

# INTRO TO JQUERY



JAVASCRIPT MADE MORE ACCESSIBLE

Created by [Brian Duffey](#)

# WHO AM I?

- Brian Duffey
- 3 years consultant at michaels, ross, and cole



- 4+ years jQuery developer
- What have I used jQuery for?

# WHERE ARE WE GOING?

- Introduction
  1. Who am I?
  2. Where are we going?
  3. What is jQuery?
  4. Why was it created?
  5. Why would you use it?
- Adding jQuery to Your Pages
  1. Should you host or include?
  2. How do you bring the library into your pages?
  3. How can you write your own scripts?
- Using jQuery on Your Pages
  1. What are selectors?
  2. What do you do with selected elements?
  3. Where do you go from here?

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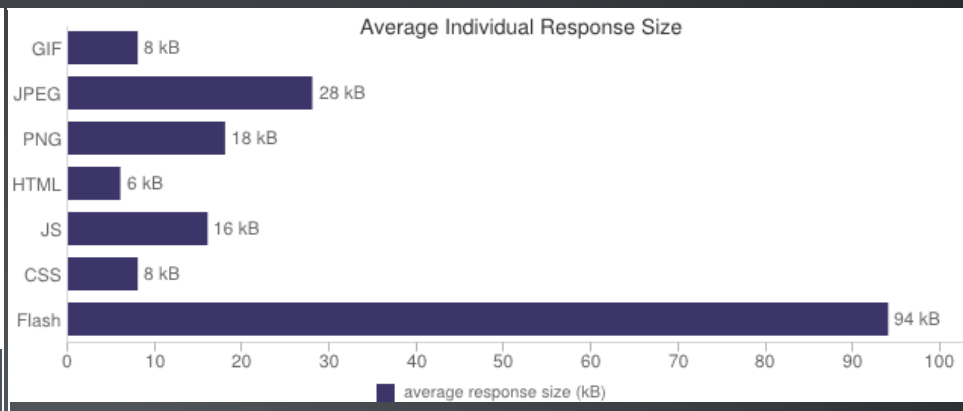
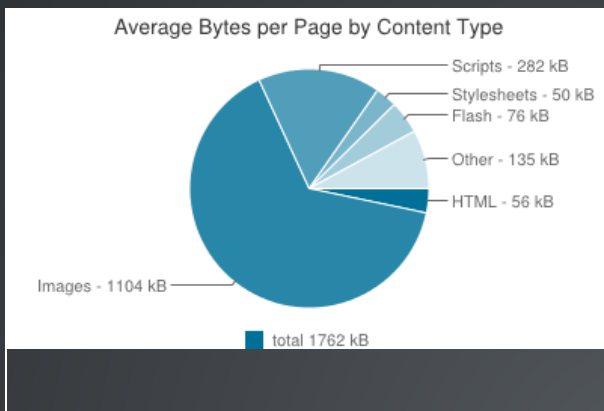
# WHAT IS **jQuery**

*write less, do more.*

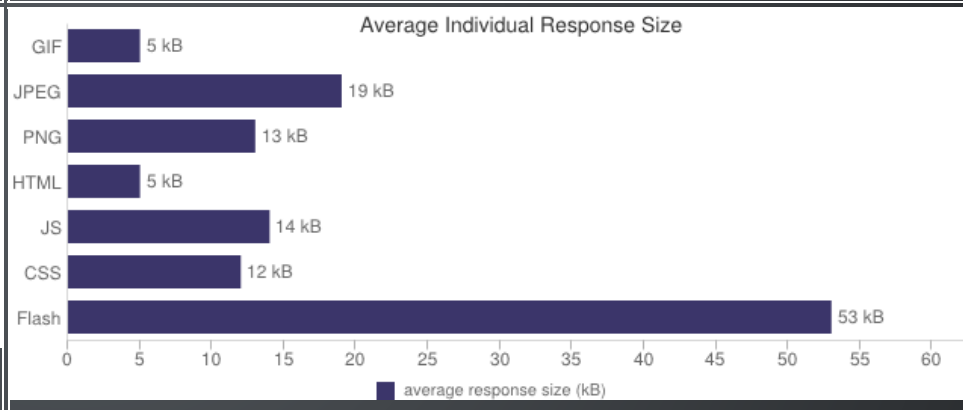
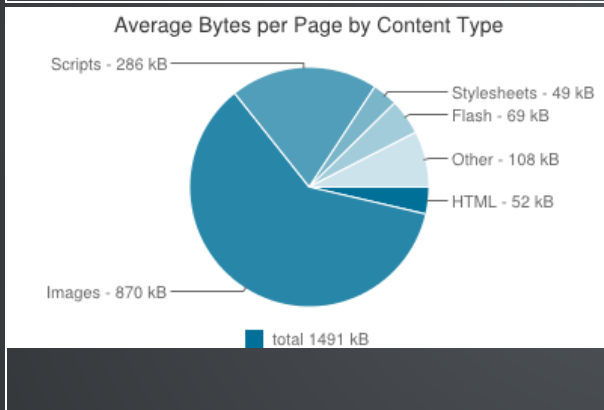
- Free, open source library
- Written over JavaScript
- Created by John Resig
- Initially released in 2006

# WHY WAS IT CREATED?

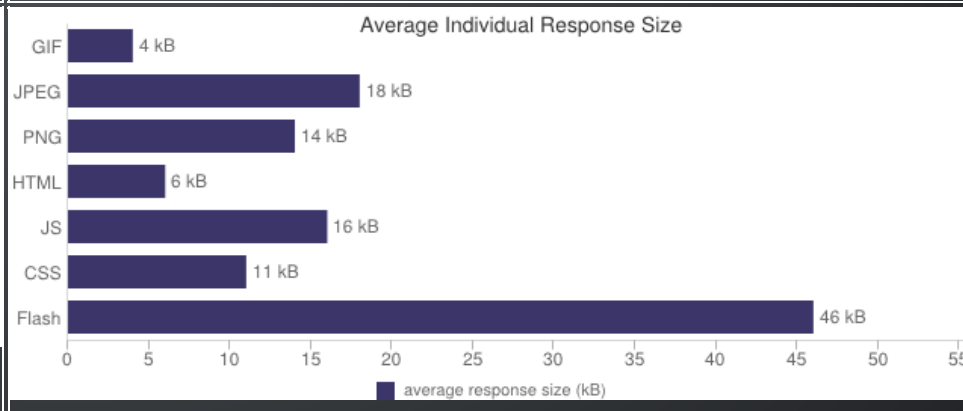
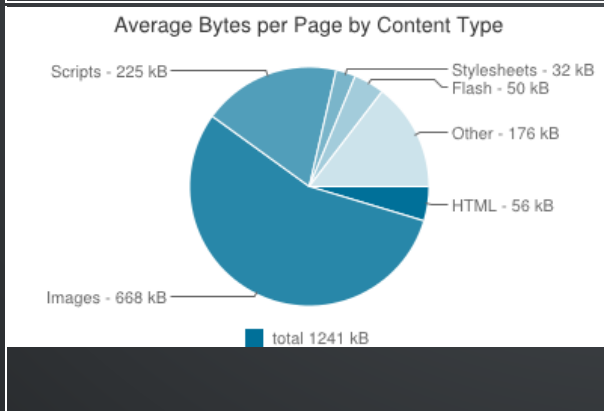
All Sites



Top 1000



Top 100



# WHY WAS IT CREATED?

## JAVASCRIPT

- Very useful in modern web development
- Can be hard to learn
- Long scripts for simple functions cause readability issues

## JQUERY

- Simplifies existing JavaScript functions
- Easy to learn as it uses existing CSS selectors
- Simpler to read and understand as less code is required

# WHY WAS IT CREATED?

## JavaScript Demo

```
window.onload = function () {
  var myName, greeting, elems;
  myName = prompt('What is your name?');
  greeting = document.getElementById('myName');
  str = 'Hello, ' + myName;
  greeting.innerHTML = str;
  elems = document.getElementsByTagName('input');
  for (var elem in elems) {
    if (elems[elem].type === 'button') {
      elems[elem].addEventListener('click', function () {
        changeColor(this.value, 'box')
      }, false);
    }
  }
};

function changeColor(color, el) {
  var elems2 = document.getElementsByTagName('div');
  for (var i = 0, j = elems2.length; i < j; i++) {
    if ((' ' + elems2[i].className + ' ').indexOf(' ' + el + ' ') > -1) {
      elems2[i].style.background = color;
    }
  }
}
```



# WHY WAS IT CREATED?

## jQuery Demo

```
jQuery(function () {  
  jQuery('#myName').text('Hello, ' + prompt('What is your name?'));  
  jQuery('input[type="button"]').click(function () {  
    changeColor(jQuery(this).val(), 'box');  
  });  
});  
  
function changeColor(color, el) {  
  jQuery('.' + el).css('background', color);  
}
```

# WHY WOULD YOU USE JQUERY?

- jQuery was the first JS library to be fully documented
- There are numerous **plugins** available for whatever you need
- jQuery has a very small footprint in your page - 32kB
- jQuery fails gracefully when selectors not found
- jQuery has wide support for browsers
  - IE6+
  - Chrome
  - Firefox
  - Safari
  - Opera
  - Mobile - iOS/Android

**jQuery is used by 93.7%** of all the websites whose JavaScript library we know. This is 58.7% of all websites.

*-from W3Techs,*

*<http://w3techs.com/technologies/details/js-jquery/all/all>*

# WHERE ARE WE GOING?

- Introduction
  1. Who am I?
  2. Where are we going?
  3. What is jQuery?
  4. Why was it created?
  5. Why would you use it?
- **Adding jQuery to Your Pages**
  1. Should you host or include?
  2. How do you bring the library into your pages?
  3. How can you write your own scripts?
- Using jQuery on Your Pages
  1. What are selectors?
  2. What do you do with selected elements?
  3. Where do you go from here?

# SHOULD YOU HOST OR INCLUDE?

## HOSTING

...involves downloading the jQuery library to your server, and including the library from there

- Why you might:
  - More secure
  - More reliable

# SHOULD YOU HOST OR INCLUDE?

## INCLUDING

...involves linking to the jQuery library from a CDN (Content Delivery Network)

- Why you might:
  - Decreased latency
  - Increased parallelism
  - Better caching

# WHERE TO GET IT?

## HOSTING

Download latest version from [jQuery.com](http://jQuery.com)

## INCLUDING

There are many trusted CDNs

- Google
- [jQuery.com](http://jQuery.com)
- Microsoft

# HOW DO YOU INCLUDE THE LIBRARY IN YOUR PAGES?

Use script tags, just like any other JavaScript file:

```
<script src="/path/to/jquery.js"></script>
```

Or:

```
<script src="//ajax.googleapis.com/ajax/libs/jquery/1.11.0/jquery.min.js"></s
```



# WHERE TO INCLUDE JQUERY ON YOUR PAGES?

Unlike CSS, keep *all* scripts at bottom of page

Why?

- HTML Pages load from top to bottom
- Load styles as early as possible
- Delay loading of scripts until necessary

```
<!DOCTYPE HTML>
<html>
<head>
  <title>Title</title>
  <link src="styles.css">
</head>
<body>
  <p>Your content</p>
  <script src="scripts.js"></script>
</body>
</html>
```



# HOW CAN YOU INCLUDE YOUR OWN SCRIPTS?

Either include them inline...

```
<script>  
  jQuery(someElement).doSomething();  
</script>
```

...or bring them in from an external file just like jQuery

```
<script src="/path/to/myScript.js"></script>
```

# HOW CAN YOU INCLUDE YOUR OWN SCRIPTS?

If bringing in/writing scripts at the top of your page, use `jQuery(document).ready()`:

```
jQuery(document).ready(function() { /* your script in here */ });
```

This can also be shortened:

```
jQuery(function() { /* your script in here */ });
```

This allows the page to load fully before executing your script

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# WHAT ARE SELECTORS?

- Based on CSS selectors
- Used to select elements from the DOM
- Returns zero, one, or more objects that match
- Takes the form: `jQuery('div')`

# WHAT ARE SELECTORS?

`jQuery('div')`

- Calls the jQuery library
- Commonly written as \$
- Avoid conflicts with other libraries by using jQuery

# WHAT ARE SELECTORS?

`jQuery('div')`

- Selects some element
- jQuery reads string value to determine element
- Can be a literal (like 'div') or variable (like someElement)

# WHAT ARE SELECTORS?

## Single Selectors

- Element:

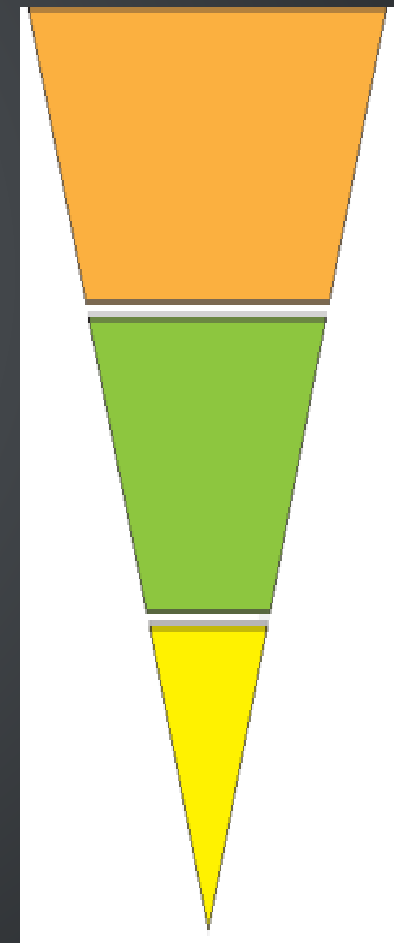
Selector	Element
div	<code>&lt;div&gt;..&lt;/div&gt;</code>
p	<code>&lt;p&gt;..&lt;/p&gt;</code>
span	<code>&lt;span&gt;..&lt;/span&gt;</code>

- Class:

Selector	Element
<code>.someClass</code>	<code>&lt;div class="someClass"&gt;..&lt;/div&gt;</code>

- ID:

Selector	Element
<code>#someID</code>	<code>&lt;div id="someID"&gt;..&lt;/div&gt;</code>



# WHAT ARE SELECTORS?

## Multiple Selectors

- Selectors can be combined to limit objects returned:

```
jQuery('div p')
```

- Use attributes to filter objects:

```
jQuery('input[name="myInput"]')
```

- Use extension selectors if needed:

```
jQuery('div:first')
```



# WHAT ARE SELECTORS?

## Traversing the DOM

- Good markup will allow you to easily select an object or objects
- Sometimes this is not possible
- Instead, you can "walk the DOM" to find the object
- This is done with various jQuery functions, such as:
  - `.parent()`
  - `.children()`
  - `.find()`
  - `.filter()`
  - `.after()`
  - `.before()`

# WHAT ARE SELECTORS?

Chaining



# WHAT ARE SELECTORS?

## Putting it all together

- Often, selectors are 80% of jQuery
- Sometimes your element will have an ID and be simple to select
- Other times you will have to walk the DOM a bit to select it
- [Here](#) is a good visual of various selectors

# OK, SO NOW WHAT?

We've selected the heck out of our elements

Now it's time to do something with them

In general, the four areas you might focus on are:

1. Modifying - changing some element
2. Manipulating - changing the page around some element
3. Listening - responding to events on some element
4. Animating - Moving or transforming some element

# MODIFYING

Involves changing the selected element(s) in some way

- `.css()`
- `.remove()`
- `.attr()`

# MODIFYING

`.css()`

- Used for getting/modifying css of selected element(s)
- Getting:

```
jQuery('div').css('color');
```

- Setting:

```
jQuery('div').css('color', 'red');
```

Demo

# MODIFYING

## .remove()

- Used for removing element(s) from the DOM

```
jQuery('.hello').remove();
```

```
jQuery('div').remove('.hello');
```

Demo

# MODIFYING

## .attr()

- Used for getting/modifying attributes of selected element(s)
- Getting:

```
jQuery('div').attr('id');
```

- Setting:

```
jQuery('div').attr('id', 'divID');
```

Demo



# MANIPULATING

Involves changing the DOM directly

- `.append()/.prepend()`
- `.clone()`
- `.load()`

# MANIPULATING

`.append()` / `.prepend()`

- Allows you to insert an element after/before each selected element(s)

```
jQuery('div').append('p');
```

```
jQuery('p').prepend('span');
```

Demo

# MANIPULATING

## .clone()

- Allows you to copy the selected element(s)

```
jQuery('div').clone();
```

```
jQuery('p').clone(true);
```

Demo

# MANIPULATING

## .load()

- Allows you to insert data from a different page into the selected element(s)

```
jQuery('div').load('/path/to/differentPage.html');
```

# LISTENING

Involves calling some code after some event on the selected element(s) happens

- `.click()`
- `.hover()`
- `.change()`

# LISTENING

## .click()

- Allows you to run something when the element(s) is clicked

```
jQuery('div').click(function() {  
    /* do something here */  
});
```

```
jQuery('p').click();
```

Demo

# LISTENING

## .hover()

- Allows you to run something when the element(s) is hovered over with the mouse

```
jQuery('div').hover(function() {  
    /* do something here */  
}, function() {  
    /* do something else here */  
});
```

Demo

# LISTENING

## .change()

- Allows you to run something when the element(s) is changed

```
jQuery('input').change(function() {  
  /* do something here */  
});
```

```
jQuery('select').change();
```

Demo



# ANIMATING

Involves moving/redrawing the element(s) on the page

- `.hide()/.show()/.toggle()`
- `.slide()`
- `.fade()`

# ANIMATING

`.hide()` / `.show()` / `.toggle()`

- Allows you to hide/show/toggle the selected element(s)

```
jQuery('div').hide();
```

```
jQuery('div').show(500);
```

```
jQuery('div').toggle('fast');
```

[Demo](#)

# ANIMATING

`.slideUp()` / `.slideDown()` / `.slideToggle()`

- Allows you to hide/show/toggle the selected element(s) with a sliding motion

```
jQuery('div').slideUp();
```

```
jQuery('div').slideDown(500);
```

```
jQuery('div').slideToggle('fast');
```

Demo

# ANIMATING

`.fadeOut()` / `.fadeIn()` / `.fadeToggle()`

- Allows you to hide/show/toggle the selected element(s) with a fading motion

```
jQuery('div').fadeOut();
```

```
jQuery('div').fadeIn(500);
```

```
jQuery('div').fadeToggle('fast');
```

Demo

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# LINKS

- My information:  
[www.mrc-productivity.com/Services/Brian\\_Duffey.html](http://www.mrc-productivity.com/Services/Brian_Duffey.html)
- Slides:  
[www.mrc-productivity.com/Duffey/slides/IntroTojQuery.html](http://www.mrc-productivity.com/Duffey/slides/IntroTojQuery.html)
- Other resources:  
[www.mrc-productivity.com/Duffey/COMMON14.html](http://www.mrc-productivity.com/Duffey/COMMON14.html)
  - Firebug
  - jsFiddle
  - jQuery.com
  - StackOverflow

# CREDITS

- <http://ejohn.org/apps/workshop/intro/#3>
- <http://jsfiddle.net/>
- <http://encosia.com/3-reasons-why-you-should-let-google-host-jquery-for-you/>
- <https://github.com/hakimel/reveal.js#installation>
- <http://davidwalsh.name/6-reasons-to-use-javascript-libraries-frameworks>
- <http://jquery.com/>
- <http://stackoverflow.com/>
- <http://httparchive.org/interesting.php>
- <http://w3techs.com/technologies/details/js-jquery/all/all>