ms + 10ms + 10ms + 10ms + 10ms + 10ms + 10ms + 10ms
+ 10ms + 10ms + 10ms + 10ms + 10ms + 10ms + 10ms + 10ms + 10ms + 10ms
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= A lot

bit.ly/1kNgnuk

IT'S. REALLY. THIS. BAD.



WHAT WE'RE COVERING

1. You need jQuery
2. Why you shouldn't use jQuery
3. Replacing jQuery

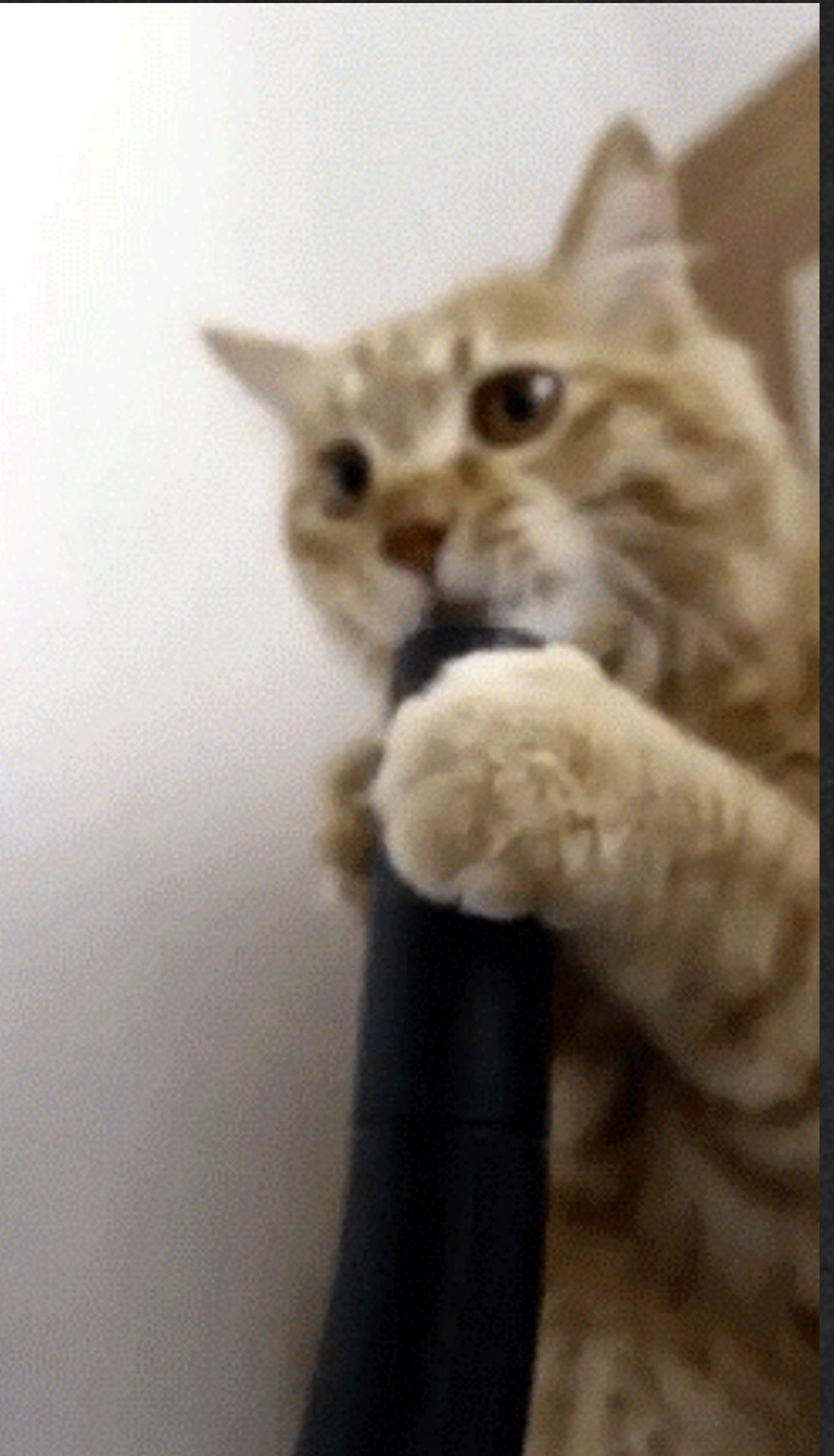
(why we were t

REJOICE

JOY







LESSON 1: THE DOM

"The Document Object Model (DOM) is a cross-platform and language-independent convention for representing and interacting with objects in HTML, XHTML and XML documents.[1] Objects in the DOM tree may be addressed and manipulated by using methods on the objects. The public interface of a DOM is specified in its application programming interface (API)." (wikipedia)

TL;DR: The DOM is the whole set of elements on a page.

JavaScript interacts with the DOM through the native DOM API.

```
<!DOCTYPE html>
▼<html class=" js flexbox canvas canvastext webgl no-touch geolocation postmessage websqldatabase backgroundsize borderimage borderradius boxshadow textshadow opacity cssanimations csscolumns cssgeneratedcontent video audio localstorage sessionstorage webworkers applicationcache svg inlinesvg " style=" height: 100%; >
  ▶<head>...</head>
  ▼<body class="home blog">
    ▼<div class="wrapper" role="document">
      ▶<header class="header-main">...</header>
      ▼<section class="content row">
        ▼<main class="content--body content-main" role="main">
          ▶<header class="page--header">
            <h1 class="page--title">
              Latest Posts </h1>
            </header>
            ▶<article class="post-1399 post type-post status-publish format-standard hentry category-122 tag-block-element tag-horizontally-center tag-transform tag-translate tag-vertically-center">...</article>
            ▶<article class="post-1389 post type-post status-publish format-standard hentry category-122 tag-block-element tag-horizontally-center tag-transform tag-translate tag-vertically-center">...</article>
            ▶<article class="post-1295 post type-post status-publish format-standard hentry category-122 tag-block-element tag-horizontally-center tag-transform tag-translate tag-vertically-center">...</article>
            ::before
            ▼<header>
              ▼<h1 class="post--title">
                <a href="/absolute-positioning-and-horizontal-vertical-centering/">Absolute Positioning and Horizontal Vertical Centering</a>
              </h1>
            </header>
            ▼<section class="post--byline">
              ▼<span class="byline--author author vcard">
                <a href="http://joshbroton.com/author/joshbrotonmail-com/" rel="author" class="fn">joshbrotonmail.com</a>
              </span>
              " . "
              <time class="byline--date published" datetime="2014-02-06T04:26:51+00:00">February 6, 2014</time>
            </section>
            ▶<div class="post--summary">...</div>
            ▶<footer class="post--metadata">...</footer>
            ::after
          </article>
          ▶<article class="post-1273 post type-post status-publish format-standard hentry category-122 tag-block-element tag-horizontally-center tag-transform tag-translate tag-vertically-center">...</article>
          ▶<article class="post-1253 post type-post status-publish format-standard hentry category-122 tag-block-element tag-horizontally-center tag-transform tag-translate tag-vertically-center">...</article>
          ::before
          ▶<header>...</header>
          ▼<section class="post--byline">...</section>
          ▶<div class="post--summary">...</div>
          ▶<footer class="post--metadata">...</footer>
```

LESSON 1: THE DOM

jQuery is just a DOM API polyfill.

```
<!DOCTYPE html>
<html class=" js flexbox canvas canvastext webgl no-touch geolocation postmessage websqldatabase backgroundsize borderimage borderradius boxshadow textshadow opacity cssanimations csscolumns cssgeneratedcontent video audio localstorage sessionstorage webworkers applicationcache svg inlinesvg fontface">
  <head>...</head>
  <body class="home blog">
    <div class="wrapper" role="document">
      <header class="header-main">...</header>
      <section class="content row">
        <main class="content--body content-main" role="main">
          <header class="page--header">
            <h1 class="page--title">
              Latest Posts </h1>
            </header>
          <article class="post-1399 post type-post status-publish format-standard hentry category-absolute-positioning-and-horizontal-vertical-centering">...</article>
          <article class="post-1389 post type-post status-publish format-standard hentry category-absolute-positioning-and-horizontal-vertical-centering">...</article>
          <article class="post-1295 post type-post status-publish format-standard hentry category-tag-block-element tag-horizontally-center tag-transform tag-translate tag-vertically-center">...</article>
          <::before>
          <header>
            <h1 class="post--title">
              <a href="/absolute-positioning-and-horizontal-vertical-centering/">Absolute Positioning and Horizontal Vertical Centering</a>
            </h1>
          </header>
          <section class="post--byline">
            <span class="byline--author author vcard">
              <a href="http://joshbroton.com/author/joshbrotongmail-com/" rel="author" class="fn">joshbrotongmail-com</a>
            </span>
            " • "
            <time class="byline--date published" datetime="2014-02-06T04:26:51+00:00">February 6, 2014</time>
          </section>
          <div class="post--summary">...</div>
          <footer class="post--metadata">...</footer>
          <::after>
        </article>
        <article class="post-1273 post type-post status-publish format-standard hentry category-events">...</article>
        <article class="post-1253 post type-post status-publish format-standard hentry category-events tag-javascript tag-onscroll tag-setinterval tag-window-onscroll">...</article>
        <::before>
        <header>...</header>
        <section class="post--byline">...</section>
        <div class="post--summary">...</div>
        <footer class="post--metadata">...</footer>
      </main>
    </section>
  </body>
</html>
```

LESSON 1A: DOM NODES

```
<!DOCTYPE html>
▼<html class=" js flexbox canvas canvastext webgl no-touch geolocation postmessage websqldatabase backgroundsize borderimage borderradius boxshadow textshadow opacity cssanimations csscolumns generatedcontent video audio localstorage sessionstorage webworkers applicationcache svg inlinesvg flexboxgrid" role="document">
  ▷<head>...</head>
  ▷<body class="home blog">
    ▷<div class="wrapper" role="document">
      ▷<header class="header-main">...</header>
      ▷<section class="content row">
        ▷<main class="content--body content-main" role="main">
          ▷<header class="page--header">
            ▷<h1 class="page--title">
              Latest Posts </h1>
            </header>
          ▷<article class="post-1399 post type-post status-publish format-standard hentry category-1">...</article>
          ▷<article class="post-1389 post type-post status-publish format-standard hentry category-1">...</article>
          ▷<article class="post-1295 post type-post status-publish format-standard hentry category-1 tag-block-element tag-horizontally-center tag-transform tag-translate tag-vertically-center">
            ▷<::before>
            ▷<header>
              ▷<h1 class="post--title">
                ▷<a href="/absolute-positioning-and-horizontal-vertical-centering/">Absolute Positioning and Horizontal Vertical Centering</a>
              </h1>
            </header>
            ▷<section class="post--byline">
              ▷<span class="byline--author author vcard">
                ▷<a href="http://joshbroton.com/author/joshbrotongmail-com/" rel="author" class="fn">joshbrotongmail-com</a>
              </span>
              ...
              ▷<time class="byline--date published" datetime="2014-02-06T04:26:51+00:00">February 6, 2014</time>
            </section>
            ▷<div class="post--summary">...</div>
            ▷<footer class="post--metadata">...</footer>
            ▷<::after>
          </article>
          ▷<article class="post-1273 post type-post status-publish format-standard hentry category-1">...</article>
          ▷<article class="post-1253 post type-post status-publish format-standard hentry category-1 tag-events tag-javascript tag-onscroll tag-setinterval tag-window-onscroll">
            ▷<::before>
            ▷<header>...</header>
            ▷<section class="post--byline">...</section>
            ▷<div class="post--summary">...</div>
            ▷<footer class="post--metadata">...</footer>
          </article>
        </main>
      </section>
    </body>
  </html>
```

DOM Node

DOM Node

DOM Node

Yep... DOM Node

JavaScript is
for interacting
with these
DOM nodes.

LESSON 2: BASIC JQUERY

```
$(' .thing' ).addClass( 'new-class' );
```

"Use jQuery..."



"...on these nodes..."

"...and do this..."



"...with this information"



LESSON 3: JQUERY + DOM NODES

```
$('.home').addClass('new-class');
```



```
<!DOCTYPE html>
<html class=" js flexbox canvas canvastext webgl no-touch geolocation postmessage websqldatabase indexeddb backgroundsize borderimage borderradius boxshadow textshadow opacity cssanimations csscolumns cssgradients generatedcontent video audio localstorage sessionstorage webworkers applicationcache svg inlinesvg smil">
  <head>...</head>
  <body class="home blog new-class">
    <div class="wrapper" role="document">
      <header class="header-main">
        <nav class="nav-quicklinks" role="navigation">
          </nav>
        <div class="header--inner">
          <section class="open-button-wrapper">...</section>
          <nav class="nav-main" role="navigation">
            <div class="menu-header-menu-container">...</div>
          </nav>
          <section class="search" role="search">...</section>
          <h1 class="header--blog-name">...</h1>
        </div>
      </header>
      <section class="content row">
        <main class="content--body content-main" role="main">
          <header class="page--header">...</header>
          <article class="post-1399 post type-post status-publish format-standard hentry category-life c...">...
          <article class="post-1389 post type-post status-publish format-standard hentry category-life c...">...
          <article class="post-1295 post type-post status-publish format-standard hentry category-css ca...">...
          <header>
            <h1 class="post--title">
              <a href="/absolute-positioning-and-horizontal-vertical-centering/">Absolute Positioning a...
            </h1>
          </header>
          <section class="post--byline">...</section>
          <div class="post--summary">...</div>
          <footer class="post--metadata">...</footer>
        </article>
        <article class="post-1273 post type-post status-publish format-standard hentry category-music...">...
        <article class="post-1253 post type-post status-publish format-standard hentry category-javasc...">...
      </main>
    </div>
  </body>
</html>
```

LESSON 4: VANILLA JAVASCRIPT

```
document.querySelectorAll('.thing').className += ' new-class';
```



"Interact with the DOM..." "...specifically these nodes..." "...and do this"

LESSON 5: JAVASCRIPT + DOM NODES

```
document.querySelector('.home')  
.className += ' new-class';
```



```
<!DOCTYPE html>  
▼<html class=" js flexbox canvas canvastext webgl no-touch geolocation postmessage websqldatabase indexeddb backgroundsize borderimage borderradius boxshadow textshadow opacity cssanimations csscolumns cssgradients generatedcontent video audio localstorage sessionstorage webworkers applicationcache svg inlinesvg smil">  
► <head>...</head>  
▼<body class="home blog new-class">  
  <div class="wrapper" role="document">  
    ▼<header class="header-main">  
      <nav class="nav-quicklinks" role="navigation">  
        </nav>  
      ▼<div class="header--inner">  
        ►<section class="open-button-wrapper">...</section>  
        ▼<nav class="nav-main" role="navigation">  
          ►<div class="menu-header-menu-container">...</div>  
        </nav>  
        ►<section class="search" role="search">...</section>  
        ►<h1 class="header--blog-name">...</h1>  
      </div>  
    </header>  
    ▼<section class="content row">  
      ▼<main class="content--body content-main" role="main">  
        ►<header class="page--header">...</header>  
        ►<article class="post-1399 post type-post status-publish format-standard hentry category-life c...</article>  
        ►<article class="post-1389 post type-post status-publish format-standard hentry category-life c...</article>  
        ▼<article class="post-1295 post type-post status-publish format-standard hentry category-css ca...</article>  
          ::before  
          ▼<header>  
            ▼<h1 class="post--title">  
              <a href="/absolute-positioning-and-horizontal-vertical-centering/">Absolute Positioning a...</a>  
            </h1>  
          </header>  
          ►<section class="post--byline">...</section>  
          ►<div class="post--summary">...</div>  
          ►<footer class="post--metadata">...</footer>  
          ::after  
        </article>  
      <article class="post-1273 post type-post status-publish format-standard hentry category-music...</article>  
      <article class="post-1253 post type-post status-publish format-standard hentry category-javasc...</article>  
      <article class="post-1223 post type-post status-publish format-standard hentry category-life t...</article>
```

LESSON 6: JAVASCRIPT SELECTORS

```
$('body') → document.getElementsByTagName('body')  
$('.home') → document.querySelectorAll('slabmetør')  
$('#home') → document.getElementById('#home')
```

LESSON 6: JAVASCRIPT SELECTORS

```
var bodyEl = $('body');
```



```
var bodyEl = document.querySelector('body');
```

LESSON 7: CLASS MANIPULATION

```
bodyEl.addClass('newclass');
```



```
bodyEl.className += ' newclass';
```

LESSON 7: CLASS MANIPULATION

```
bodyEl.removeClass( 'newclass' );
```



```
bodyEl.className.remove( 'newclass' );
```

LESSON 8: STYLE MANIPULATION

```
bodyEl.hide();
```



```
bodyEl.style.display = 'none';
```

LESSON 8: STYLE MANIPULATION

```
bodyEl.css('background', 'red');
```



```
bodyEl.style.background = 'red';
```

LESSON 9: DOM NODE MOVEMENT

```
parent.append(divEl);
```



```
parent.appendChild(divEl);
```

LESSON 10: AJAX

```
$.get('/path/to/api', function(data, status) {  
    $('body').html(data);  
});
```

LESSON 10: AJAX

```
var xhr = new XMLHttpRequest();
xhr.open('GET', '/path/to/api');
xhr.onreadystatechange = function() {
  if(xhr.readyState != 4) { return; }
  document.querySelector('body')
    .innerHTML = xhr.responseText;
}
xhr.send();
```

FURTHER LEARNING RESOURCES

- vanilla-js.com
- youmightnotneedjquery.com
- Mozilla Developer Network
- github.com/joshbroton/you-dont-need-jquery

THANK YOU!

@joshbroton // joshbroton.com

