

What is JavaScript?

JavaScript is a scripting language that enables web developers/designers to build more functional and interactive websites.

Common uses of JavaScript include:

- Alert messages
- Popup windows
- Dynamic dropdown menus
- Form validation
- Displaying date/time

JavaScript usually runs on the *client-side* (the browser's side), as opposed to *server-side* (on the web server). One benefit of doing this is performance. On the client side, JavaScript is loaded into the browser and can run as soon as it is called. Without running on the client side, the page would need to refresh each time you needed a script to run.

What do I need to create JavaScript?

You can create JavaScript using the same equipment you use when creating HTML. That is:

- Computer
- Text editor. For example, Notepad (for Windows), Pico (for Linux), or Simpletext (Mac). You could use a HTML editor if you like but it's not needed.
- Web Browser. For example, Internet Explorer or Firefox. You will need to ensure JavaScript is enabled within your browser's settings (this is normally enabled by default).

The next lesson will show you how to enable/disable JavaScript in your browser.

How to enable JavaScript

To view webpages with JavaScript, you need to ensure your browser has JavaScript enabled. Generally speaking, you can still view the webpage without JavaScript, but you will not be able to take advantage of the JavaScript functionality.

How do I check if my browser has JavaScript enabled?

You normally do this by checking your browser's *options*. This will depend on the browser you're using. Instructions for some of the more common browsers are below:

Internet Explorer (6.0):

1. Go to *Tools* from the top menu
2. Select *Internet Options*
3. Click on the *Security* tab
4. Click *Custom Level*
5. Scroll down until you see the *Scripting* section
6. Ensure that the *Active Scripting* option is set at *Enabled*
7. Click *OK*

Netscape Navigator (4.8):

1. Go to *Edit* from the top menu
2. Select *Preferences*

3. Select *Advanced*
4. Select *Scripts & Plugins*
5. Check the *Enable JavaScript* checkbox
6. Click *OK*

Mozilla Firefox (1.0):

1. Go to *Tools* from the top menu
2. Select *Options*
3. Select *Web Features* from the left menu
4. Ensure the *Enable JavaScript* option is checked
5. Click *OK*

Mozilla Firefox (1.5):

1. Go to *Tools* from the top menu
2. Select *Options*
3. Click on the *Content* button
4. Ensure that the *Enable JavaScript* option is checked
5. Click *OK*

Apple Safari (1.0):

1. Go to *Safari* from the top menu
2. Select *Preferences*
3. Select *Security*
4. Ensure that the *Enable JavaScript* option is checked
5. Click *OK*

How do I disable JavaScript?

You simply go through the steps above but ensure the JavaScript options are not checked/selected.

If you're developing web pages with JavaScript, it's good practice to view your website with JavaScript disabled. This will show you what your website will look like to users who choose to disable JavaScript.

Other browsers?

Most (if not all browsers) give you the option to enable/disable JavaScript. If your browser is not listed above, the steps above will give you some idea of how to find it. Just look for something called *tools*, *options*, *preferences* or something similar.

Warning

Java and JavaScript are two different things - make sure you're enabling/disabling the right option!

JavaScript Syntax

What does *JavaScript syntax* mean? JavaScript syntax refers to a set of rules that determine how the language will be written (by the programmer) and interpreted (by the browser).

The JavaScript syntax is loosely based on the Java syntax. Java is a full blown programming environment and JavaScript could be seen as a sub-set of the Java syntax. Having said this, that is where the similarities end - Java and JavaScript are two totally different things.

In learning JavaScript you will become familiar with terms such as *variables*, *functions*, *statements*, *operators*, *data types*, *objects* etc.

It will take most of this tutorial to show you the complete JavaScript syntax. For now, I'll give you a quick intro by showing you an example and explanation.

Example code

```
<script type="text/javascript">
<!--
    document.write("JavaScript is not Java");
-->
</script>
```

This results in:

JavaScript is not Java

The above example is how you write text to a web page using JavaScript.

Explanation of code

- The `<script>` tags tell the browser to expect a script in between them. You specify the language using the `type` attribute. The most popular scripting language on the web is JavaScript.
- The bits that look like HTML comments tag (`<-- -->`) are just that - HTML comment tags. These are optional but recommended. They tell browsers that don't support JavaScript (or with JavaScript disabled) to ignore the code in between. This prevents the code from being written out to your website users.
- The part that writes the actual text is only 1 line (`document.write("JavaScript is not Java");`). This is how you write text to a web page in JavaScript. This is an example of using a JavaScript function (also known as *method*).

Where to put your scripts?

You can place your scripts in any of the following locations:

- Between the HTML document's head tags.
- Within the HTML document's body (i.e. between the body tags).
- In an external file (and link to it from your HTML document).

JavaScript examples

Popup Window

```
<!-- JavaScript examples by Quackit.com -->
<script type="text/javascript">
// Popup window code
function newPopup(url) {
    popupWindow = window.open(

        url, 'popUpWindow', 'height=700,width=800,left=10,top=10,resizable=yes,
scrollbars=yes,toolbar=yes,menubar=no,location=no,directories=no,status=yes')
}
</script>
<a href="JavaScript:newPopup('http://www.quackit.com/html/codes/')">Get
your HTML codes here!</a>
```

Jump Menu

```

<!-- JavaScript examples by Quackit.com -->
<script language="javascript" type="text/javascript" >
<!-- hide
function jumpto(x){

if (document.form1.jumpmenu.value != "null") {
    document.location.href = x
}
}

// end hide -->
</script>
<form name="form1">
<select name="jumpmenu"
onChange="jumpto(document.form1.jumpmenu.options[document.form1.jumpmenu.o
ptions.selectedIndex].value)">
    <option>Jump to...</option>
    <option value=http://www.quackit.com>Quackit Homepage</option>
    <option value=http://www.quackit.com/javascript/>JavaScript</option>
    <option value=http://www.quackit.com/html/>HTML</option>
    <option value=http://www.quackit.com/css/>CSS</option>
    <option value=http://www.quackit.com/sql/tutorial/>SQL</option>
    <option value=http://www.quackit.com/database/tutorial/>Database
Tutorial</option>
    <option value=http://www.quackit.com/web_hosting/>Web Hosting
Tutorial</option>
</select>
</form>
<p style="font-family:verdana,arial,sans-serif;font-
size:10px;color:#999;">Codes by <a
href="http://www.quackit.com">Quackit</a>

```

Automatically launch the "print" dialog

```

<!-- JavaScript examples by Quackit.com -->
<a href="JavaScript:window.print();">Print this page</a>

```

"Print" dialog with printer icon

```

<!-- JavaScript examples by Quackit.com -->
<a href="JavaScript:window.print();"></a>

```

Alert Box

```

<!-- JavaScript examples by Quackit.com -->
<input type="button" onclick="alert('Wow... you sure do know how to
click!');" value="Click me..." />

```

Confirm Box

```
<!-- JavaScript examples by Quackit.com -->
<script type="text/javascript">
function confirmHappy()
{
var happiness=confirm("Are you sure you're happy?");
if (happiness==true)
{
    alert("Wow! You seem really happy!");
}
else
{
    alert("You should get out more!");
}
}
</script>
<input type="button" onclick="confirmHappy()" value="If you're happy and
you know it, click me..." />
```

Prompt

```
<!-- JavaScript examples by Quackit.com -->
<script type="text/javascript">
function displayPrompt()
{
var name=prompt("What's your name?", "Homer");
if (name!=null && name!="")
{
    alert("Well " + name + ". You seem very daring!");
}
else
{
    alert("Hey, I asked you your name!");
}
}
</script>
<input type="button" onclick="displayPrompt()" value="I dare you to click
me!" />
```

Status Bar Messages

```
<!-- JavaScript examples by Quackit.com -->
<a href="http://www.quackit.com/html/codes/"
onmouseover="JavaScript:window.status='Get your HTML codes here!'; return
true;"onmouseout="JavaScript:window.status=''; return true">Hover over
me!</a>
```

Image Rollover

```
<!-- JavaScript examples by Quackit.com -->
<script type="text/javascript">
<!--
// Pre load images for rollover
if (document.images) {
    smile = new Image
    nosmile = new Image
```

```

        smile.src = "http://www.quackit.com/pix/smile.gif"
        nosmile.src = "http://www.quackit.com/pix/nosmile.gif"
    }

    function swapImage(thisImage,newImage) {
        if (document.images) {
            document[thisImage].src = eval(newImage + ".src")
        }
    }
    -->
</script>
<a href="http://www.quackit.com/javascript/image_rollovers.cfm"
onMouseOver="swapImage('jack','smile')"
onMouseOut="swapImage('jack','nosmile')">

</a>

```

Timed Redirect

```

<!-- JavaScript examples by Quackit.com -->
<script type="text/JavaScript">
<!--
function timedRedirect(redirectTo, timeoutPeriod) {
    setTimeout("location.href = redirectTo;",timeoutPeriod);
}
//    -->
</script>
<a href="JavaScript:void(0);"
onclick="JavaScript:timedRedirect(redirectTo='http://www.quackit.com/html/
examples/',
    timeoutPeriod='2000')">Redirect in 2 seconds...</a>

```

Timed Refresh

```

<!-- JavaScript examples    by Quackit.com -->
<script type="text/JavaScript">
<!--
function timedRefresh(timeoutPeriod) {
    setTimeout("location.reload(true);",timeoutPeriod);
}
//    -->
</script>
<p><a href="javascript:timedRefresh(3000)">Refresh this page in 3
seconds...</a></p>

```