Week 3: Functions, Event Handlers & a New Window

The Function

- A JavaScript *function* is a set of JavaScript *statements* that perform a task
- A JavaScript *function* is defined once, but can be *executed*, *invoked* or *called* many times
- A JavaScript *function* can be passed *arguments*, or *parameters*, specifying the *value* or *values* that the function is to operate upon
- A JavaScript *function* can also *return* a *value*

```
function funcName(param1, param2, param3) {
     object.method(param1, param2, param3);
     }
```

// The function here is defined by using the keyword "function"

// The function is then given a "functionName" defined by the author

// The functionName then uses the parenthesis operator, which is used to invoke a function and holds the parameters of the function, separated by commas

// The statement of the function, which is the body of the function held within curly brackets and separated by semi-colons, is what actually performs the task(s) of the function(s)

// This statement uses the dot operator to access an object's property/method and defines its parameters within parenthesis much like the functionName itself

The Event Handler

- A JavaScript *event handler* is written within an HTML tag and triggers events that the user (or the page) should perform
- A JavaScript *event handler assigns a function* directly to the value of the event handler

```
<a href="#"  onclick="funcName('paramvalue1', 'paramvalue2','paramvalue3')"  </a>
```

// The event handler is located within the anchor tag of your link and assigns the value of the event handler as the "function which it calls" within double quotations

// The value of this assignment calls the function with defined parameter values within the parenthesis operator

// The parameter values are written within single quotation marks and separated by commas

One New Window – p. 132, Script 7.1:

```
function newWindow() {
     window.open("images/pixel2.jpg", "catWin", "width=330,height=250")
     }
```

// This function "newWindow" does not state parameter values to be defined by the link

// Instead the function leaves its parenthesis empty and uses the statement "window.open" to define the parameter values

// Notice that these parameter values are written as a string value within double quotes and separated by commas

```
<a href="javascript:newWindow()">Pixel</a>
```

// Another way to simulate the "onClick" event handler is to simply call the javascript directly from the anchor tag as a standard link

// To do so, you assign the value of the link as the name of the function called by the word "javascript" with a colon

// Notice, also, that if the parameters are defined by the function's statement you will leave the parenthesis of the funcName within the anchor tag blank

Multiple Content New Window – p. 134, Script 7.2:

```
function newWindow(bookjpg) {
window.open(bookjpg, "bookWin", "width=140,height=160")
}
```

// This function "newWindow" states only one parameter value to be defined by the event handler

// Notice that the parameter value to be defined by the link is written without double quotation marks and the parameters that are defined by the statement are again written as a string value within double quotes, but all are still separated by commas

```
<a href="javascript:newWindow('images/java2-sm.jpg')">Java 2 ...</a><br/>
<a href="javascript:newWindow('images/cont-sm.jpg')">Macromedia... </a><br/>
<a href="javascript:newWindow('images/key-sm.jpg')">Keynote... </a>
```

// in this case, the parameter to be defined by the link is defined within the parenthesis and written with single quotation marks when the function is called

Infinite New Windows:

```
function newWindow(winContent, winName, winFeatures) {
        window.open(winContent, winName, winFeatures);
        }
```

// This function "newWindow" states three parameter values to be defined by the event handler, thus being practical to open new windows with values defined only by the link

```
<a href="#" onClick="newWindow('newwindow.html','NewWindow',',width=500,height=500')">New Window &gt;&gt;<br></a>
```

// The "onClick" event handler is located within the anchor tag of your link and assigns the value of the event handler as the "function which it calls" within double quotations

// The value of this assignment calls the function with parameter values defined within the parenthesis

// The parameter values are written within single quotation marks and separated by commas

// notice that the value for "winFeatures" contains multiple values separated by commas within its single quotation marks