

J a v a s c r i p t

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Notes from Jennifer Niederst: Web Design in a Nutshell
and Thomas A. Powell: HTML & XHTML, Fourth Edition

Based on a tutorials by Prof. Daniel Sauter / Prof. Casey Reas

What is Javascript?

Client-side scripting language

Scripting languages: somewhere between markup and full languages

Originally developed by Netscape (introduced with Netscape 2.0)

Separate from and extends HTML functionality

Can be viewed as part of HTML Source

(unlike server-side languages, such as CGI, ASP, PHP)

Common uses for Javascript

Cross-browser checking

Alert messages

Form validation

Opening new windows

Image rollovers

Interactivity, on actions such as:

`onLoad`

`onKeyPress`

`onMouseDown`

`onMouseOver`

`onMouseMove`

Pull-down menu navigation

Randomization

Sample Javascript code

```
<html>

<head>
<title>Alert</title>
</head>

<body>
<h1>First JavaScript Example</h1>
<a href="javascript:alert('Welcome to JavaScript.')">
Click me!
</a>
</body>

</html>
```

<script> tag

Hiding the code from old browsers

```
<script language="JavaScript">  
<!--  
script goes here  
//-->  
</script>
```

```
<noscript>  
This page requires JavaScript. Please turn on JavaScript  
if you have it and reload this page  
</noscript>
```

Or link to an external JavaScript file

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

Popup windows

```
<html>
<head>
<script language="JavaScript">
<!--
function openWin(URL) {
window.open(URL, "Here", "width=300, height=300");
}
//-->
</script>
</head>

<body>
<a href="javascript:openWin('here.html');">Go here.</a>
</body>
</html>
```

Image swapping

```
<html>
<script language="JavaScript">
<!--
function swap(ref, filename, over)
{
    if(window.document.images) {
        if (over) {
            window.document.images[ref].src = filename;
        } else {
            window.document.images[ref].src = filename;
        }
    }
}
//-->
</script>
<head>
<title>Swapping images</title>
</head>

<body>
<a href="#" onMouseOver="swap('blank1', 'brittany.jpg', true)"
onMouseOut="swap('blank1', 'emptysq.gif', false)">
</a>

<a href="#" onMouseOver="swap('blank2', 'shaun.jpg', true)"
onMouseOut="swap('blank2', 'emptysq.gif', false)">
</a>
</body>
</html>
```

Randomization

```
<html>
<head>
<title>Random image</title>
<script language="JavaScript">
<!--
var imgArr = new Array ("brittany.jpg","carly.jpg","mike.jpg","shaun.jpg");
var totalPics = imgArr.length;
var now = new Date()
var sec = now.getSeconds()
var pic = sec % totalPics;
imgSrc = imgArr[pic];
//-->
</script>
</head>

<body>
<h1>Random image</h1>
<br>
<script language="JavaScript">
<!--
document.write('
</script>
</body>
</html>
```

Browser detection

Embedding different style sheets for different browsers:

```
<head>
<script language="JavaScript">
<!--
if ((navigator.appName.indexOf("Explorer") >= 0)
    && (navigator.appVersion.indexOf('4.0') >= 0)) {
    document.writeln('<link rel=stylesheet
href="netscape.css" type="text/css">');
}
if ((navigator.appName.indexOf("Netscape") >= 0)
    && (navigator.appVersion.indexOf('4.0') >= 0)) {
    document.writeln('<link rel=stylesheet
href="msie.css" type="text/css">');
}
//-->
</script>
</head>
```

Browser detection is used here to load a different style sheet documents for Internet Explorer and Netscape.