

Web Development Series

JavaScript Fundamentals

What is Javascript?

- JavaScript was originally created by Netscape and was called ECMAScript
- JavaScript is the main scripting language of the Web
- JavaScript runs on the client as oppose to the server
- JavaScript has NOTHING to do with the Java programming language

What Are Some Uses of JavaScript?

- HTML Form Validation
- Event Handling – click, hover, etc
- Powers HTML5 Features
- Search and form autocomplete
- Animations
- JQuery, Ajax, and other libraries are all JavaScript

Adding JavaScript to an HTML Page?

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <script>
```

```
      inline Javascript goes here
```

```
    </script>
```

```
    <script type="text/javascript" src="myscript.js"></script>
```

```
  </head>
```

```
<body>
```

```
</body>
```

```
</html>
```

JavaScript Variables

- Variables should start with a letter
- They are case sensitive
- `var x;` //Declares an empty variable called x
- `x = 4;` //Declares a variable named x with a value of 4
- `var x = 4` //Declares a variable named x with a value of 4

JavaScript Arrays

- Variables store one value (usually). Arrays store multiple values

```
var cars = new Array();
```

```
cars[0] = "Honda";
```

```
cars[1] = "Toyota";
```

```
cars[2] = "Ford";
```

```
var cars = new Array("Honda", "Toyota", "Ford");
```

JavaScript Loops

Loops are used to run the same code over and over until a certain condition is met

For Loop – Loops through a block of code a number of times. You usually know the number of times

While Loop – Loops through until a condition is true. You usually don't know the number of times

For In Loop – Loops through array object values

JavaScript Loop Syntax

FOR LOOP

```
for(var i = 0; i <= 5; i++){  
    document.write("number"+ i+"<br />");  
}
```

WHILE LOOP

```
var i = 0;  
while(i <= 5){  
    document.write("number"+ i+"<br />");  
    i++;  
}
```

JavaScript Functions

A function is a block of code that runs when it is called

Create a Function:

```
function someFunction(){  
    document.write("This is some function");  
}
```

Call a Function:

```
someFunction();
```

JavaScript Objects

Everything is an object in JavaScript

Some built in objects: String, Date, Array

Objects have properties

Properties can be accessed like this...

`objectName.propertyName`

Example

```
var greeting="Hello";
```

```
var x=greeting.length;
```

x is equal to 5 as it is equal to

the “length” property of the “greeting” variable

THAT'S IT!