**Review of jQuery Events**

You know a lot about jQuery events already, but it never hurts to review the basics.

The setup almost always looks like this:

$(document).ready(function() {

$('thingToTouch').event(function() {

$('thingToAffect').effect();

});

});

where "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.

Sometimes these elements are one and the same—you might hover over a <div> to change its opacity. Other times, you might interact with a separate element; for example, you might click on a button to resize a <div>.

Sometimes if you want an effect to occur right away, without an event like .click() or .hover(), you'll skip the second line in the above:

$(document).ready(function() {

$('thingToAffect').effect();

});

Look at the following code and try and determine what is happening:

‘$(document).ready(function() {

$('button').click(function() {

$('#messages').append("<p>Hello!</p>");

});

});

An element with the type **button** must be *clicked* and when this happens “Hello!” is appended to an element with the id “messages”.

**Adding an Event Handler**

Great! Now let's review how to make something happen *with* an event handler. In this case, we'll use .click().

Look at the following code and understand how the event was set up and what happens when the event occurs:

**script.js**

$(document).ready(function(){

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

$(this).fadeOut('fast');

});

});

**Let's .focus()!**

Another event we can make use of is .focus(). We say an element has **focus** when we click on it or tab over to it. If you've ever filled out a form on a web page and seen how each text box lights up when you tab to it or click on it, you've seen focus in action!

The .focus() event handler only works on elements that can receive focus—the list of these elements is a bit vague, but HTML elements like <textarea>s and <input>s are the usual suspects.

**A TextBox**

You can add a textbox to your web page by using the following code:

<input type='text'></input>

What do you think happens in the following code?

**$(document).ready(function(){**

**$('input').focus(function(){**

**$(this).css('outline-color','#FF0000');**

**});**

**});**

When the textbox or any other element of type input gets the focus, it’s outline is highlighted in a specific colour. Using *this* refers to the currently selected input object.

**The .keydown() Event**

You're not limited to mouse events in jQuery—you can trigger events using the keyboard, as well!

The .keydown() event is triggered whenever a key on the keyboard is pressed. It only works on whatever page element has focus, so you'll need to click on the window containing your div before pressing a key in order for you to see its effects.

Let's go ahead and combine our new event with a new effect: .animate()! We'll use this to move an object on the screen whenever we press a key.

The .animate() effect takes two inputs: the animation to perform, and the time in which to perform the animation. Here's an example:

$(document).ready(function() {

$('div').animate({left:'+=10px'},500);

});

This will take the first div it finds and move it ten pixels to the right. Remember, increasing the distance from the left margin moves something to the right; the += bit is just a shorthand for "take the existing number and add ten to it." In this case, it adds ten pixels to the current distance from the left margin.

**Which key is pressed?**

You can figure this out by adding a parameter to the keydown function as follows:

$(document).keydown(function(**key**){

if(key.which==39){$(‘div’).animate({left:’+=10px’},500);

/\*move the div move right 10px over 500ms when the right arrow key is pressed\*/

});

This variable/parameter will store a number associated with the case that is pressed.

The key codes that js uses can be found on the internet. I’ve included them below for reference:

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| |  |  | | --- | --- | | Key | Code | | backspace | 8 | | tab | 9 | | enter | 13 | | shift | 16 | | ctrl | 17 | | alt | 18 | | pause/break | 19 | | caps lock | 20 | | escape | 27 | | page up | 33 | | page down | 34 | | end | 35 | | home | 36 | | left arrow | 37 | | up arrow | 38 | | right arrow | 39 | | down arrow | 40 | | insert | 45 | | delete | 46 | | 0 | 48 | | 1 | 49 | | 2 | 50 | | 3 | 51 | | 4 | 52 | | 5 | 53 | | 6 | 54 | | 7 | 55 | | 8 | 56 | | 9 | 57 | | a | 65 | | b | 66 | | c | 67 | | d | 68 | |  | |  |  | | --- | --- | | Key | Code | | e | 69 | | f | 70 | | g | 71 | | h | 72 | | i | 73 | | j | 74 | | k | 75 | | l | 76 | | m | 77 | | n | 78 | | o | 79 | | p | 80 | | q | 81 | | r | 82 | | s | 83 | | t | 84 | | u | 85 | | v | 86 | | w | 87 | | x | 88 | | y | 89 | | z | 90 | | left window key | 91 | | right window key | 92 | | select key | 93 | | numpad 0 | 96 | | numpad 1 | 97 | | numpad 2 | 98 | | numpad 3 | 99 | | numpad 4 | 100 | | numpad 5 | 101 | | numpad 6 | 102 | | numpad 7 | 103 | |  | |  |  | | --- | --- | | Key | Code | | numpad 8 | 104 | | numpad 9 | 105 | | multiply | 106 | | add | 107 | | subtract | 109 | | decimal point | 110 | | divide | 111 | | f1 | 112 | | f2 | 113 | | f3 | 114 | | f4 | 115 | | f5 | 116 | | f6 | 117 | | f7 | 118 | | f8 | 119 | | f9 | 120 | | f10 | 121 | | f11 | 122 | | f12 | 123 | | num lock | 144 | | scroll lock | 145 | | semi-colon | 186 | | equal sign | 187 | | comma | 188 | | dash | 189 | | period | 190 | | forward slash | 191 | | grave accent | 192 | | open bracket | 219 | | back slash | 220 | | close braket | 221 | | single quote | 222 | |  |  | |

**Questions and Exercises**

1. Create a program that adds a blue square to the screen. When the mouse hovers over the box it turns red. When it’s clicked it disappears.

Use this to help:

$('div').hover(function(){

$('div').addClass('red');

});

1. Now modify your code so that it turns yellow when its double clicked ( .dblclick()) (comment out the click code otherwise it will disappear before you get a chance to double click it).
2. Create a program that allows a user to enter a name and a password into two separate textboxes. When either receives focus they change their background colours to red.
3. Create a program that has an image of a car. When the A key is pressed on the web page the image moves diagonally down to the bottom right corner of the page.