**Review: Accessing elements of the DOM**

* By DOM collection:
  + Getting the entire collection  
    var imageArray = document.images;
  + Accessing a single element
    - By the array index  
      var dogImage = document.images[0];
    - By the element id  
      var dogImage = document.images.dogImg.src
* By tag name:  
  var paragraphs = document.getElementsByTagName("p");
* By element id attribute:  
  var paragraph = document.getElementById("subtitle");

**jQuery**

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 web site](http://jquery.com/) (May 30, 2017)

* **Add jQuery to your web page**
  + jQuery is just a library of JavaScript objects and methods
    - You can add jQuery to your page by downloading it from [jQuery.com](http://jquery.com/download/), putting it on your own web server, and adding a link in your web page.
      * There is both a “normal” version that is human readable,
      * And a minified version that saves space and loads faster into the browser.   
        Here is an example of a link to the minified version:  
        <head>  
        <script src="jquery-3.2.1.min.js"></script>  
        </head>
  + Or, you can just put a link to a jQuery library that is hosted on a CDN (Content Delivery Network). There are multiple CDN providers. Here is an example of linking to the one provided by Google:  
    <head>  
    <script   
     src="https://ajax.googleapis.com/ajax/libs/jquery/3.2.1/jquery.min.js">  
    </script>  
    </head>
* **jQuery syntax**
  + You select (query) HTML elements and perform *actions* on them.
  + The basic pattern of syntax is: ***$(selector).action( )***
    - ***$*** – an alias for the jQuery function
    - ***selector*** – a "query" to select an HTML element object, or objects
    - ***action()***– a method that will be called on the selected object
  + Example:  
    The action in this example is the jQuery ready method, which calls a self-invoking function.  
    <script>  
     $(document).ready(  
     function()  
     {  
     alert("Hello jQuery!");  
     }  
     );  
    </script>
* **HTML document traversal and manipulation**  
  The jQuery selector function, *$( )*, can select elements by:
  + tag name  
    $("img")[0].src = "Images/dog" + number + ".png";
  + element id  
    $("#subtitle").html("Query by id works!");
  + CSS class  
    $(".big").html("color", "purple");
    - just the first or last element  
      $("p:last").html("color", "blue");
    - tag name + CSS class  
      $("p.big").html("color", "green");
  + Complete documentation on selectors: <http://api.jquery.com/category/selectors/>
* **Event Handling**
  + The .on() method  
    $("p").on("click", function(){  
        $(this).text("new text");  
    });
  + There are event shortcuts for some events, like *click*  
    $("p").click(function(){  
        $(this).text("new text");  
    });