



Code 301: jQuery and the DOM

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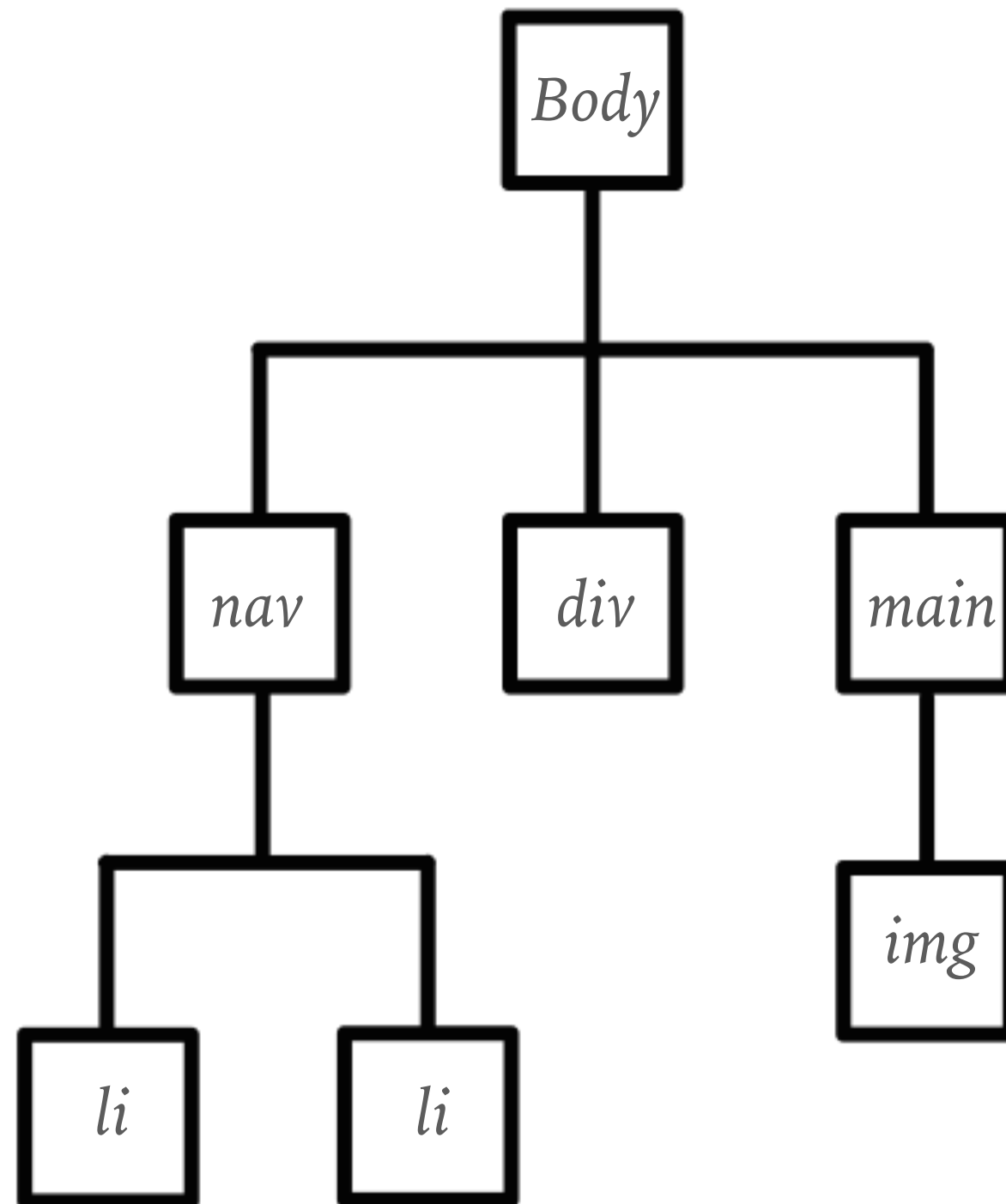
AGENDA

- Understanding the DOM
- jQuery Basics
- Code Demo & Assignment Prep

THE DOM



NOPE.



YUP.

THE DOM

- What is the DOM?
 - Document Object Model
 - What the browser does with HTML
 - Internal representation of a web page

“

The DOM states what your script can ask the browser about the current page, and how to tell the browser to update what is being shown to the user.

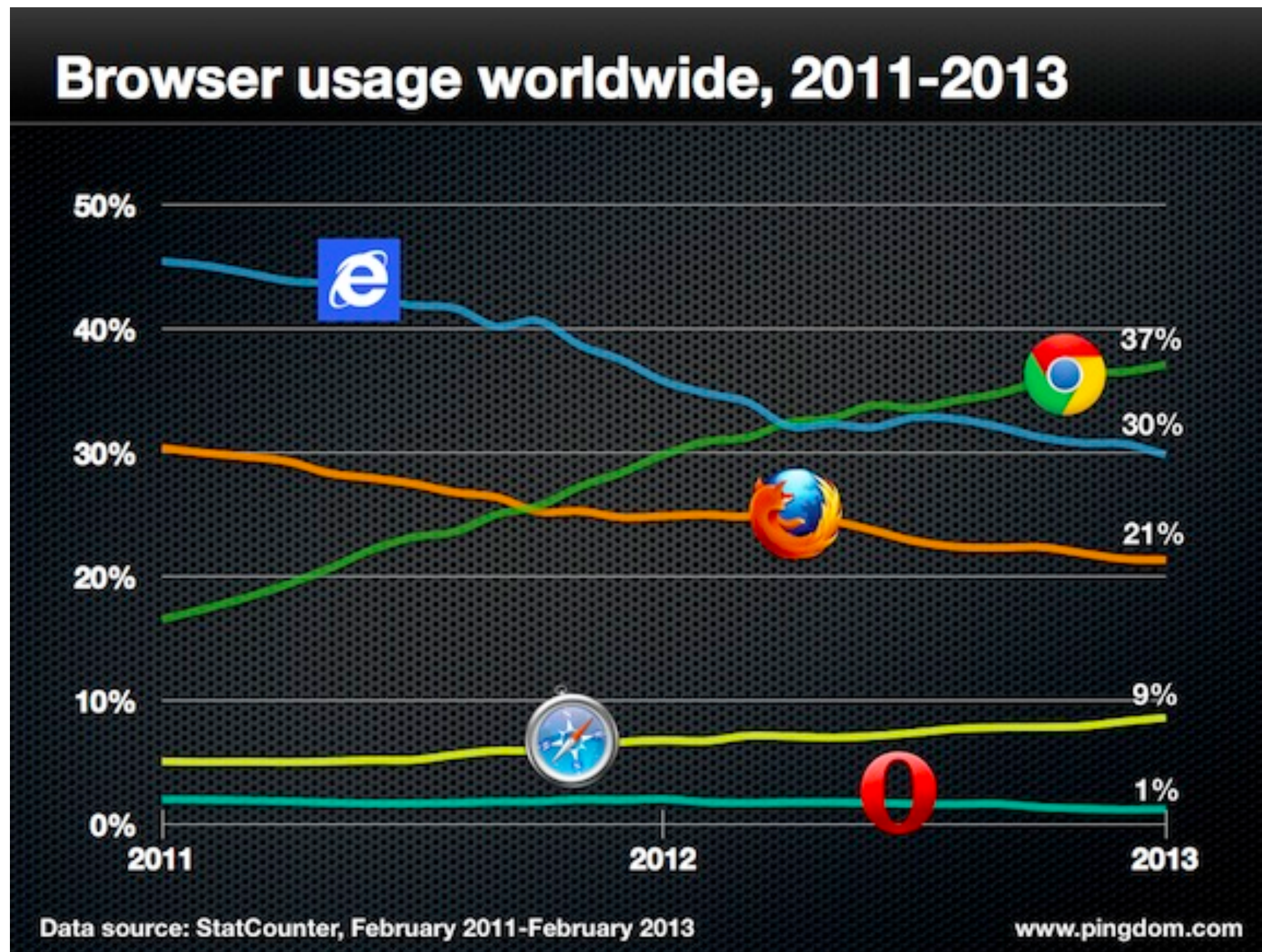
-Jon Duckett

THE DOM

- What can you do with the DOM?
 - Find elements:
 - `var el = document.getElementById('articles');`
 - `var els = document.getElementsByTagName('li');`
 - `var els = document.querySelectorAll('#articles > li');`
 - Change elements:
 - `document.getElementById('articles').innerHTML = '<h1>News</h1>';`
 - `document.getElementById('articles').textContent = 'News';`
 - `document.getElementById('articles').innerText = 'News1';`
 - Also:
 - Add and remove elements
 - Read attributes and values
 - Navigate the tree... Manage user interactions, events, etc...

JQUERY

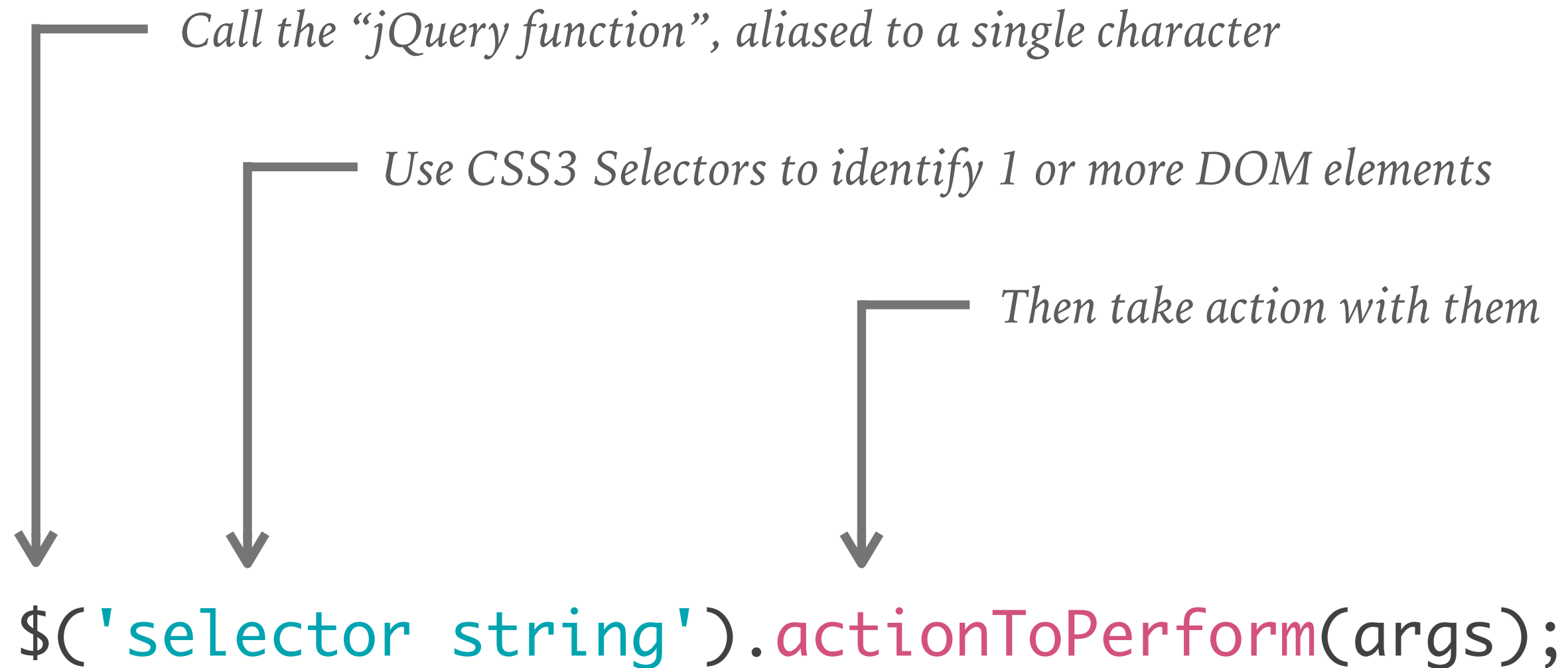
BROWSER WARS



JQUERY

- What is it, exactly?
 - A JavaScript library (6,358 LOC)
 - That provides an API for:
 - DOM selection
 - DOM manipulation
 - DOM traversal
 - Event management
 - AJAX
 - ...and more

JQUERY SYNTAX



VANILLA JAVASCRIPT: FADE IN

```
1 function fadeIn(el) {  
2   el.style.opacity = 0;  
3  
4   var last = +new Date();  
5   var tick = function() {  
6     el.style.opacity = +el.style.opacity + (new Date() - last) / 400;  
7     last = +new Date();  
8  
9     if (+el.style.opacity < 1) {  
10      (window.requestAnimationFrame && requestAnimationFrame(tick)) ||  
11        setTimeout(tick, 16)  
12    }  
13  };  
14  tick();  
15 }  
16  
17 fadeIn(el);
```

JQUERY: FADE IN

```
1 $(el).fadeIn();
```

http://youmightnotneedjquery.com/#fade_in

VANILLA JAVASCRIPT: FILTER

```
1 Array.prototype.filter.call(document.querySelectorAll(selector), filterFn);
```

JQUERY: FILTER

```
1 $(selector).filter(filterFn);
```

http://youmightnotneedjquery.com/#fade_in

VANILLA JAVASCRIPT: MATCHES SELECTOR?

```
1 var matches = function(el, selector) {  
2   return (el.matches  
      || el.matchesSelector  
      || el.msMatchesSelector  
      || el.mozMatchesSelector  
      || el.webkitMatchesSelector  
      || el.oMatchesSelector).call(el, selector);  
3 };  
4  
5 matches(el, '.my-class');
```

JQUERY: MATCHES SELECTOR?

```
1 $(el).is('.my-class');
```

http://youmightnotneedjquery.com/#matches_selector

VANILLA JAVASCRIPT: TOGGLE A CLASS

```
1 if (el.classList) {  
2   el.classList.toggle(className);  
3 } else {  
4   var classes = el.className.split(' ');  
5   var existingIndex = classes.indexOf(className);  
6  
7   if (existingIndex >= 0)  
8     classes.splice(existingIndex, 1);  
9   else  
10    classes.push(className);  
11  
12   el.className = classes.join(' ');  
13 }
```

JQUERY: TOGGLE A CLASS

```
1 $(el).toggleClass(className);
```

http://youmightnotneedjquery.com/#toggle_class

VANILLA JAVASCRIPT: GET JSON FROM A SERVER

```
1 var request = new XMLHttpRequest();
2 request.open('GET', '/my/url', true);
4 request.onload = function() {
5     if (request.status >= 200 && request.status < 400) {
6         // Success!
7         var data = JSON.parse(request.responseText);
8     } else {
9         // Server returned an error
10    }
11 };
12 request.onerror = function() {
13     // There was a connection error
14 };
15 request.send();
```

JQUERY: GET JSON FROM A SERVER

```
1 $.getJSON('/my/url', function(data) {
2     // Do something with the data
3 });
```

<http://youmightnotneedjquery.com/#json>

JQUERY CHEAT SHEET

<http://oscarotero.com/jquery/>

JQUERY IN ACTION

JQUERY

- From jquery.com:
- jQuery is a fast, small, and feature-rich JavaScript library.
- It makes things like HTML document traversal and manipulation, event handling, animation, and Ajax much simpler with an easy-to-use API that works across a multitude of browsers.

jQuery is a fast, small, and feature-rich JavaScript library.



It makes things like HTML document traversal and manipulation, event handling, animation, and Ajax much simpler with an easy-to-use API that works across a multitude of browsers.

With a combination of versatility and extensibility, jQuery has changed the way that millions of people write JavaScript.

-jquery.com

RECAP

RECAP

- You need work closely with the DOM
- Your app is logic to dictate what the DOM looks like, and what it does
- jQuery will boost your DOM skills
- ...which makes your apps more maintainable, and more fun to write.

RESOURCES AND ATTRIBUTIONS

- <https://blingee.com/blingee/view/113822655-Dom-Fast-Furious->
- https://en.wikipedia.org/wiki/Browser_wars