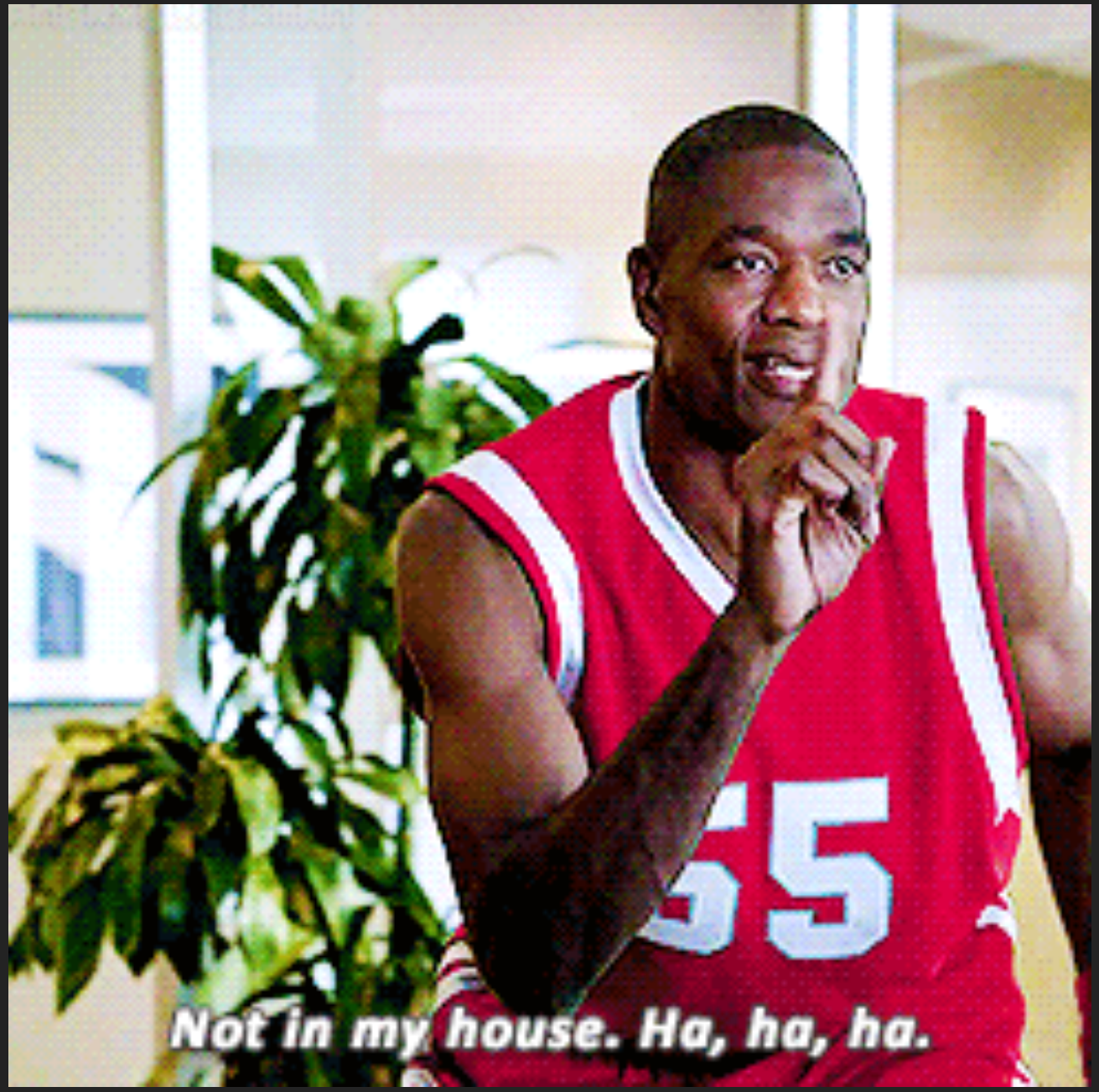
REACT+ WORDPRESS

a match made in heaven

JOSH BROTON

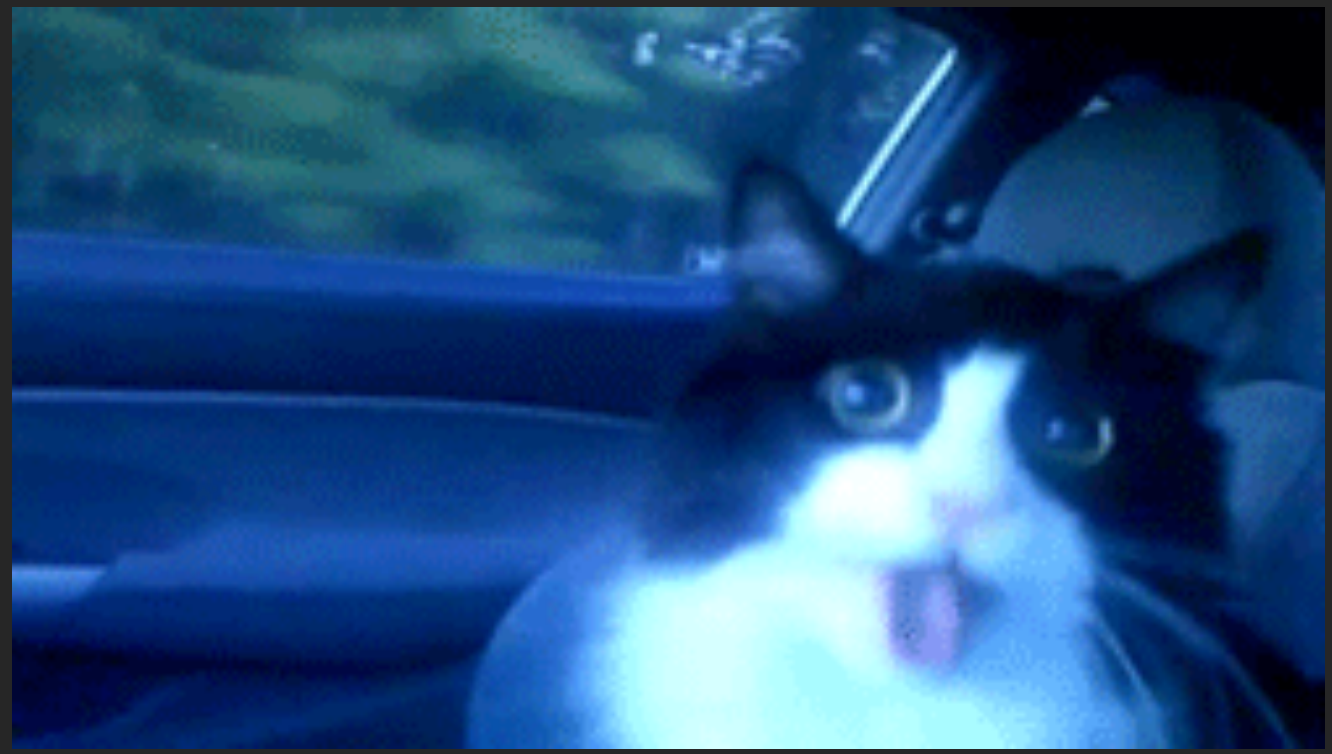
@joshbroton || joshbroton.com

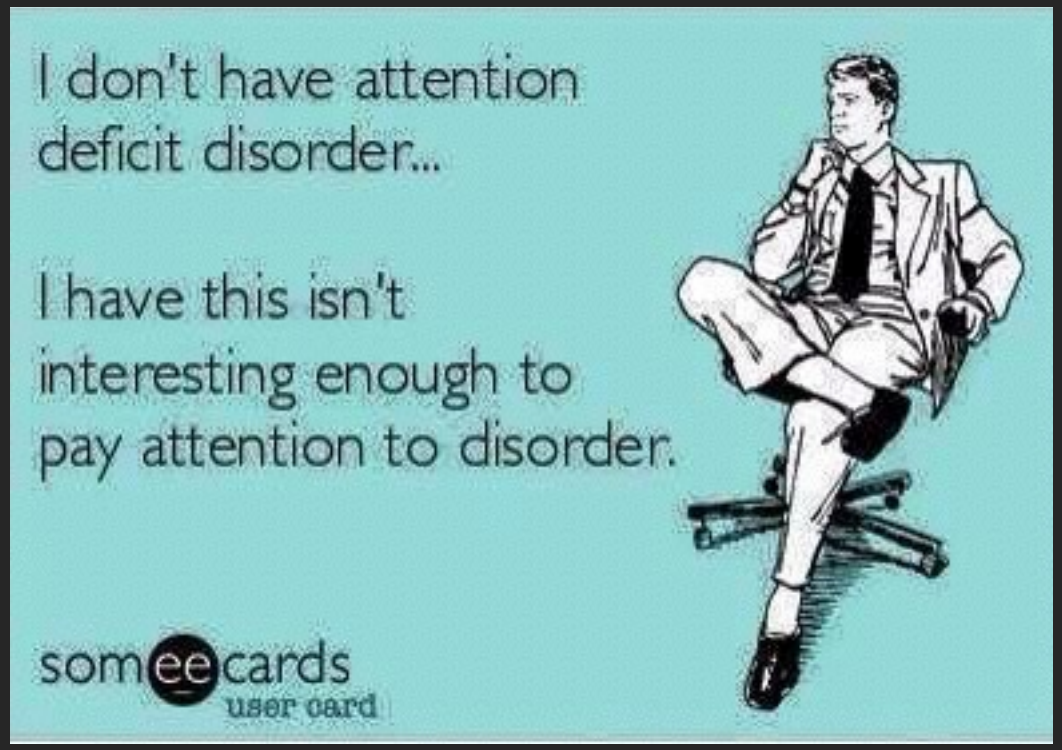

Not in my house. Ha, ha, ha.


HilariousGifs.com

- OWNER/FOUNDER:
  BROTON DIGITAL CONSULTING
- FOUNDER:
  PRESTIGE CONFERENCE
- JAVASCRIPT/FRONTEND:
  SLICEENGINE, VIDSCRIP,
  OTHER STARTUPS


If I had a dollar for everytime I got distracted, I wish I had some ice cream.
someecards
user card




I don't have attention deficit disorder...
I have this isn't interesting enough to pay attention to disorder.
someecards
user card

BROTY
+ DECONGESTANTS
+ COFFEE
+ NERVES

WHAT THIS TALK SHOULD BE

> CONFERENCE SESSIONS SHOULD NEVER AIM TO TEACH THE AUDIENCE SOMETHING, BUT RATHER INSPIRE THEM TO WANT TO LEARN.
>
> - TED NEWARD

WHAT WE'RE COVERING

(I hear Dwayne, et al, have awesome sessions)

01 WTF IS A SPA? WHY A SPA?

02 WHY / WHY NOT REACT?

03 REACT + WORDPRESS

01

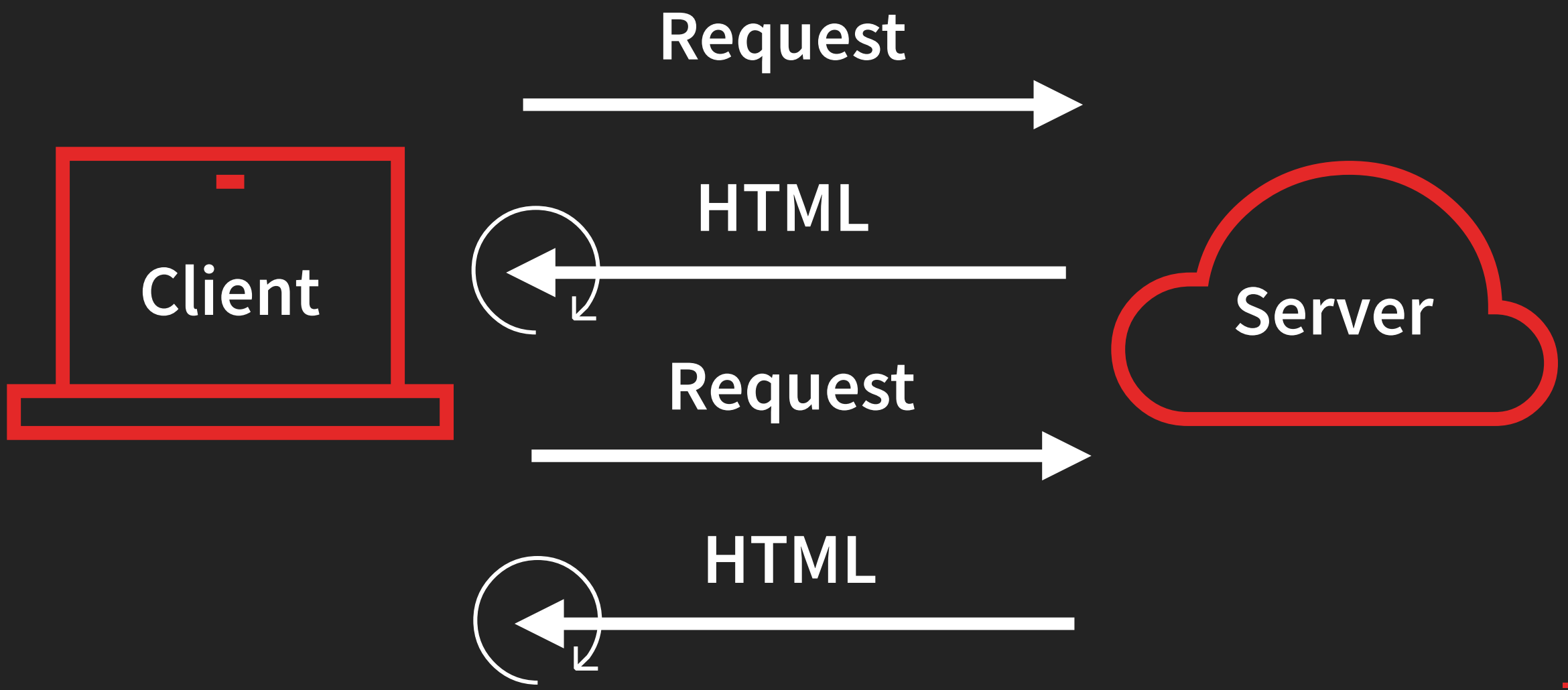
WHAT IS A SPA?

01

WHAT IS A SPA?

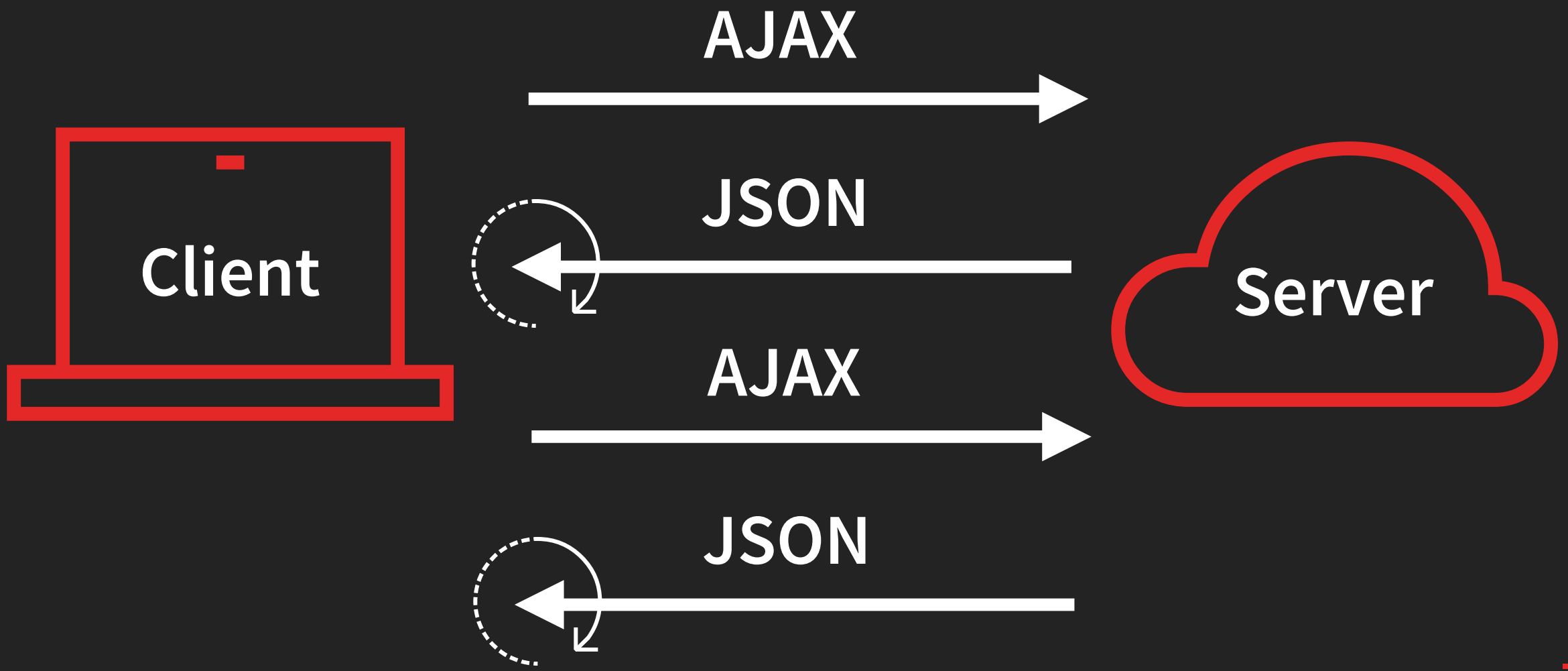
Single Page App

TYPICAL WEB SITE:



SINGLE PAGE APP:

SINGLE PAGE APP:




4GIFs.com

THE SPA ADVANTAGE

- OFFLOADS PROCESSING TO CLIENTS
- FRONT-END CODE IS EASIER TO TEST
- FASTER ON SUBSEQUENT PAGE LOADS
- SCALES WITH LARGE DATA SETS

02

WHY REACT?

02

WHY REACT?


2007
GWT
SO HOT RIGHT NOW
2009
EXTJS
SO HOT RIGHT NOW
2012
KNOCKOUT
SO HOT RIGHT NOW
2013
BACKBONE
SO HOT RIGHT NOW
2014
ANGULAR
SO HOT RIGHT NOW
2015
REACT
SO HOT RIGHT NOW

02

WHY REACT?

2014: THE YEAR OF VANILLA JAVASCRIPT

02

WHY REACT?

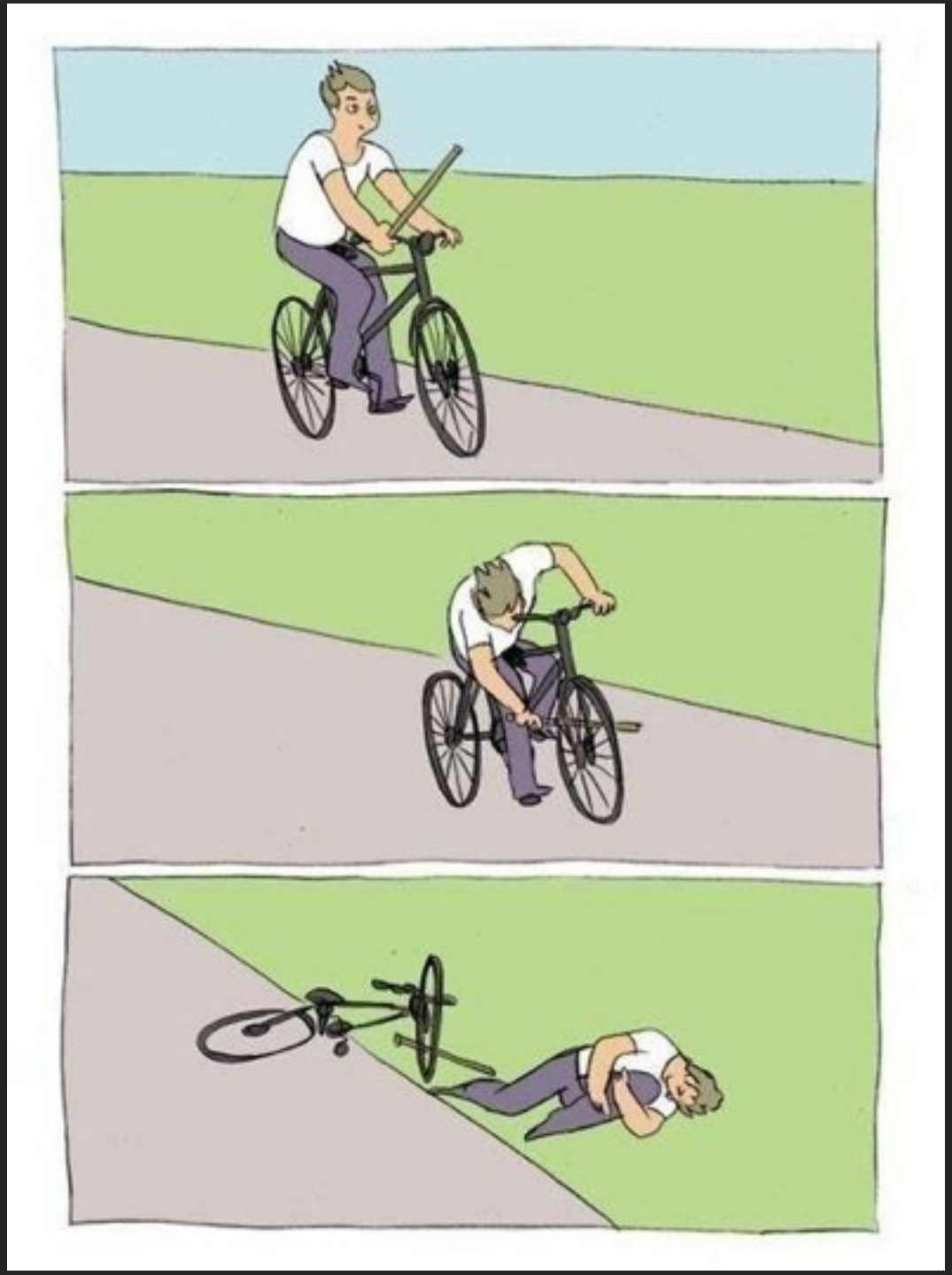
2016: THE YEAR OF THE FRAMEWORK

02

WHY REACT?

02

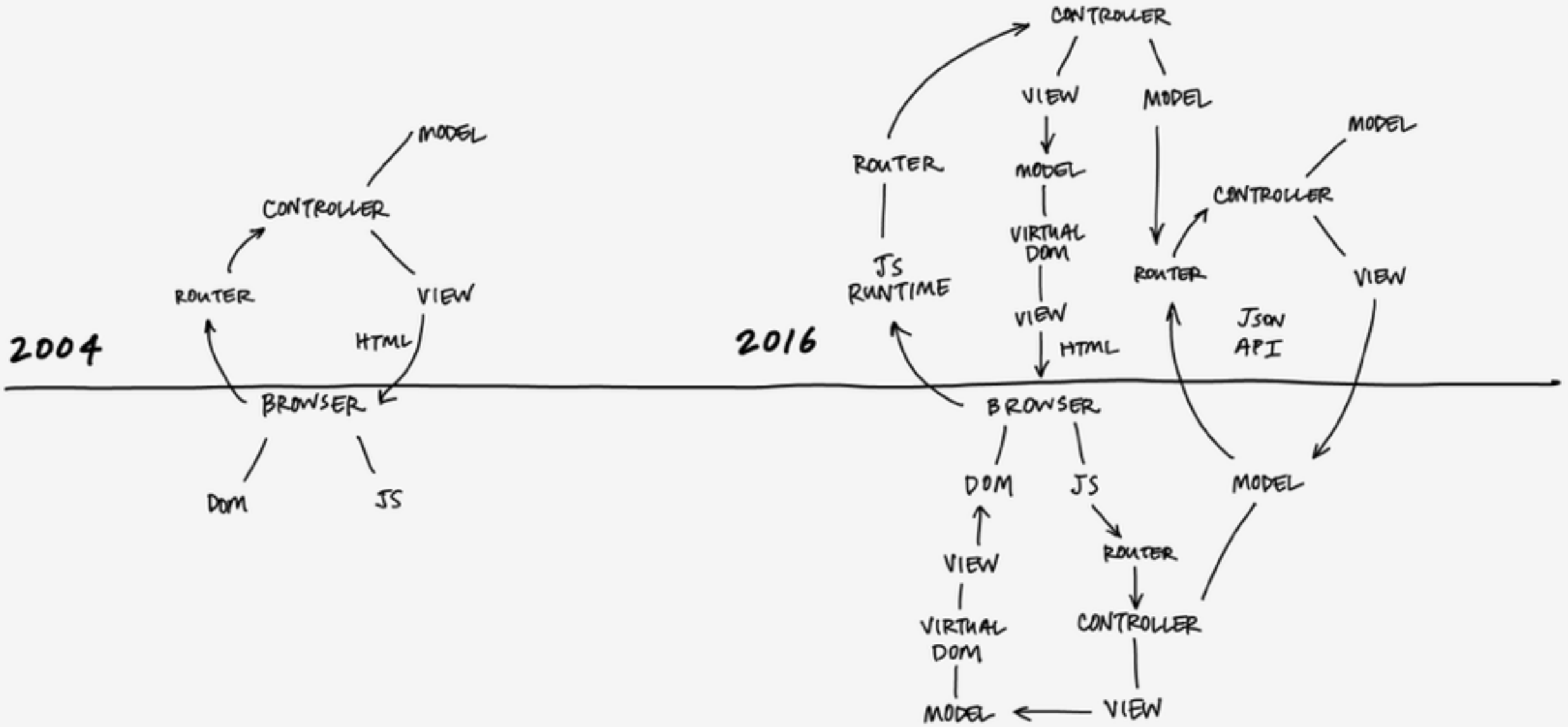
WHY REACT?



02

WHY REACT?

02
WHY REACT?



source: Sam Stephenson on Twitter

Ada Rose Edwards
@Lady_Ada_King

Follow

The nice thing about the web is the diagram on the left hand side still applies if you want it to.

Sam Stephenson @sstephenson

12 years of progress?

RETWEETS 20 LIKES 28

10:55 AM - 10 May 2016

02

WHY REACT?

JSX IS OUTSTANDING

02
WHY REACT?

```
(
   <article className="some-blog-post">
      <header className="post__header">
         <h1>
            {post.title.replace('"', ''}
         </h1>
         <aside className="byline">
            {generatePostAuthorLink(post.author)}
         </aside>
      </header>
      <div className="post__content">
         {post.content}
      </div>
      ...
   </article>
)
```

02

WHY REACT?

```
(
   <article className="some-blog-post">
      <PostHeader title={post.title} author={post.author} />
      <PostContent content={post.content} />
      <PostFooter categories={post.categories} />
   </article>
)
```

02

WHY REACT?

```
(
   this.state.posts.map((post) => {
      return (
         <article className="some-blog-post">
            <PostHeader title={post.title} author={post.author} />
            <PostContent content={post.content} />
            <PostFooter categories={post.categories} />
         </article>
      )
   }
)
```

02
WHY REACT?

```
(
   {this.state.showPost == true ? (
      <article className="some-blog-post">
         <PostHeader title={post.title} author={post.author} />
         <PostContent content={post.content} />
         <PostFooter categories={post.categories} />
      </article>
   ) : null }
)
```

02

WHY REACT?

JSX IS OUTSTANDING

REACT SYNTAX IS SIMPLE

02

WHY REACT?

```
(
   <article className="some-blog-post">
      <PostHeader title={post.title} author={post.author} />
      <PostContent content={post.content} />
      <PostFooter categories={post.categories} />
   </article>
)
```

02

WHY REACT?

```
class PostHeader extends Component {
    componentWillMount() { }

}
```

02

WHY REACT?

```
class PostHeader extends Component {
    componentWillMount() { }
    componentDidMount() { }

}
```

02

WHY REACT?

```
class PostHeader extends Component {
    componentWillMount() { }
    componentDidMount() { }
    componentWillReceiveProps(nextProps) { }
    ...
}
```

02

WHY REACT?

```
class PostHeader extends Component {
    componentWillMount() { }
    componentDidMount() { }
    componentWillReceiveProps(nextProps) { }
    shouldComponentUpdate(nextProps,nextState) { //can return false }




}
```

02

WHY REACT?

```
class PostHeader extends Component {
    componentWillMount() { }
    componentDidMount() { }
    componentWillReceiveProps(nextProps) { }
    shouldComponentUpdate(nextProps,nextState) { //can return false }
    componentWillUpdate(nextProps,nextState) { }



}
```

02

WHY REACT?

```
class PostHeader extends Component {
    componentWillMount() { }
    componentDidMount() { }
    componentWillReceiveProps(nextProps) { }
    shouldComponentUpdate(nextProps,nextState) { //can return false }
    componentWillUpdate(nextProps,nextState) { }
    componentDidUpdate(prevProps,prevState)



}
```

02

WHY REACT?

```
class PostHeader extends Component {
    componentWillMount() { }
    componentDidMount() { }
    componentWillReceiveProps(nextProps) { }
    shouldComponentUpdate(nextProps,nextState) { //can return false }
    componentWillUpdate(nextProps,nextState) { }
    componentDidUpdate(prevProps,prevState)
    componentWillUnmount() { }


}
```

02

WHY REACT?

```
class PostHeader extends Component {
    componentWillMount() { }
    componentDidMount() { }
    componentWillReceiveProps(nextProps) { }
    shouldComponentUpdate(nextProps,nextState) { //can return false }
    componentWillUpdate(nextProps,nextState) { }
    componentDidUpdate(prevProps,prevState)
    componentWillUnmount() { }

    render() { }
}
```

02

WHY REACT?

```
class PostHeader extends Component {
    render() {
        return (
            <header className="post__header">
                <a href={this.props.permalink} target="_blank">
                    <h1>
                        {this.props.title}
                    </h1>
                </a>
                <aside className="byline">
                    {this.props.author}
                </aside>
            </header>
        )
    }
}
```

02

WHY REACT?

```
class PostHeader extends Component {
    render() {
        return (
            <header className="post__header">
                <a href={this.props.permalink} target="_blank">
                    <h1>
                        {this.props.title}
                    </h1>
                </a>
                <aside className="byline"
                        onClick={this.showAuthorModal.bind(this)}>
                    {this.props.author}
                </aside>
            </header>
        )
    }
}
```

02

WHY REACT?

```
class PostHeader extends Component {
    render() {
        return (
            <header className="post__header">
                <a href={this.props.permalink} target="_blank">
                    <h1>
                        {this.props.title}
                    </h1>
                </a>
                {this.props.author != this.state.user ? (
                    <aside className="byline"
                           onClick={this.showAuthorModal.bind(this)}>
                        {this.props.author}
                    </aside>
                ) : null }
            </header>
        )
```

02

WHY REACT?

```
class PostHeader extends Component {
    render() {
        return (
            <header className="post__header">
                <a onClick={this.props.openPostIniFrame.bind(this)}>
                    <h1>
                        {this.props.title}
                    </h1>
                </a>
                {this.props.author != this.state.user ? (
                    <aside className="byline"
                           onClick={this.showAuthorModal.bind(this)}>
                        {this.props.author}
                    </aside>
                ) : null }
            </header>
        )
```

02

WHY REACT?

```
class PostHeader extends Component {
   render() {
      return (
         <header className="post__header">
            <h1 role="button"
                onClick={this.props.openPostIniFrame.bind(this)}>
               {this.props.title}
            </h1>
            {this.props.author != this.state.user ? (
               <aside className="byline"
                      onClick={this.showAuthorModal.bind(this)}>
                  {this.props.author}
               </aside>
            ) : null }
         </header>
      )
   }
```

02

WHY REACT?

```
class PostHeader extends Component {
   render() {
      return (
         <header className="post__header">
            <h1 role="button"
                onClick={this.props.openPostIniFrame.bind(this)}
                className={classNames({'read-title': this.hasRead()})}>
               {this.props.title}
            </h1>
            {this.props.author != this.state.user ? (
               <aside className="byline"
                      onClick={this.showAuthorModal.bind(this)}>
                  {this.props.author}
               </aside>
            ) : null }
         </header>
      )
```

02
WHY REACT?

```
class PostHeader extends Component {
   render() {
      if(this.props.isFetchingPosts == true) {
         return <LoadingSpinner />
      } else {
         return (
            <header className="post__header">
               <h1 role="button"
                  onClick={this.props.openPostIniFrame.bind(this)}
                  className={classNames({'read-title': this.hasRead()})}>
                  {this.props.title}
               </h1>
               {this.props.author != this.state.user ? (
                  <aside className="byline"
                         onClick={this.showAuthorModal.bind(this)}>
                     {this.props.author}
                  </aside>
```

02

WHY REACT?

```
class Post extends Component {
    render() {
        if(this.props.isFetchingPosts == true) {
            return <LoadingSpinner />
        } else {
            return (
                <article className="some-blog-post">
                    <PostHeader title={post.title} author={post.author} />
                    <PostContent content={post.content} />
                    <PostFooter categories={post.categories} />
                </article>
            )
        }
    }
}
```

02

WHY REACT?

JSX IS OUTSTANDING

REACT SYNTAX IS SIMPLE

REACT FAILS FAST AT COMPILE TIME

02

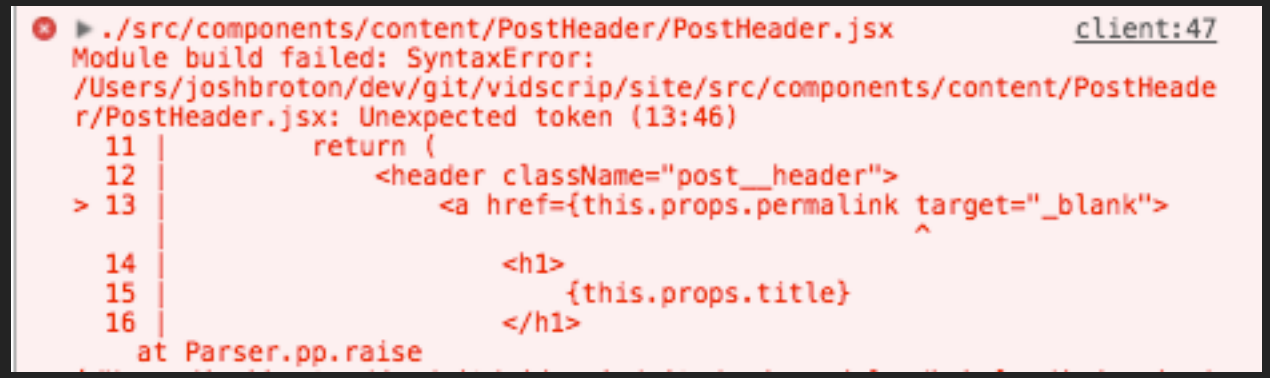
WHY REACT?

```
class PostHeader extends Component {
    render() {
        return (
            <header className="post__header">
                <a href={this.props.permalink target="_blank">
                    <h1>
                        {this.props.title}
                    </h1>
                </a>
                <aside className="byline">
                    {this.props.author}
                </aside>
            </header>
        )
    }
}
```

02
WHY REACT?

```
ERROR in ./src/components/content/PostHeader/PostHeader.jsx
Module build failed: SyntaxError: /Users/joshbroton/dev/git/vidscrip/site/src/components/content/PostHeader/PostHeader.js
x: Unexpected token (13:46)
  11 |         return (
  12 |             <header className="post__header">
> 13 |                 <a href={this.props.permalink target="_blank">
     |                                               ^
  14 |                     <h1>
  15 |                         {this.props.title}
  16 |                     </h1>
```

02
WHY REACT?


▶./src/components/content/PostHeader/PostHeader.jsx client:47
Module build failed: SyntaxError:
/Users/joshbroton/dev/git/vidscrip/site/src/components/content/PostHeade
r/PostHeader.jsx: Unexpected token (13:46)
11 | return (
12 | <header className="post__header">
> 13 | <a href={this.props.permalink target="_blank">
| ^
14 | <h1>
15 | {this.props.title}
16 | </h1>
at Parser.pp.raise

02

WHY REACT?

02

WHY REACT?

02

WHY REACT?

JSX IS OUTSTANDING

REACT SYNTAX IS SIMPLE

REACT FAILS FAST AT COMPILE TIME

THE DEVELOPER TOOLS ARE INCREDIBLE

REACT DEVELOPER EXPERIENCE

Hot reloading, Chrome React Extension, JSX compile-time checks, verbose error messages

02

WHY REACT?

JSX IS OUTSTANDING

REACT SYNTAX IS SIMPLE

REACT FAILS FAST AT COMPILE TIME

THE DEVELOPER TOOLS ARE INCREDIBLE

SPEED. GLORIOUS, GLORIOUS SPEED

HOW FAST IS REACT?

HOW FAST IS REACT?

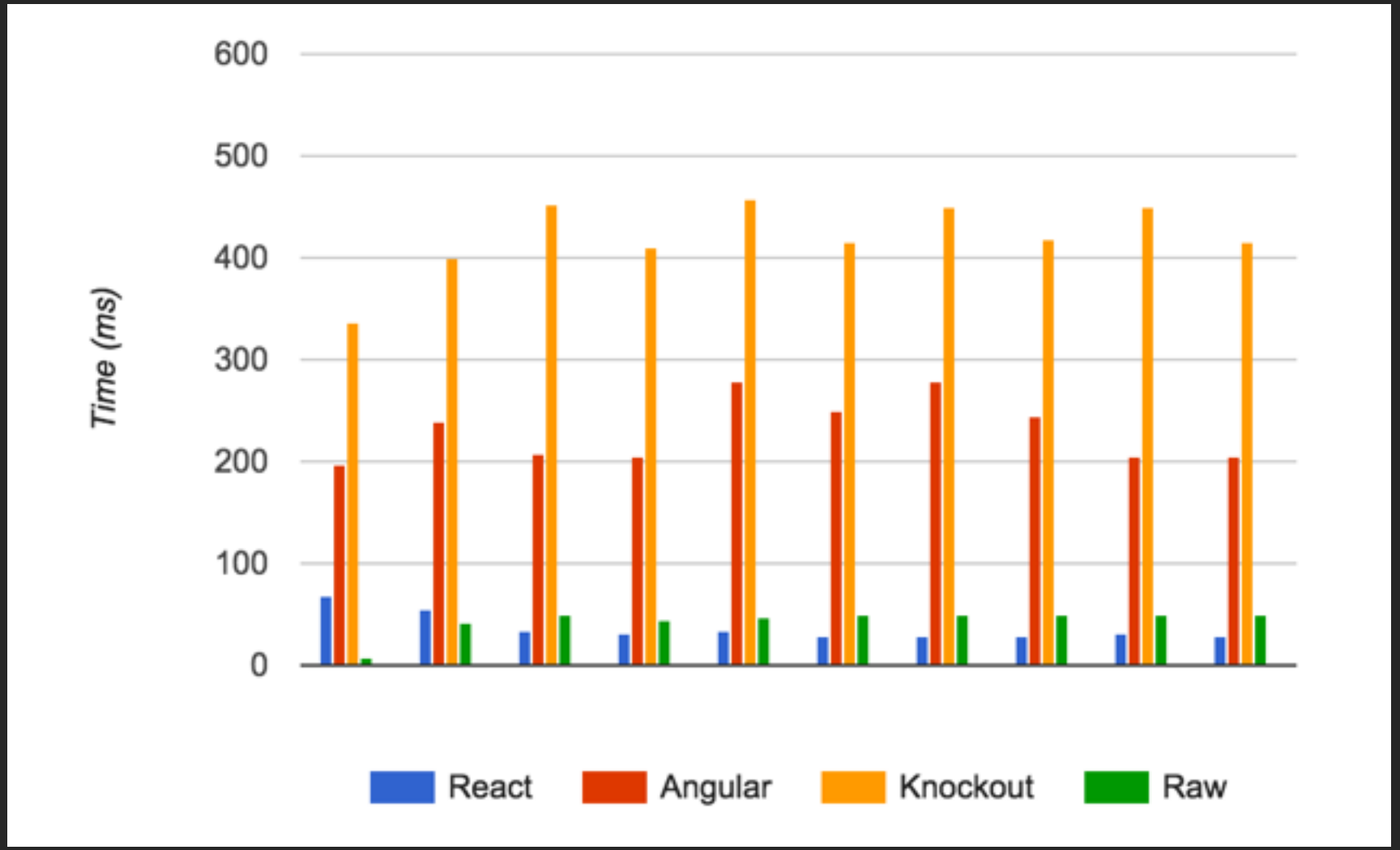
10x faster than Angular

18x faster than Knockout

3x faster than DOM manipulation with jQuery

https://www.codementor.io/reactjs/tutorial/reactjs-vs-angular-js-performance-comparison-knockout

HOW FAST IS REACT?



https://www.codementor.io/reactjs/tutorial/reactjs-vs-angular-js-performance-comparison-knockout

HOW FAST IS REACT?

LIBRARY/FRAMEWORK SIZE:

Angular 2: 566k (766k with RxJS)

Ember: 435k

Angular 1: 143k

React + Redux: 139k

https://medium.freecodecamp.com/angular-2-versus-react-there-will-be-blood-66595faafd51#.omn6sfitq

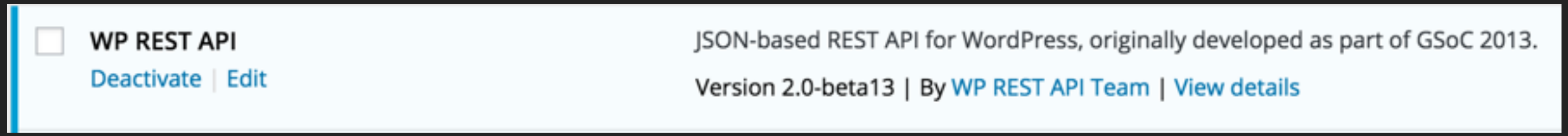
03
REACT + WORDPRESS

03

REACT + WORDPRESS

THE WP REST API:
THE FUTURE OF WORDPRESS AND THE WEB

03
REACT + WORDPRESS



```
[
  - {
      id: 1628,
      date: "2016-04-01T02:32:21",
      date_gmt: "2016-04-01T02:32:21",
    - guid: {
        rendered: "http://joshbroton.com/?p=1628"
      },
      modified: "2016-04-01T02:51:13",
      modified_gmt: "2016-04-01T02:51:13",
      slug: "so-you-want-to-change-the-gravity-forms-form-tag",
      type: "post",
      link: "http://joshbroton.com/so-you-want-to-change-the-gravity-forms-form-tag/",
    - title: {
        rendered: "So You Want to Change the Gravity Forms Form Tag&#8230;"
      },
    - content: {
        rendered: "<p>I had an interesting request from a client today. They use <a href="http://www.pardot.com/" onclick="__gaTracker('send', 'event',
        'outbound-article', 'http://www.pardot.com/', 'Pardot');" target="_blank">Pardot</a> to integrate with the forms on their old website, and wanted to do
        the same with their new WordPress theme. We&#8217;re using the always spectacular <a href="http://www.gravityforms.com/" onclick="__gaTracker('send',
        'event', 'outbound-article', 'http://www.gravityforms.com/', 'Gravity Forms');">Gravity Forms</a> for the forms on the site. </p> <p>I did the
        integrations, and we got an error.</p> <pre> The form enc type appears to be incompatible with our pardot form handler according to this article: Wrong
        Enctype Pardot form handlers can only be integrated with forms using an empty enctype attribute or an enctype of application/x-www-form-urlencoded.
        Pardot doesn't accept an enctype of multipart/form-data. </pre> <p>I didn&#8217;t realize (but now it makes perfect sense) that Gravity Forms defaults
        to enctype=&#8221;multipart/form-data&#8221;. I scoured the Gravity Forms settings, looking for a way to switch that to the correct enctype without any
        luck. I hit up a good friend of mine, <a href="https://twitter.com/projectgoboy" onclick="__gaTracker('send', 'event', 'outbound-article',
        'https://twitter.com/projectgoboy', 'Rob Harrell');" target="_blank">Rob Harrell</a>, on Twitter, asking if there was a way to edit the form.
        Thankfully, there is. He sent me <a href="https://www.gravityhelp.com/documentation/article/gform_form_tag/" onclick="__gaTracker('send', 'event',
        'outbound-article', 'https://www.gravityhelp.com/documentation/article/gform_form_tag/', 'this page about a filter a developer can use the edit the form
        tag output by Gravity Forms');" target="_blank">this page about a filter a developer can use the edit the form tag output by Gravity Forms</a>.</p> <p>I
        added this code to the functions.php file to change the enctype of the form:</p> <pre> add_filter( 'gform_form_tag', 'form_tag', 10, 2 ); function
        form_tag( $form_tag, $form ) { if ( $form['id'] != 1 ) { //not the form whose tag you want to change, return the unchanged tag return $form_tag; }
        $form_tag = preg_replace( "|enctype='(.*?)'|", "enctype='application/x-www-form-urlencoded'", $form_tag ); return $form_tag; } </pre> <p>Breaking down
        that code:</p> <pre> //Enter the ID of the form you want to alter here: if ( $form['id'] != 1 ) { //Alter the <form> tag however you like here:
        $form_tag = preg_replace( "|enctype='(.*?)'|", "enctype='application/x-www-form-urlencoded'", $form_tag ); //This can be just about any replacement you
        want, or you can just return a new string that is the new form tag return '<form class="gravity-form-or-some-other-class" action="post.php"
        enctype="application/x-www-form-urlencoded"> </pre> <p>Pardot is picky about the form they integrate with, and thankfully the Gravity Forms developers
        made it possible to alter the &lt;form&gt; tag however we need to.</p> "
      },
    - excerpt: {
        rendered: "<p>I had an interesting request from a client today. They use Pardot to integrate with the forms on their old website, and wanted to do the
        same with their new WordPress theme. We&#8217;re using the always spectacular Gravity Forms for &hellip; <a href="http://joshbroton.com/so-you-want-to-
        change-the-gravity-forms-form-tag/">Continued</a></p> "
      },
```

03

REACT + WORDPRESS

```
<article id="post-<?php the_ID(); ?>" <?php post_class('post'); ?>
         role="article" itemscope itemtype="http://schema.org/BlogPosting">
    <header class="content__header post__header">
        <h1 class="content__title post__title"
            title="<?php the_title_attribute(); ?>" itemprop="headline">
            <?php the_title(); ?>
        </h1>
        <aside class="byline vcard">
            <time class="byline__date updated" datetime="<?php echo
the_time('Y-m-j'); ?>" pubdate>
                <?php the_time(get_option('date_format')); ?>
            </time>
            by
            <span class="byline__author"><?php the_author_posts_link(); ?></
span>
        </aside>
    </header>
```

03
REACT + WORDPRESS

```
class PostView extends Component {
    componentWillMount() {
        document.body.classList.add('post-list','blog');
    }
    componentWillUnmount() {
        document.body.classList.remove('post-list','blog');
    }
    render() {
        return (
            //Your JSX goes here
        )
    }
}
```

03

REACT + WORDPRESS

```
<article id={'post-' + post.id} className="post"
         role="article" itemscope itemtype="http://schema.org/BlogPosting">
   <header class="content__header post__header">
      <h1 class="content__title post__title" itemprop="headline">
         {post.title}
      </h1>
      <aside class="byline vcard">
         <time class="byline__date updated">
            {moment(post.date).format()}
         </time>
         by <span class="byline__author">{post.author}</span>
      </aside>
   </header>
   <section class="post__content" itemprop="articleBody">
      <PostThumbnail post={post} />
      <div class="content--inner post__content--inner">(); ?>
         {post.excerpt? post.excerpt : post.content}
```

03
REACT + WORDPRESS

```
<article id={'post-' + post.id} className="post"
         role="article" itemscope itemtype="http://schema.org/BlogPosting">
   <PostHeaderView title={post.title}
                   date={post.date}
                   author={post.author} />
   <PostContentView thumbnail={post.thumbnail}
                    content={post.content} />
   <PostFooterView categories={post.categories}
                   tags={post.tags} />
</article>
```

03
REACT + WORDPRESS

```
<PostView post={post} />
```

```
<section className="posts--list">
   { posts.map((post) => { return <PostView post={post} /> })}
</section>
```

03
HEADLESS WORDPRESS

1. index.php file
2. change
   `define('WP_USE_THEMES', true);`
   to
   `define('WP_USE_THEMES', false);`
3. You're done!

03
HEADLESS WORDPRESS

1. front-page.php file
2. ©2016 api.joshbroton.com
3. You're done!

MORE RESOURCES

- https://facebook.github.io/react/docs/getting-started.html
- https://frontendmasters.com/courses/
- http://tri.be/blog/redux-react-and-the-wordpress-rest-api-v2/
- https://camjackson.net/post/9-things-every-reactjs-beginner-should-know
- https://github.com/reactjs/react-a11y

JOSH BROTON

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