# Lab 07 – Javascript and jQuery

### Task One: DOM manipulation in jQuery

In its most basic usage jQuery makes it very straightforward to find elements in the DOM and manipulate them. Last week you used JavaScript to complete the functionality of the contentlist code. Now you are going to do the same thing with jQuery. Use the **contentlist.html** and **contentlist.js** ,in todays zip file to complete the following tasks:

1. Read through the HTML code and comments in **contentlist.html**
2. Read through the JavaScript code and comments in **contentlist.js**
3. Using **jquery** commands complete the behavior of the addContent() function in **contentlist.js** so that its adds the Disney Ducks to the html.
4. Again using **jquery only** modify **contentlist.js** such that when a user clicks on the addcontent button, the addContent() function is called

### Task Two: Javascript vs Jquery

In the last lecture, I showed you some JavaScript examples of DOM manipulation linked to mouse events. I’ve provided the code for these examples on moodle in a file called **mouseevents.html** and **mouseevents.js**.

1. Look at the HTML and JavaScript in both these files and open the **mousevents.html** file in firefox/chrome. Refer to the lecture notes and make sure you know how this code works.
2. In this weeks lecture I introduced you to JQuery as a way of making javascript simpler
3. Using the examples in the JQuery Lecture and the event reference available at <http://api.jquery.com/category/events/> you should be able to recreate the same functionality in JQuery using much less code.
4. I have given you a start with the **mousevents\_jq.html** and **mouseevents\_jq.js** files

### Task Three: Graphical effects in jQuery

Whilst DOM manipulation is a core feature of jQuery, it also provides a rich set of graphical effects that can add to the user experience of a web page. Using the template code from **squares.html** and **squares.js**, complete the following tasks:

1. Read through the HTML & CSS source code in **squares.html** before opening in a web browser; what do you expect it to show?
2. Read through the JavaScript and jQuery code in **squares.js**
   1. What is the behaviour of the script?
   2. Which elements are selected?
   3. What does $(this) refer to?
   4. Find the documentation for ‘hasClass’ function using the search tool on <http://api.jquery.com/>
   5. Find a function in <http://api.jquery.com/category/css/> that could simplify the if … else block.

Now that you are a bit more familiar with using jQuery to alter the appearence of elements, your next task is to experiment with the available effects that the library provides.

1. Visit <http://api.jquery.com/category/effects/>
2. Choose a couple of the available functions (such as **animate()**) and attempt to use them with **squares.js**
3. The best route to understanding the usage of the functions is to briefly read about the behavior of the function, then skip to the examples and try to copy and adapt the code to **squares.js**

For example:

$("div").click(function(){

$(this).css("position", "absolute");

$(this).animate({left:"+=360"}, 1000, function(){});

});

### Advanced Task (this is an extra task for those that want to push themselves a bit):

Zebra striping is a common technique used to display lists of data on webpages.

1. I have given you some code in **table.html** which presents a table of data using HTML badly.
2. Can you write a javascript script using jquery which will stripe this table with alternating dark and light rows? (this is much easier than you think)
3. You will have to do your own research here but, you will need to use a css file and a js file, both of which should be external.
4. You should also ensure that the column headers are highlighted.

|  |  |  |  |
| --- | --- | --- | --- |
| Example Header | Example Header | Example Header | Example Header |
| Row |  |  |  |
| Row |  |  |  |
| Row |  |  |  |

1. Can you highlight a selected row?
2. <http://tablesorter.com/docs/> is a Javascript library that lets you sort tables nicely. Have a go at implementing it here to sort the table based on the headers.

### In the remaining time…

**Continue to work in your groups on the second coursework deliverable- due next week.**

Check out the documentation and books on HTML, CSS, JavaScript and jQuery - there are lots of examples provided to help boost your understanding of the syntax of both languages.

HTML: <http://en.wikibooks.org/wiki/Html>

CSS: <http://en.wikibooks.org/wiki/Css>

JavaScript: <http://eloquentjavascript.net/>

jQuery:

* <http://docs.jquery.com/Tutorials:Getting_Started_with_jQuery> - Tutorial
* <http://docs.jquery.com/> API documentation
* <http://jqfundamentals.com/book/> Recommended Course Text