

React in a nutshell



- Brief history of Front-end development
- Web Component and Rise of React
- Thinking in React
 - What is React ?
 - How about no MVC ?
- Basic React component
- ES6 Class vs createClass
- Overview Flux architecture
- This is just the beginning (Ecosystem overview)





ES6

Javascript

ES2015 / ES6

SUPPERGOOD

to with Java

- Really, a lot of things
- Classical inheritance
- Async / Await

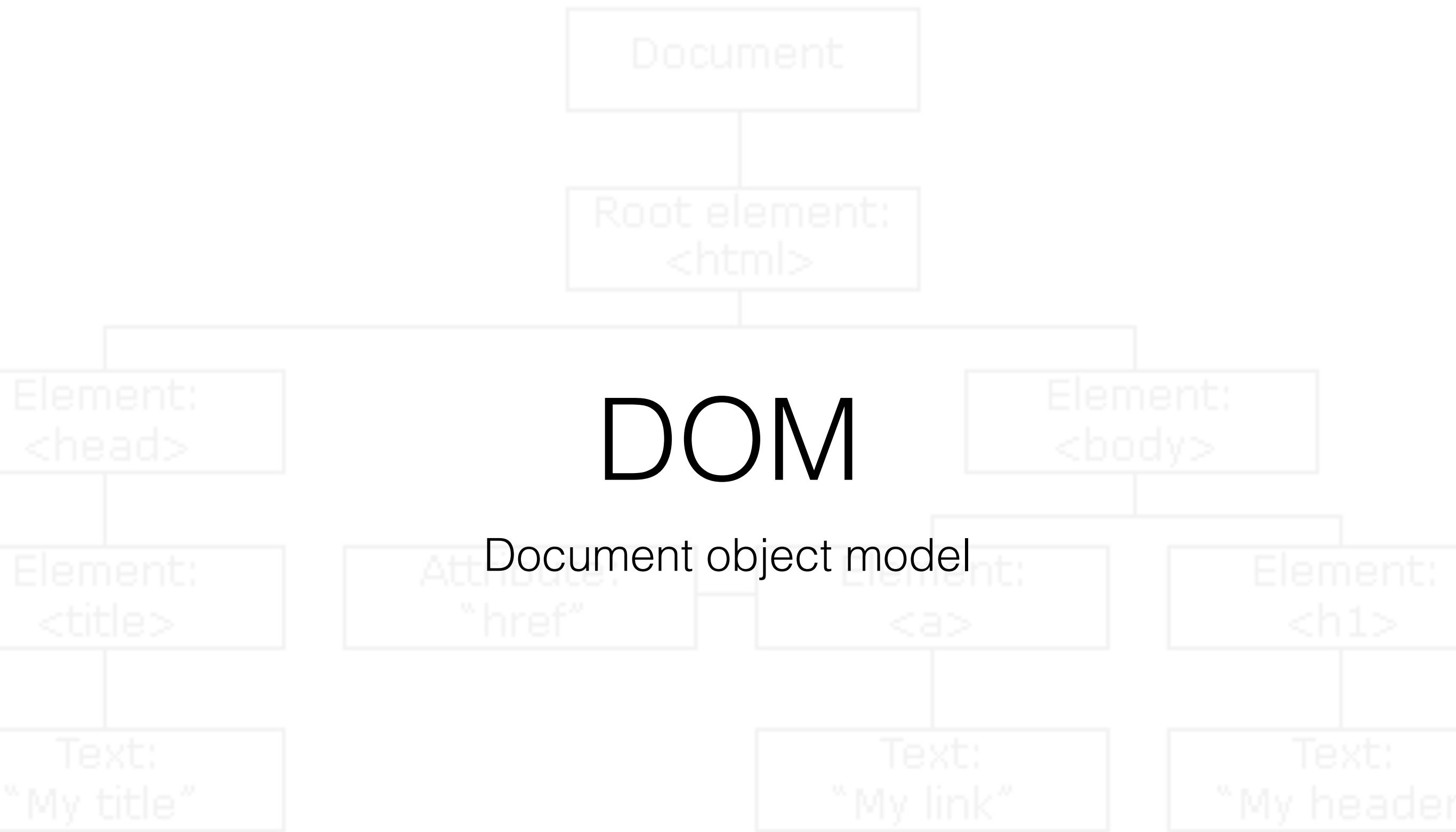
```
1
2
3 function delay(ms: number) {
4   return new Promise((resolve, reject) => {
5     // ...
6   });
7 }
8
9
10
11
```

```
1
2
3 function delay(ms: number) {
4   return new Promise((resolve, reject) => {
5     setTimeout(resolve, ms);
6   });
7 }
8
9
10 const sleep = async function() {
11   await this::delay(2000);
12 }
```

```
1 "use strict";
2
3 function _asyncToGenerator(fn) { return function () {
4
5   function delay(ms) {
6     return new Promise(function (resolve, reject) {
7       setTimeout(resolve, ms);
8     });
9   }
10
11   var sleep = function () {
12     var _ref = _asyncToGenerator(regeneratorRuntime.
13     return regeneratorRuntime.wrap(function _callee
14       while (1) {
15         switch (_context.prev = _context.next) {
16           case 0:
17             _context.next = 2;
18             return delay.call(this, 2000);
19
20           case 2:
21             "end":
22             context.stop();
23           }
24         }
25       }
26     }
27   }
28 }
```

```
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2
3 function delay(ms: number) {
4   return new Promise((resolve, reject) => {
5     // ...
6   });
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21           "end":
22           context.stop();
23         }
24       }
25     }
26   }
27 }
```

BABEL



DOM

Document object model

Classic web communication

`<form action="action_page.php">`

Likely asynchronous

Asynchronous javascript

```
axios.post('action_page.php')
```

```
$http({  
  method: 'POST',  
  url: '/action_page.php'  
})
```



```
$.ajax({  
  url: 'action_page.php',  
  method: 'POST'  
});
```



```
fetch('action_page.php', {  
  method: 'POST'  
});
```



WHATWG standard !

Web component

Web Components are a collection of standards which are working their way through the W3C and landing in browsers as we speak. In a nutshell, they allow us to bundle markup and styles into custom HTML elements. What's really amazing about these new elements is that they fully encapsulate all of their HTML and CSS. That means the styles that you write always render as you intended, and your HTML is safe from the prying eyes of external JavaScript.

What is web component

Web component

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always render as you intended, **and your HTML is safe from the prying eyes of external JavaScript.**

<https://css-tricks.com/modular-future-web-components/>

WE WANT OUR WEB TO BE MORE MODULAR

Chunk everything



Framework ? Library ?

like
Calculus and Limit
Newtonian physic

Fun fact !

React is just a library

📄 7,382 commits


🌿 30 branches

📦 52 releases

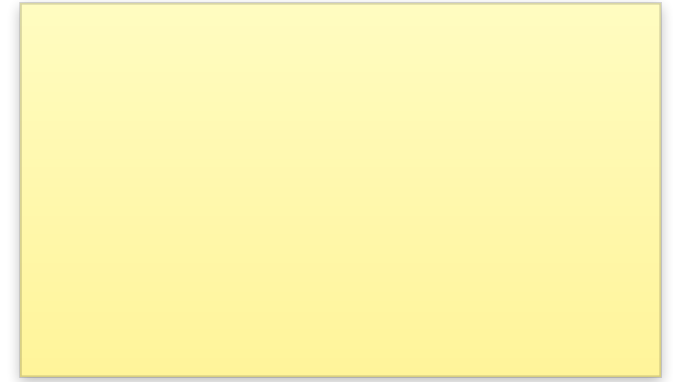
👤 830 contributors

📄 BSD-3-Clause

We've found 127,981 repository results

- Instagram
- Facebook
- Storylog
- TakeMeTour
- Taskworld
- Airbnb
- Startup love React 

- Be a web programmer
- Javascript
- HTML
- CSS
- OOP (both Class, Prototype base)



“Life with out DOM selector”

Javascript Framework today

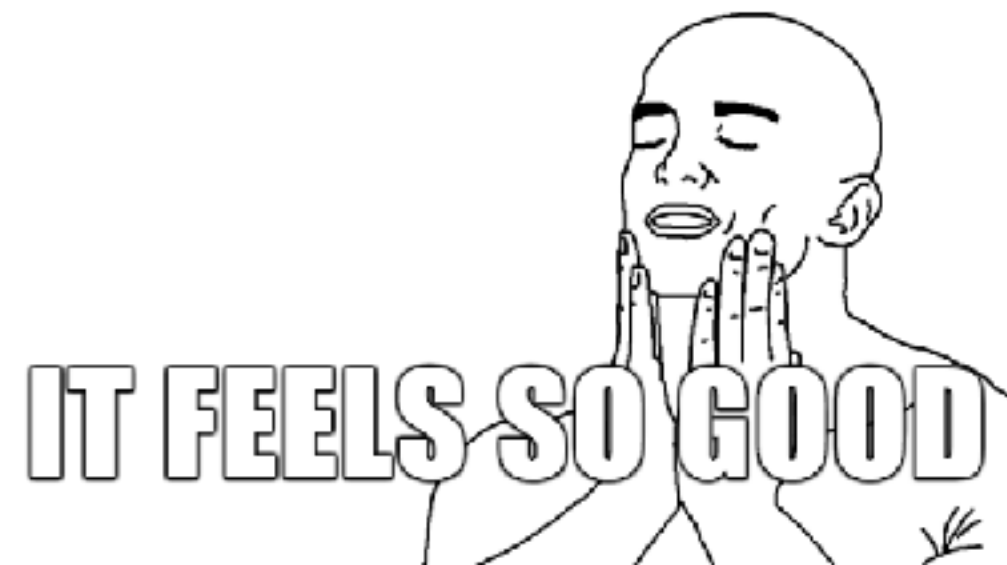
Agility.js • AngularJS • Aria Templates • Backbone.js
Batman.js • Bolt • CanJS • Chaplin + Brunch • Closure
cujo.js • Dart • Derby • Dijon • Dojo • DUEL
Ember.js • Epitome • Funnyface.js • GWT
Kendo UI • Knockback.js • KnockoutJS • Maria
Marionette • Meteor • Montage • Olives • PlastronJS
PureMVC • rAppid.js • Sammy.js • Serenade.js
SocketStream • soma.js • Spine • Stapes • Thorax • YUI

All framework share the same principle
MVC MVVM MVM

MVC MVVM MVW

Models

Observable model



Because mutate all the data over time in component is painful

“MVC is obsoleted for UI”

Predictable

Action

dispatcher

Store

state changed

View



```
1
2 ▼ const MyComponent = React.Component({
3   getInitialState() {
4
5   },
6   getDefaultProps() {
7
8   },
9 ▼ render() {
10   /** Render view with current state here */
11   return
12
13
14
15 }
16 })
```

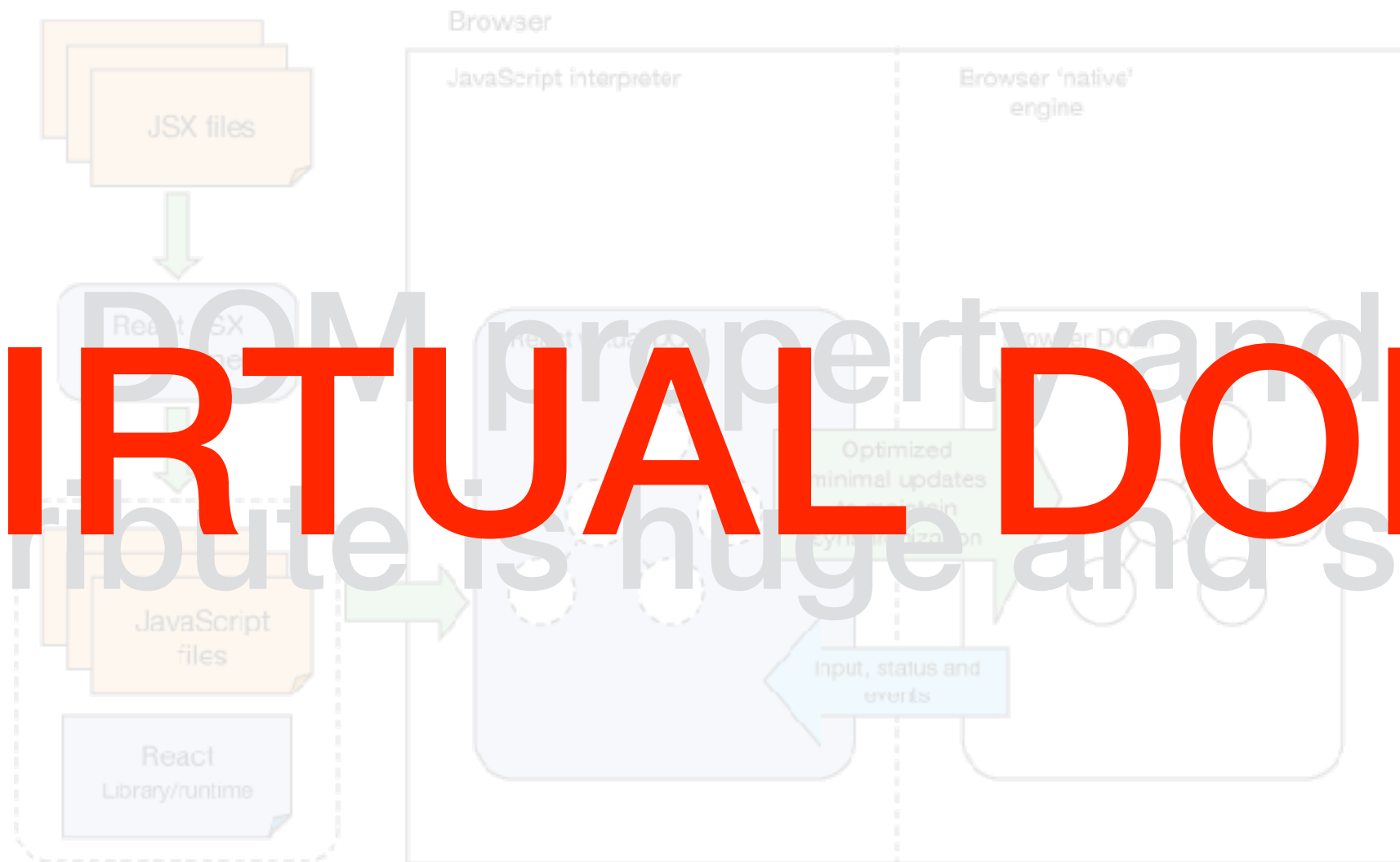
```
render(<MyComponent />, document.getElementById('renderPoint'))
```

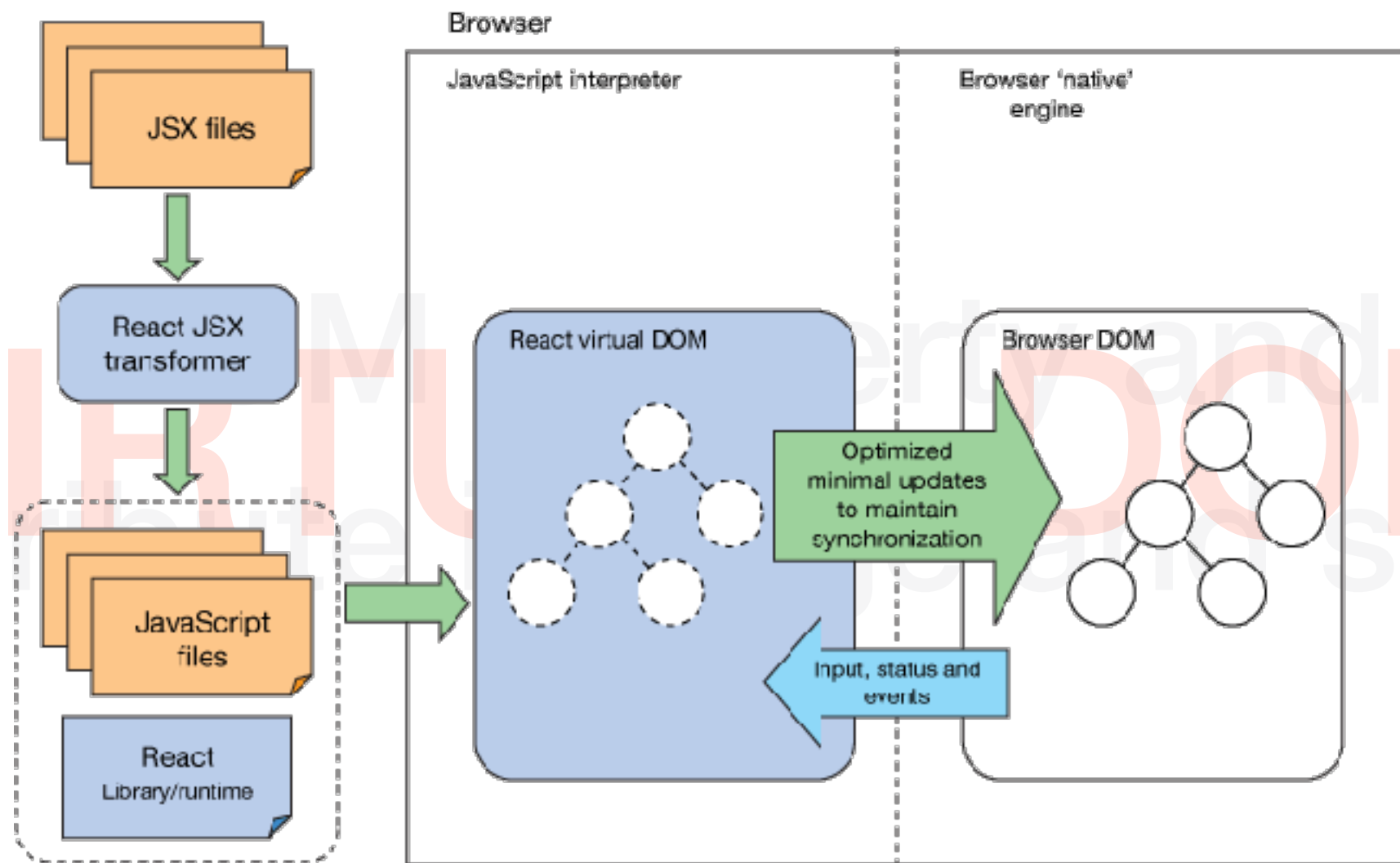
Must be something here

```
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5   },
6   getDefaultProps() {
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8   },
9 ▼ render() {
10   /** Render view with current state here */
11   return DOM.createElement('div', this.state);
12
13
14
15 }
16 })
```


**DOM property and
attribute is huge and slow**

VIRTUAL DOM





```
1
2 ▼ const MyComponent = React.Component({
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16 })
```

```
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2 ▼ const MyComponent = React.Component({
3   getInitialState() {
4
5   },
6   getDefaultProps() {
7
8   },
9 ▼   render() {
10     /** Render view with current state here */
11
12     return <div msg={this.state.msg}/>
13
14   }
15 }
16 )
```

What is React ?

Component library based on State instead of Model
and no binding require

Experiment time

<https://github.com/zapkub/react-in-a-nutshell/>

Singleton state ?

Every Framework or
Library is good

