

# JavaScript

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## Introduction

Simple programming language in the browser

Basically no relation to Java -- just a marketing name

Used to be incompatible versions

Later became a standard under ECMA

Works best in IE 5 or later, Netscape 6 or later, Mozilla 1.0 or later. Mozilla probably has the best JavaScript implementation.

We will not worry about weird JavaScript required by old browsers

## JavaScript Niche

Make the client more responsive in a client/server system

A "thicker" client

Advantages: more responsive, doesn't require a request/response roundtrip

e.g. on product detail page for a t-shirt, have a pop-up menu for color. Use

JavaScript to swap the image to show different shirts without doing a whole form submit.

JavaScript can do things in the browser: adjust the HTML in the page, adjust the window, open new windows

Javascript cannot: use the local filesystem, do networking

## JavaScript Language Basics

<script> section -- runs on document load

No type declarations required

Variables are essentially global by default. e.g. count below. (variables are actually properties of a global context)

Function definitions

strings -- "hello" or 'hello', use + to concat

"var" -- declare a local variable (as opposed to a global)

alert(str) -- puts up an alert panel

## JavaScript and Browser

document -- the HTML document'

document.name -- refer to a named element in the document

document.images -- array of images

document.forms -- array of forms

There are also ways to access the window, cookies, etc.

Use Mozilla's JavaScript Console to see error messages.

# JavaScript Example

```
<html>
<head>
<title>JS Demo</title>

<script language="JavaScript">

function hello(greeting) {
    var str = greeting + "!!!";
    alert(str);
}

count = 0;
function upCount() {
    count++;
    alert(count);
}

function noFear() {
    var fear = document.affirm.fear.value;
    if (!document.affirm.mockMode.checked) {
        alert("No " + fear + " to be seen around here!");
    }
    else {
        var mock = "Being afraid of " + fear + " is stupid!";
        window.status = mock
        document.affirm.mock.value = mock;
    }
}
</script>

</head>

<body>

<p>

<button onClick="hello('hi there');" >Say Hello</button>

<br><button onClick="upCount();" >Count</button>

<br><a onClick="alert('holy ####!')">oops</a>

<p>
Thing you are afraid of...
<form name=affirm>
    <input type=text name=fear>
    <p><input type=button onClick="noFear();" value="No Fear">
    Mock mode:<input type=checkbox name=mockMode>
    <p><input type=text size=40 name=mock>
</form>

</body>
</html>
```

