jQuery Basics

Javascript

The programming language of HTML and the Web. Interaction with the user, animation, etc, all done with JavaScript.

jQuery

jQuery is a library, or set of helpful add-ons, to the JavaScript programming language.

jQuery is much better at giving you immediate, visual results than regular JavaScript.

Clicking, fading, blinking, changing color, etc... all easily done with jQuery!

How it works
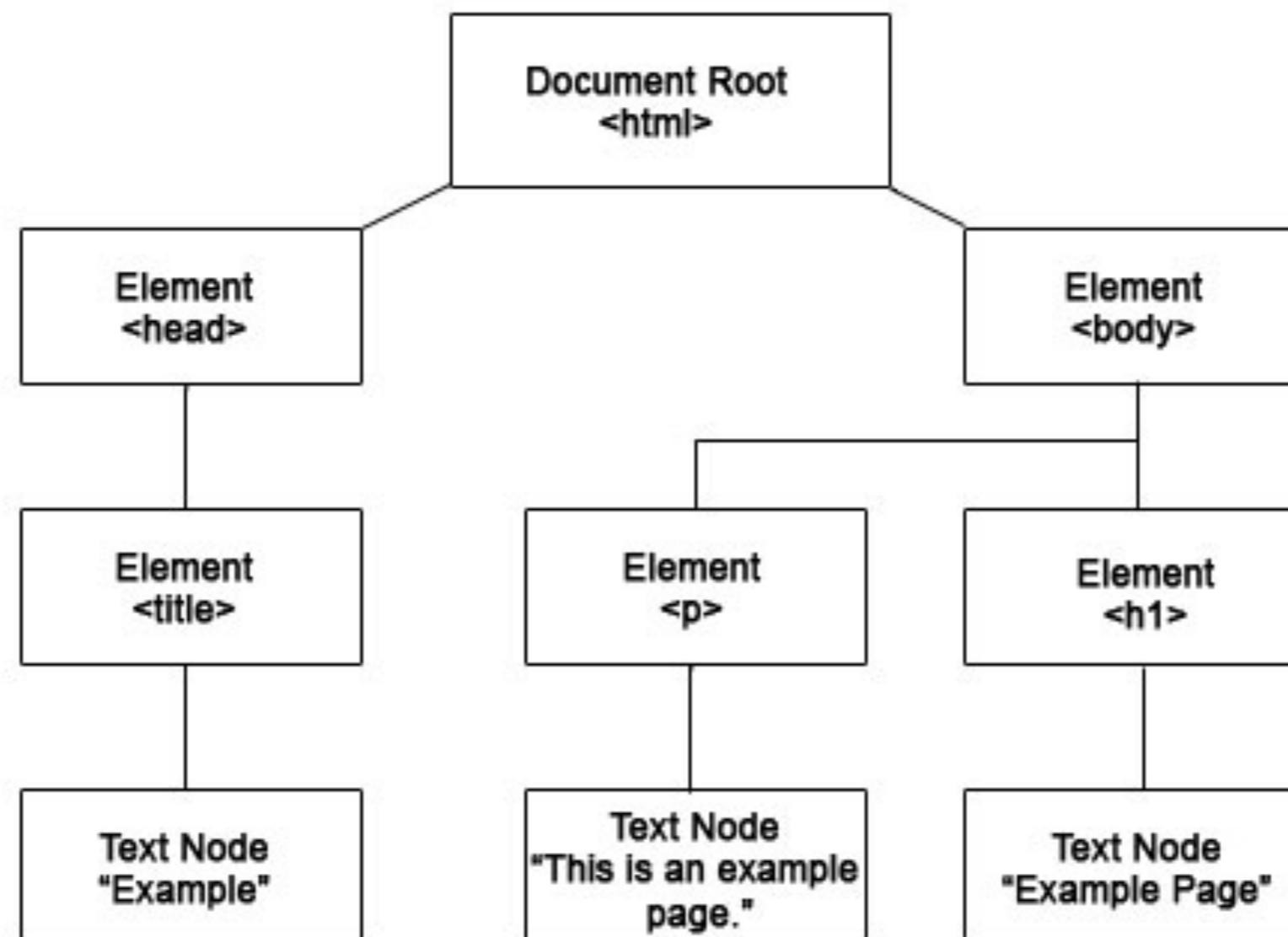
To get the most out of jQuery, we should review how an HTML page is put together.

An HTML document is structured according to the **Document Object Model**, or "**DOM**".

It's by interacting with the DOM that jQuery is able to access and modify HTML.

The DOM consists of every element on the page, laid out in a hierarchical way that reflects the way the HTML document is ordered.

The DOM

Load jQuery

Two options:

1) Use Google's hosted version
   find this by googling "jQuery Google"
   + Pros: Less steps to set up
   - Cons: If you're offline, your local version won't work
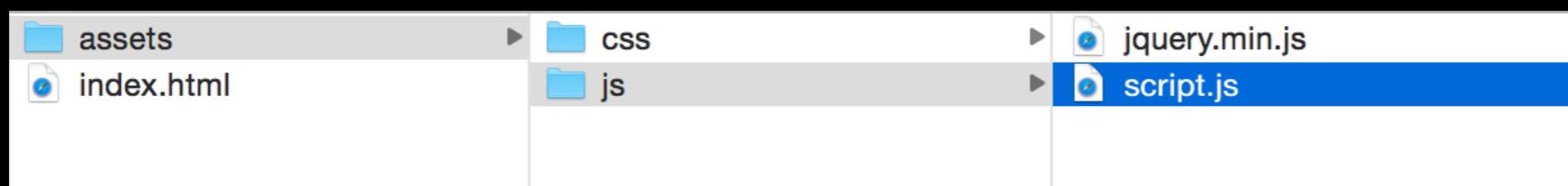
2) Download jQuery and link to your own
   + Pros: Will work if you're offline
   - Cons: More steps to set up

Load a JS file

Load jQuery
Option 1

It's best to load any JavaScript before the closing body tag.

```html
<!DOCTYPE html>
 <html>
  <head>
   <title></title>
 </head>
  <body>
    <div></div>
    <script src="https://ajax.googleapis.com/ajax/
   libs/jquery/2.2.2/jquery.min.js"></script>
    <script type="text/javascript" src="assets/js/
   script.js"></script>
   </body>
 </html>
```

https://developers.google.com/speed/libraries/#jquery

Load jQuery

Option 2

It's best to load any JavaScript before the closing body tag.

```html
<!DOCTYPE html>
 <html>
  <head>
   <title></title>
 </head>
   <body>
     <div></div>
     <script type="text/javascript" src="assets/js/
   jquery.min.js"></script>
     <script type="text/javascript" src="assets/js/
   script.js"></script>
   </body>
 </html>
```

Comments in JS

As you know, comments allow you and others keep track of what your code does. The computer ignores it.

You make a single line comment with: *//*

And a multi-line comment with: */* */*

```
// the below function does x

/*
the below code does x, y, z
*/
```

Document Ready

$() says: "Hey, jQuery things are about to happen."

Next, we'll need to start up our jQuery magic using the $(document).ready(); syntax.

It works like this:

```
$('document').ready(function(){
  // jQuery magic;
});
```

Selectors

The first thing you'll want to do is select elements from the DOM to do things with. Selecting in jQuery works just like selecting in CSS.

```
$('selector').someAction;
```

For example

```
$('h1').hide();
$('h2 .small').fadeOut();
$('p.intro').show();
```

Selectors

Class Selector:

```
$('.yellow').show;
```

ID Selector:

```
$('#letterA').fadeIn;
```

Element Selector:

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

Effects

Here are some commonly used effects:

Hide or show

```
.hide();
.show();
```

Hide or show (with fade)

```
.fadeIn('fast');
.fadeOut(1000);
```

Delay before the effect

```
.delay(value);
```

Effects — cont'd.

Hide or show
(more simple)

`.toggle();`

Hide or show
(with fade + more simple)

`.fadeToggle();`

addClass / removeClass

In addition to predefined visual effects within jQuery, you can add classes to elements in order to change their visual attributes.

```
$('#letterA').addClass('rotate');
$('#letterB').removeClass('rotate');
```

Events

You can also tie changes to events the user performs such as clicks, scrolls, etc, etc.

```
$('thingToTouch').event(function() {
    $('thingToAffect').effect();
});
```

"Thing To Touch" is the HTML element you'll click on, hover over, or otherwise interact with, and "thing to affect" is the HTML element that fades away, changes size, or undergoes some other transformation.

Events — click

Click event example:

```
$('button').click(function() {
    $('.announcement').toggle();
});
```

Events — mouse

Mouse (enter and leave) example:

```
$('.red-circle').mouseenter(function() {
    $('.blue-square').fadeOut();
});


$('.red-circle').mouseleave(function() {
    $('.blue-square').fadeIn();
});
```

http://jsfiddle.net/cvyxp15z/

Events — hover

Hover example:

```
$('.red-circle').hover(function() {
    $('.blue-square').fadeOut();
}, function() {
    $('.blue-square').fadeIn();
});
```

Hover is very similar to mouse (enter and leave),
just a little more elegant.

http://jsfiddle.net/o1udqwbm/

Events — scroll

Scroll example:

```
$('window').scroll(function() {
  alert('You just scrolled!');
});
```

http://jsfiddle.net/p0uxmv0n/

Events — toggle

Toggle example:

```
$('button').click(function() {
  $('p').toggle();
});
```

Events — slideToggle

SlideToggle example:

```
$('.title').click(function() {
    $(this).parents('.week').find('.content').slideToggle();
});
```

http://jsfiddle.net/70Lnbvor/

Events — Keypress

Keypress example:

```
$('#input').keypress(function(e) {
    $('#output').append(String.fromCharCode(e.which));
    // the keycode for 'a' is 97
    if ( e.which == 97 ) {
        $('#output').addClass('special');
    }
});
```

http://jsfiddle.net/hamamoto/edjmfmno/

Adding and Removing Classes

add/remove class example:

```
$('#on').click(function(e) {
    $('#square').addClass('rounded');
});

$('#off').click(function(e) {
    $('#square').removeClass('rounded');
});
```

http://jsfiddle.net/hamamoto/edjmfmno/2/

"this"

The this keyword refers to the jQuery object you're currently doing something with.

$(this), and the event will only affect the element you're currently doing something with (for example, clicking on or mousing over).

```
$('div').click(function() {
    $(this).fadeOut('slow');
});
```