



Computer Science 50

Introduction to Computer Science I

Harvard College

Week 9

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Image from <http://members.memlane.com/gromboug/P16MvSig.htm>.



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Mispellings

```
$dictionary[$word] = TRUE;
```

RSS

`http://cyber.law.harvard.edu/rss/rss.html`



RSS

```
<?xml version="1.0" encoding="UTF-8"?>
<rss version="2.0">
  <channel>
    <title></title>
    <description></description>
    <link></link>
    <item>
      <guid></guid>
      <title></title>
      <link></link>
      <description></description>
      <category></category>
      <pubDate></pubDate>
    </item>
    [...]
  </channel>
</rss>
```

JavaScript

:: Core JavaScript 1.5 Reference

http://developer.mozilla.org/en/docs/Core_JavaScript_1.5_Reference

:: A re-introduction to JavaScript

http://developer.mozilla.org/en/docs/A_re-introduction_to_JavaScript

:: JavaScript Reference

<http://www.w3schools.com/jsref/>

:: JavaScript Tutorial

<http://www.w3schools.com/js/>

JavaScript

```
<script type="text/javascript">  
// <br/><br/>    . . .<br/><br/>// ]]&gt;<br/>&lt;/script&gt;</pre></div><div data-bbox="938 875 953 900" data-label="Page-Footer"><p>7</p></div>
```

JavaScript

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

Statements

```
:: break
:: const
:: continue
:: do ... while
:: for
:: for ... in
:: for each ... in
:: function
:: if ... else
:: return
:: switch
:: throw
:: try ... catch
:: var
:: while
:: with
:: ...
```

http://developer.mozilla.org/en/docs/Core_JavaScript_1.5_Reference#Statements

focus ()

```
<script type="text/javascript">
// 

    // put cursor in username field if empty
    if (document.forms.login.username.value == "")
    {
        document.forms.login.username.focus();
        document.forms.login.username.value = document.forms.login.username.value;
    }

    // else put cursor in password field
    else
    {
        document.forms.login.password.focus();
        document.forms.login.password.value = document.forms.login.password.value;
    }

// ]]&gt;</pre></div><div data-bbox="921 875 957 902" data-label="Page-Footer"><p>10</p></div>
```

focus ()

```
<script type="text/javascript">
// 

    // get fields
    var username = document.getElementById("username");
    var password = document.getElementById("password");

    // put cursor in username field if empty
    if (username.value == "")
    {
        username.focus();
        username.value = username.value;
    }

    // else put cursor in password field
    else
    {
        password.focus();
        password.value = password.value;
    }

// ]]&gt;</pre></div><div data-bbox="924 875 953 901" data-label="Page-Footer"><p>11</p></div>
```

Validation

Email:

Password:

Password (again):

I agree to the terms and conditions:

Regular Expressions

:: RegEx

http://developer.mozilla.org/en/docs/Core_JavaScript_1.5_Reference:Global_Functions:RegExp

:: String

http://developer.mozilla.org/en/docs/Core_JavaScript_1.5_Reference:Global_Functions:String

http://www.w3schools.com/jsref/jsref_obj_regexp.asp

Global Objects

```
:: Array
:: Boolean
:: Date
:: Function
:: Math
:: Number
:: Object
:: RegExp
:: String
:: ...
```

http://developer.mozilla.org/en/docs/Core_JavaScript_1.5_Reference#Global_Objects

Objects

```
var obj = new Object();
```

```
var obj = {};
```

```
obj.key = value;
```

```
obj["key"] = value;
```

```
var obj = { key: value };
```

Arrays

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

```
var a = [];
```

```
a[0] = "foo";
```

```
a[1] = "bar";
```

```
a[2] = "baz";
```

Arrays

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

```
var a = [];
```

```
a[a.length] = "foo";
```

```
a[a.length] = "bar";
```

```
a[a.length] = "baz";
```

Event Handlers

```
:: onblur
:: onchange
:: onclick
:: onfocus
:: onkeydown
:: onkeyup
:: onload
:: onmousedown
:: onmouseup
:: onmouseout
:: onmouseover
:: onmouseup
:: onresize
:: onselect
:: onsubmit
:: ...
```

http://www.w3schools.com/jsref/jsref_events.asp

CSS Properties

```
:: className  
:: style
```

<http://codepunk.hardwar.org.uk/css2js.htm>

blink

```
function blinker()  
{  
    var blinks = document.getElementsByName("blink");  
    for (var i = 0; i < blinks.length; i++)  
    {  
        if (blinks[i].style.visibility == "visible")  
            blinks[i].style.visibility = "hidden";  
        else  
            blinks[i].style.visibility = "visible";  
    }  
}
```

Debuggers

- :: FireBug

 - <https://addons.mozilla.org/en-US/firefox/addon/1843>

- :: Firefox plus DOM Inspector

 - <http://www.mozilla.com/firefox/>

- :: JavaScript Debugger

 - <https://addons.mozilla.org/en-US/firefox/addon/216>

DOM

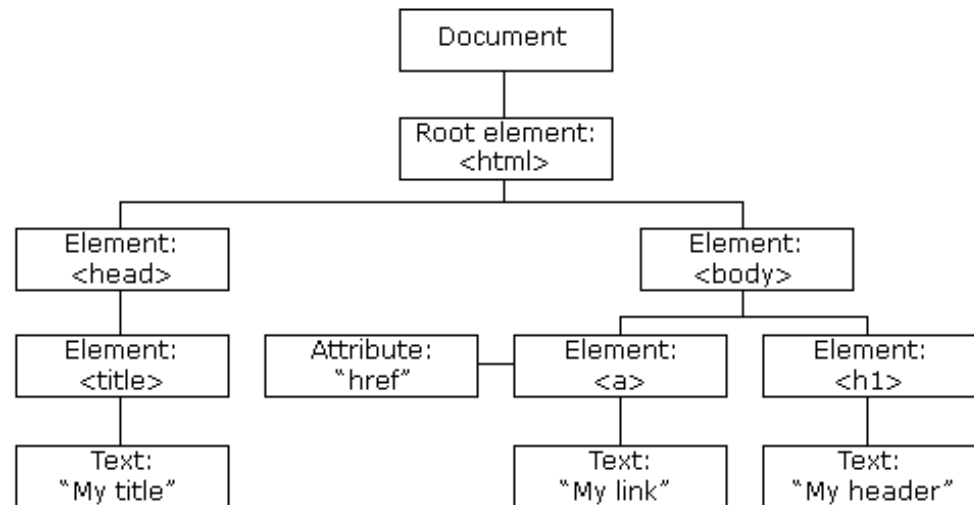
```
<!DOCTYPE html PUBLIC
  "-//W3C//DTD XHTML 1.0 Transitional//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>My title</title>
  </head>
  <body>
    <a href="">My link</a>
    <h1>My header</h1>
  </body>
</html>
```

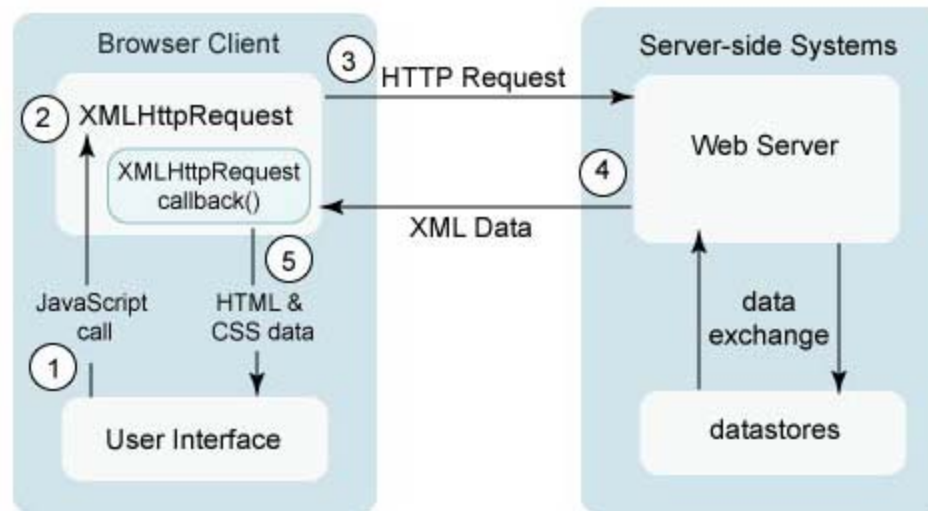
DOM

```
<!DOCTYPE html PUBLIC
  "-//W3C//DTD XHTML 1.0 Transitional//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>My title</title>
  </head>
  <body>
    <a href="">My link</a>
    <h1>My header</h1>
  </body>
</html>
```



XMLHttpRequest



Methods

```
:: abort ()  
:: getAllResponseHeaders ()  
:: getResponseHeader (header)  
:: open (method, url)  
:: open (method, url, async)  
:: open (method, url, async, user)  
:: open (method, url, async, user, password)  
:: send ()  
:: send (data)  
:: setRequestHeader (header, value)
```

Properties

```
:: onreadystatechange
:: readyState
  :: 0 (uninitialized)
  :: 1 (open)
  :: 2 (sent)
  :: 3 (receiving)
  :: 4 (loaded)
:: responseBody
:: responseText
:: responseXML
:: status
  :: 200 (OK)
  :: 404 (Not Found)
  :: 500 (Internal Server Error)
  :: . . .
:: statusText
```



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