

# jQuerybasics

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AboutMe

# Background

- ▶ Brigantine, NJ
- ▶ Atlantic City High School '08
- ▶ Junior majoring in CSIS (CS track) and Mathematics
- ▶ Code geek, tea lover, tech enthusiast

# What I work with

- ▶ Primarily work with web technologies
  - ▶ LAMP stacks
  - ▶ javascript/jQuery
  - ▶ APIs (Twitter, Flickr, Tumblr,...)
- ▶ Java, Objective-C

# Projects

- ▶ [katieboydphotography.com](http://katieboydphotography.com)
  - ▶ Photography portfolio
- ▶ [fflocks.com](http://fflocks.com)
  - ▶ Twitter image aggregator
- ▶ [tweetframe](http://tweetframe.com)
  - ▶ jQuery Twitter feed plugin

# Introduction

# What is jQuery?

- ▶ Javascript library
  - ▶ Manipulate the DOM
  - ▶ Add effects
  - ▶ Ajax
- ▶ Used by Google, Digg, WordPress, Amazon
- ▶ It's pretty awesome

# Advantages

- ▶ Incredibly simple.
- ▶ Open-source, community driven
- ▶ Cross-browser compatibility
- ▶ CSS3 selectors (even in IE6!)
- ▶ Utilities (trim strings, extend, etc.)
- ▶ Plugins



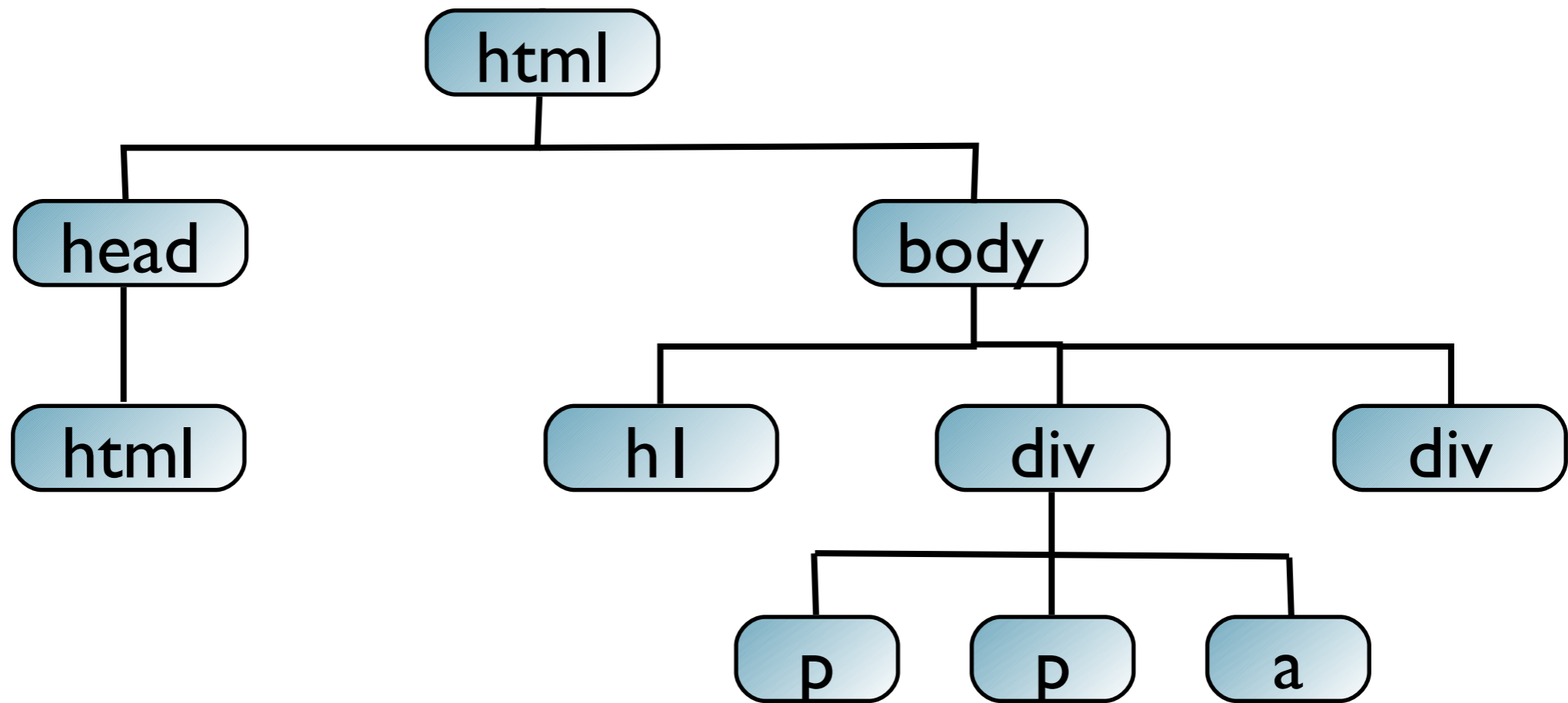
# The DOM

- ▶ Typical HTML document structure

```
1 <html>
2 <head>
3   <title>Dead Coder Society</title>
4 </head>
5 <body>
6   <h1>Welcome!</h1>
7   <div>
8     <p>This is the homepage.</p>
9     <p>Feel free to browse.</p>
10    <a href="http://www.google.com">Click here</a>
11  </div>
12  <div></div>
13 </body>
14 </html>
```

# The DOM

- ▶ Document Object Model



# Getting started with jQuery

# Including jQuery

Include jQuery like any other script:

```
1 <head>
2   <script type="text/javascript" src="https://ajax.googleapis.com/ajax/libs/jquery/1.5.1/jquery.min.js"></script>
3   <script type="text/javascript" src="script.js"></script>
4 </head>
```

- ▶ Two ways:
  - ▶ Hosted
    - ▶ CDN (Content Delivery Network)
    - ▶ Better caching
    - ▶ Decreased latency
  - ▶ Local file

# Writing your script

Before interacting with HTML elements, we need to make sure they're all loaded:

```
1 $(document).ready(function() {  
2     // You can begin executing your code  
3     alert('The document has been loaded!');  
4 })
```

This is a really common snippet of jQuery.

It prevents any weird errors or funny things happening on our webpage.

# A jQuery statement

Including jQuery gives you access to a single function called... `jQuery`!

This function acts as a gateway to the entire library, which is contained in this jQuery *namespace*.

An alias for accessing the library is `$`, the dollar sign.

# A jQuery statement

Commands are made up of a call to the jQuery function, selector(s), action(s), and parameter(s).

selector	action	parameters
<code>jQuery('p')</code>	<code>.css</code>	<code>('color', 'green');</code>
<code>\$('#p')</code>	<code>.css</code>	<code>({color: 'green'});</code>

ie. `$('#p').css('color', 'green');`

Object literal example:

```
5  $('p').css({
6    color: 'blue',
7    margin: 10,
8    padding: 5
9  });
```

# Selecting

```
14 <div id="wrapper">  
15   <a href="#" class="nextButton"></a>  
16 </div>
```

- ▶ **Selecting IDs**

- ▶ `$( '#wrapper' ).fadeIn();`

- ▶ **Selecting classes**

- ▶ `$( '.nextButton' ).hide();`

- ▶ **Narrowing selection**

- ▶ `$( '#wrapper a' ).show();`

- ▶ `$( 'a.nextButton' ).show();`

- ▶ **Multiple selections**

- ▶ `$( 'h1,h2,p,.footer' ).remove();`



jQueryAPI

# Manipulate the DOM

## ▶ Get/set attributes

- ▶ `$( 'img.profile' ).attr( 'src' );`
- ▶ `$( 'img.profile' ).attr( 'src', 'me1.jpg' );`

## ▶ Get/set content

- ▶ `$( '#about' ).html( 'This is me' );`

## ▶ Create & add DOM elements

- ▶ `$( '<p>Hello there</p>' ).appendTo( '#wrapper' );`
- ▶ `$( '<a></a>', {  
    src: http://youtube.com,  
    alt: 'Youtube Homepage'  
} ).insertBefore( '#footer' );`

# Events

```
4 // Fade out on link click
5 $( 'a.disappear' ).click( function() {
6     $( this ).fadeOut( 500 );
7 } );
8
9 // Toggles parent container height
10 $( 'a.switch' ).toggle( function() {
11     $( this )
12         .parent()
13         .css( 'height', '+=200px' );
14 }, function() {
15     $( this )
16         .parent()
17         .css( 'height', '-=200px' );
18 } );
19
20 // Records a keystroke
21 $( 'input' ).keydown( function( e ) {
22     console.log( e.which );
23 } );
```

- ▶ mouseover ( )
- ▶ mouseout ( )
- ▶ hover ( )
- ▶ scroll ( )
- ▶ resize ( )
- ▶ focus ( )
- ▶ blur ( )
- ▶ keyup ( )
- ▶ keypress ( )
- ▶ load ( )

# Animation

```
1 // Simple css properties animation
2 $('#container').animate({
3   width: '+=200px',
4   height: '+=200px',
5   backgroundColor: '#0033ff' // blue-ish
6 }, 2000);
7
8 // Easing and callback example
9 $('#box').animate({
10  top: '+=400px'
11 }, 1000, 'easeInBounce', function() {
12   // Callback function goes here
13   $('#a.temp').remove();
14 });
```

animate() parameters:

- ▶ properties
- ▶ [duration]
- ▶ [easing]
- ▶ [complete]

animate() API doc

<http://api.jquery.com/animate/>

easing plugin

# AJAX!

Plain old javascript way...

```
1 var xmlhttp;
2 // Make an XMLHttpRequest object
3 if (window.XMLHttpRequest) {
4     // code for IE7+, Firefox, Chrome, Opera, Safari
5     xmlhttp=new XMLHttpRequest();
6 } else {
7     // code for IE6, IE5
8     xmlhttp=new ActiveXObject("Microsoft.XMLHTTP");
9 }
10
11 // On request or response...
12 xmlhttp.onreadystatechange = function() {
13     // Okay 200 response
14     if(xmlhttp.readyState==4 && xmlhttp.status==200) {
15         // Do something here
16     }
17
18     // Send a GET request
19     xmlhttp.open("GET", "http://api.twitter.com/1/statuses/public_timeline.json?callback=?", true);
20     xmlhttp.send();
21 }
```

# AJAX!

jQuery magic

```
1 $.ajax({  
2   url: 'http://api.twitter.com/1/statuses/public_timeline.json?callback=?',  
3   data: data,  
4   success: successFunction(), // Success function  
5   dataType: dataType // JSON, XML, etc.  
6 });
```

# AJAX!

## Shorthand requests

`$.get()`, `$.post()`, `$.getJSON()`

```
1 $.get('test.html', function(data) {  
2     // Success function goes here  
3 });  
4  
5 var url = 'http://api.twitter.com/1/statuses/public_timeline.json?callback=?';  
6 $.getJSON(url, function(data) {  
7     // Success function goes here  
8 });
```

jQuery ajax API doc:

<http://api.jquery.com/jquery.ajax/>