Coder Dojo – Tutorial 5

This is where we get really really complicated! You're about to get a crash course in events and logic while learning another language! Javascript. But this is also where things start to get really fun, because theres Javascript is what enables you to interact with your webpage, so your content can change as you start to use your website.

Getting Started

Long ago, way back when Google was just a computer up to your knee sitting in a garage somewhere, Javascript was complicated, and mean, and horrible, and took the joy out of all the fun things you could do with it. But thankfully, we now have these things called Frameworks. These were invented to make coding easier! They basically take all the complicated bits, wrap them in a much nicer to use code, and let you get all the benefits, without all the headaches! The framework we'll be using today is jQuery.

To get started, first we have to include the jQuery framework. To do this, you need to introduce a "script" tag to the head of your web page as below:

<script type="text/javascript"
*   src="http://code.jquery.com/jquery-1.7.1.min.js">*
</script>

You now have the jQuery framework added!

On Load

Events! On Load is one of the most important events, because without it, jQuery wouldn't work properly! Lets start with a simple example. Once the page loads, we want an alert box to appear saying "Hello World!" (- if you go onto college to do programming, the first program you'll ever write should contain the words Hello World, it's a tradition we programmers have, when we learn a new language, we get it today Hello World.)

To do this, its easy. First we open up a new script tag in the head, just like we did to include the framework. But instead of setting a src attribute, we're going to write our javascript code inside the script tag! So it will look something like this:

```
<script type="text/javascript">
$(document).ready(function() {
        alert("Hello World");
});
</script>
```

So, what we have here, is a small piece of javascript code which says, when the document is ready, alert the words Hello World. The crazy amounts of brackets are very important! Everything you do in javascript is wrapped around those brackets, much like how you have closing tags in HTML.

On Click

Right, lets try do something a bit more complicated. Lets say you have a link on a page, and when you click this link, you want the content in the box below it to change its text, and its colour. So for this, we'll need a link, and a box in the body part of our HTML, like this:

Click me
<div id="mycontent">Click above, to see me change!</div>

A div is just a box, with no special properties like a table or paragraph, just a way of sectioning off, or dividing content, or in our case, making a box!

Ok, now we have our button saying Click me, it's a regular link like you already know how to do, but the href part, where you normally put another page address has this javascript:; thing in it. That's to make sure that when a person clicks on it, the browser doesn't bring the user to another page, we want them to stay on the same page, while we change whats in the mycontent box.

We've given the link an id of mybutton. We'll need this, much like we need it in CSS to change its styles, so that we can add the event to it, that once the link is pressed the box below it changes colour and its content. So in javascript we have to:

1. Wait for the page to load
2. Add an event to #mybutton when its clicked
   a. If the event is called, #mycontent needs to change its text colour, and change its content.

The code for this is: (it again goes in the head)

```
<script type="text/javascript">
$(document).ready(function() {
       $('#mybutton').click(function() {
              $('#mycontent').text('My content has changed now!');
              $('#mycontent').css({'color':'#FF0000' });
       });
});
 </script>
```

Have a play around with this and see what you can come up with! Other events like .click are .mouseenter .mouseout

Try using the .attr to change the src of an image $('#myimage').attr('src', 'newimage.jpg');

Call us over if you think you're ready to try animations!!