JavaScript Basics Continued...

www.w3schools.com/js

JavaScript document.write()

The write() method writes HTML expressions or JavaScript code to a document.

Syntax

```
document.write("sometext");
document.write(exp1,exp2,exp3,...);
document.write("sometext"+exp);
```

JavaScript Functions

- A function is JavaScript is executed by an event or by a function call.
- It can be defined both in the <head> and in the <body>, but it is wise to put it in the <head> to make sure that it is loaded first before being called.

Syntax

```
function functionname(var1,var2,...,varX)
{
some code
}  // the word "function" should be lowercase
```

JavaScript Functions

- Functions may be declared without parameters, but can be used with parameters (variadic function)
- A variable called **arguments** is an array that contains any passed parameters.

```
function max(x,y,z) {
for (i in arguments) {
document.write(arguments[i] + "<br/>");
}
}
max(1,2,3);
```

JavaScript Functions

- ParamList may be comma delimited param names.
  ```
  function sum(x,y);
  ```

- If parameter is primitive value (number, string): pass by value, if object=pass by reference.
  ```
  sum(x,y);    sum(3+4);
  ```

- Functions may have a return statement at the end.

JavaScript Predefined Functions

- eval - evaluates a string as Javascript code.
- isFinite - evaluates a parameter(number) if it is finite
- isNaN - evaluates a parameter if it is "not a number".
- parseInt, parseFloat - Conversion from string to int or float.
- Number, String - converts an **object** to number or string.
- Browser specific dialog functions
  - alert
  - prompt
  - confirm

  More Predefined Functions and Demos here:
  http://www.w3schools.com/jsref/jsref_obj_global.asp

JavaScript Popup Boxes

Three Types of Popup Boxes

- Alert Box
- Confirm Box
- Prompt Box

Alert Box

- Is used to make sure information comes through to the user.
- When an alert box pops up, the user will have to click "OK" to proceed.

Syntax

```
alert("sometext");
```

Confirm Box

- Is used to ask the user to verify or accept something.
- The user will have to click "OK" or "Cancel" to proceed.
- If the user clicks "OK" the box returns true. If the user clicks "Cancel" the box returns false.

  Syntax

```
confirm("sometext");
```

Prompt Box

- Is used if inputs are needed before entering a page.
- The user will have to click "OK" or "Cancel" to proceed after entering an input value.
- If the user clicks "OK" the box returns the input value. If the user clicks "Cancel" the box returns null.

  Syntax

```
prompt("sometext","defaultvalue");
```

JavaScript Loops

Loops execute a block of code a specified number of times, or while a specified condition is true.

- For Loop
- While Loop
- For...In Loop

JavaScript For Loop

The for loop is used when you know in advance how many times the script should run.

Syntax

```
for
(variable=startvalue;variable<=endvalue;varia
ble=variable+increment)
{
code to be executed
}
```

JavaScript While Loop

The while loop loops through a block of code while a specified condition is true.

Syntax

```
while (condition)
  {
  code to be executed
  }
```

JavaScript For...In Loop

Used in iterating over the properties of an object or array.

Syntax

```
for (var i in objVar) {
  //each object property is iterated
    }
```

JavaScript Continue and Break Statements

The **break** statement will break the loop and continue executing the code that follows after the loop (if any).

The **continue** statement will break the current loop and continue with the next value.

JavaScript Events

Events are actions that can be detected by JavaScript.

Examples of events:
- A mouse click
- A web page or an image loading
- Mousing over a hot spot on the web page
- Selecting an input field in an HTML form
- Submitting an HTML form
- A keystroke

JavaScript Events

onload and onunload

The onload and onunload events are triggered when the user enters or leaves the page.

onload – often used to check the visitor's browser version, and load the proper version of the web page.

onunload – used to deal with cookies (although the onLoad is also used here)

JavaScript Events

onsubmit

The onsubmit event is used to validate ALL form fields before submitting it.

onmouseover

The onmouseover event can be used to trigger a function when the user mouses over an HTML element:

http://www.w3schools.com/js/js_events.asp