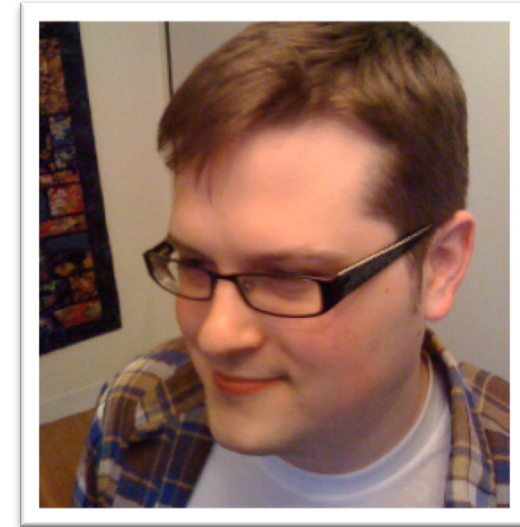# COMP 1950

Day 11

Intro to jQuery

jQuery

About Jquery

- Created by John Resig and introduced on August 26, 2006
- John originally wanted to call the library "jselect"…but all the domains were taken…so he chose jQuery, even though jQuery has little to do with making queries
- JQueries goal was to simplify the process of writing cross browser JavaScript code
- Currently used by over 52% of the 10,000 most visited sites on the internet

About JQuery

- jQuery is JavaScript
  - jQuery is simply a large JavaScript object with methods
- jQuery is a JavaScript Library that sits on top of JavaScript
- jQuery will not run if JavaScript is turned off by the user
- A JavaScript Library is a library of pre-written JavaScript that allows for easier use of JavaScript
- Since jQuery is JavaScript it is client side scripting and is used for front-end development
- jQuery does not completely replace JavaScript syntax, it only makes some elements of JavaScript easier to write and use, such as selecting elements or DOM traversal
  - Other areas of JavaScript are still written in plain JavaScript, such as loops and "if" statements

jQuery = JavaScript

Benefits of JQuery

- jQuery makes writing JavaScript easier
- jQuery includes easy ways to select elements on the DOM using common CSS syntax to select elements on a web page
- jQuery helps with cross-browser compatibility issues that are present in native JavaScript
- jQuery helps you to separate scripting behaviour from presentation
  - jQuery encourages you to keep your scripting coding separate from your HTML code by making scripts easier to write that do not require JavaScript to be mixed in with the HTML code
    - This is similar to the way CSS works by separating style from presentation
- jQuery is widely used, consequently there are a lot of resources available on the web to help you with your jQuery code

Downsides of jQuery

- It is extra code that sits on top of JavaScript
  - Some purists may argue that it is more efficient to write pure JavaScript
- Due to jQuery's ease of use it can often be easily overused
  - Be careful to only use jQuery if it is truly needed
  - Extra animations and special effects should be thought of as icing on the cake and not the cake itself
- Always keep the ideals of progressive enhancement in mind
  - Not everyone surfs the web with JavaScript enabled
  - Be mindful of how your web page will appear if JavaScript is disabled

jQuery usage

- jQuery is found on 58.2% of the 10,000 web pages queried by BuiltWith

58.2%

Source: http://trends.builtwith.com/javascript/jQuery

jQuery Resource

- For general information on learning jQuery visit this web site:

http://learn.jquery.com

- For information on the jQuery API visit this web site:

http://api.jquery.com

Adding the JQuery Library to a Web Page

- The jQuery library requires JavaScript to run

- jQuery is just a single .js JavaScript file that must be included on your web page, just like any other external JavaScript file

- You have a couple of options for including jQuery on your web page
  - You can download the jQuery source code and store it in a file locally or on your web server and then link to that file in your HTML file
  - You can link to a jQuery file that is hosted by a CDN (Content Delivery Network)

jQuery CDN

- The best way to include the jQuery library is through their CDN
- Visit the link below to get the CDN link code to include on your HTML page

https://code.jquery.com

Adding the JQuery Library to a Web Page

- Compressed vs Uncompressed
    - Use compressed or minified version wherever possible
    - Use the uncompressed version if you wish to look at the code of the library and give it a read and explore the inner workings of jQuery
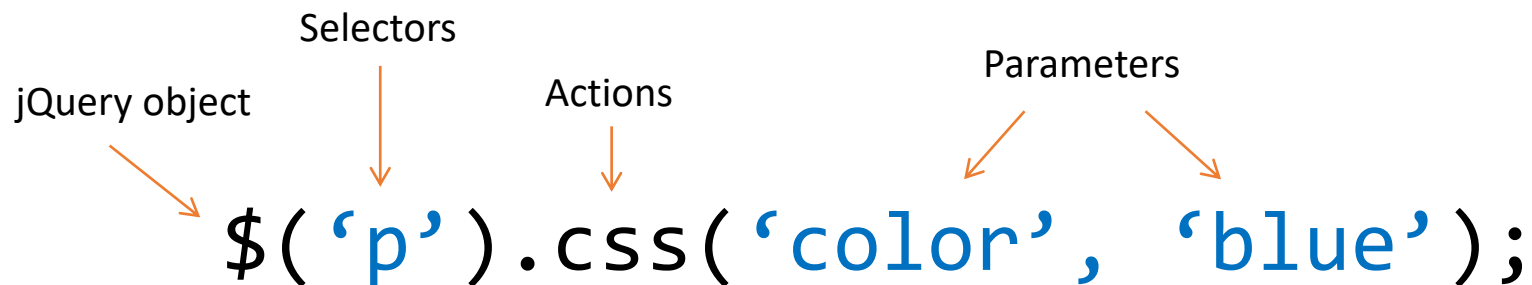
JQuery Code

- jQuery uses a single function called jQuery

- Using this function prevents code conflicts between the jQuery library and custom code that developers create

- Writing the function name jQuery can quickly become tiresome
  - The jQuery function name can be shortened to just "$"
  - Both "jQuery" and "$" will work for your jQuery scripts

jQuery = $

JQuery Code

- Each jQuery command is made up of four parts
  1. jQuery object ("jQuery" or "$")
  2. Selectors (what element on the DOM does this command affect)
  3. Actions (what command to make)
  4. Parameters (what parameters to affect)

Selectors

Parameters

jQuery object

Actions

$('p').css('color', 'blue');

JQuery Code

- jQuery is designed to integrate seamlessly with HTML and CSS
- Knowing how to select elements on the DOM using CSS will help you with jQuery
- jQuery supports many of the more advanced CSS3 selectors

Know how to select HTML elements with CSS!!!

jQuery Code

- Document Ready function
  - jQuery involves selecting elements on a web page, and it often needs the elements of the page to be loaded first before the script can run
  - jQuery includes a built-in event that will execute jQuery code as soon as possible
    - The "document ready" command executes when the page is ready
    - The "document ready" function is a common function which you may see in other scripts you find on the internet

```
$(document).ready(function(e){
    // insert jQuery here
});
```