Introduction to webpage building

(HTML, CSS, JavaScript)

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Introduction

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Who would have that the pursuits of the 1980's striving to create an interactive academic network would result in the modern day phenomenon that is the Internet? Millions of users around the world access this global system utilizing it for virtually every aspect of their lives. Be it banking, database management, library resources, information exchange, trade, shopping, communication, entertainment or simply to kill some time the Internet is unmatched in its breadth and scope.

With the ever expanding network, including virtually every country on this planet, the Internet is an unparalleled resource not only for business and governmental agencies, academia and economics, but also for each individual with access to it.

It is beyond doubt that the Internet (with its now fundamentally societal inseparable aspects such as e-mail, online shopping and chat capabilities) has revolutionized the way people in developed countries think about their communication opportunities. It is because of this fast and vast development that the average Internet consumer ought to have insight into its structure, utility and management. Being able to build and maintain a webpage gives the average Internet user an advantage over the rest by taking an active role in creating this world-wide-web of information. Further, considering the developments of the past decade, it would be unsurprising that the novel and specialized knowledge involving web based programming will become the standard practice of tomorrow. Why be left behind; why wait?

This workshop is designed so as to introduce participants into the broad world of webpage building by presenting step-by-step essential instructions on how to construct a web based portal. No prior knowledge is required, no expensive software is needed. Though fascinating in its own right the history, economic impact and cultural developments are largely omitted from this workshop, seeing as each of these topics would require a separate full day session.

The focus thus for this event is the acquisition of webpage building skills that can be directly translated into immediate use. The goal of this workshop is to have each participant leave not only with insight into the structure of a webpage, but also his/her first online accessible webpage. The workbook is divided into logical sections building upon each other to create a complete introductory comprehension of all webpage aspects.

Each page-spread is organized in such a way as to present topics, explain them, give examples and leave enough space to make personalized comments. Enjoy!

Structure of the Internet

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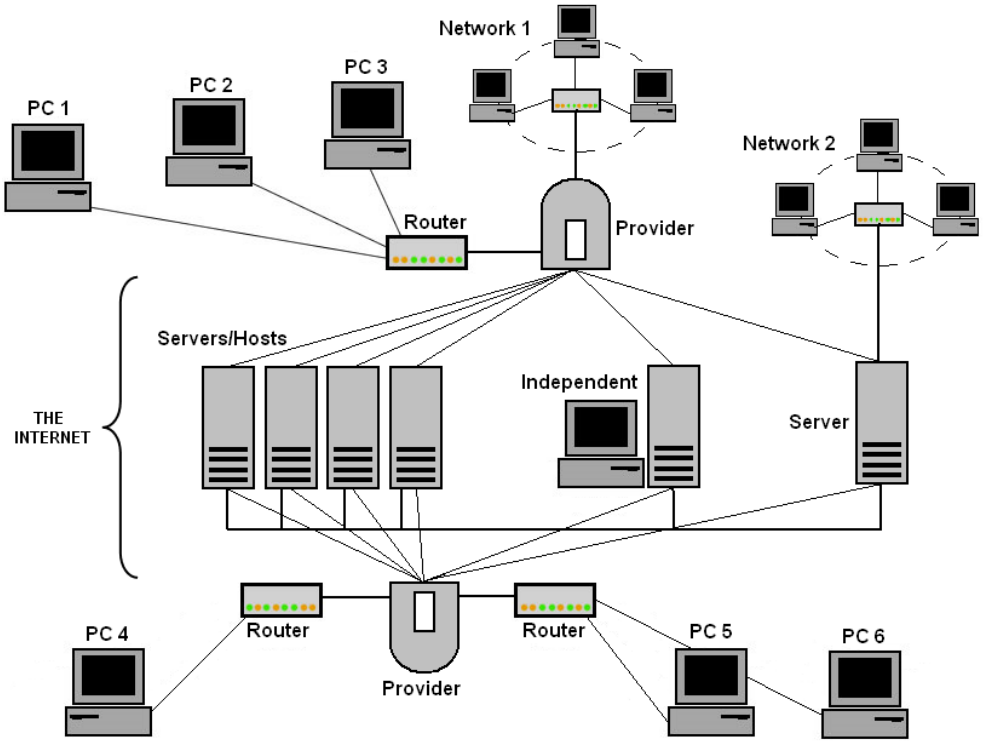
Items	Comments
Personal Computer / **Central Processing Unit** (**CPU**)	A machine that can execute computer programs. This broad definition can easily be applied to many early computers that existed long before the term "CPU" ever came into widespread usage.
Router	A computer whose software and hardware are usually tailored to the tasks of routing and forwarding information. Routers generally contain a specialized operating system, RAM, NVRAM, flash memory, and one or more processors, as well as two or more network interfaces.
An **Internet Service Provider** (ISP, also called Internet access provider or IAP)	A company which offers their customers access to the Internet. The ISP connects to its customers using a data transmission technology appropriate for delivering Internet Protocol datagrams, such as dial-up, DSL, cable modem or dedicated high-speed interconnects.
Internet Host	A hosting service is a service that runs Internet servers, allowing organizations and individuals to serve content to the Internet. There are various levels of service and various kinds of services offered. A common kind of hosting is web hosting. Most hosting providers offer a combined variety of services. Web hosting services also offer e-mail hosting service, for example. DNS hosting service is usually bundled with domain name registration.
Web Server	A computer program that is responsible for accepting HTTP requests from web clients, which are known as web browsers, and serving them HTTP responses along with optional data contents, which usually are web pages such as HTML documents and linked objects (images, etc.) or a computer that runs a computer program as described above.
Standalone servers (Independent Server)	Compilations of programs that run on a single PC, but emulates what the same set of programs will do when run on a server over the Internet. They usually contain a web server (such as the Apache HTTP Server), one or more languages, and one or more databases.

Examples



Notes

Terminology

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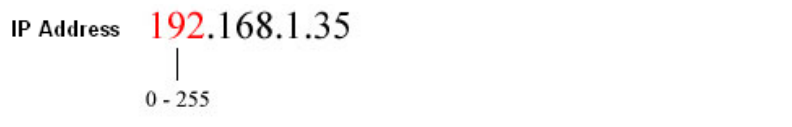
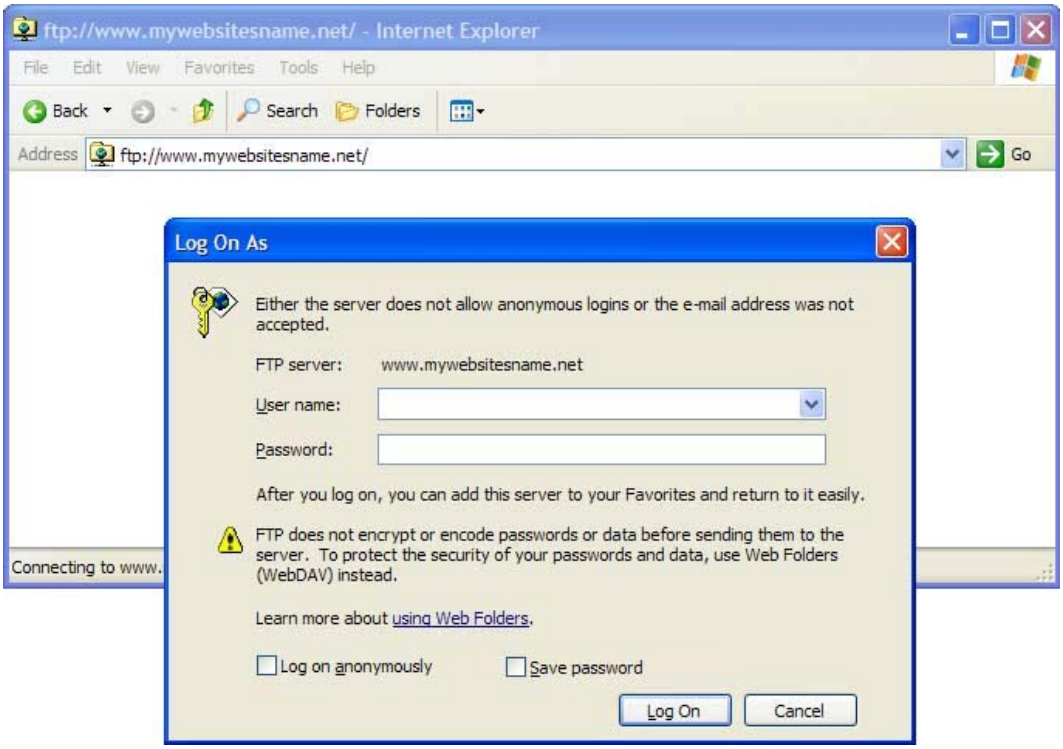
Items	Comments
The Internet Protocol Suite (TCP/IP)	A set of communications protocols used for the Internet and other similar networks. It is named from two of the most important protocols in it: the Transmission Control Protocol (TCP) and the Internet Protocol (IP), which were the first two networking protocols defined in this standard.
Internet Protocol Address (IP Address)	A numerical identification (logical address) that is assigned to devices participating in a computer network utilizing the Internet Protocol for communication between its nodes.
Hypertext Transfer Protocol (HTTP)	Is a communications protocol. Its use for retrieving inter-linked text documents (hypertext) led to the establishment of the World Wide Web. HTTP development was coordinated by the World Wide Web Consortium and the Internet Engineering Task Force (IETF).
HyperText Markup Language (HTML)	The predominant markup language for Web pages. It provides a means to describe the structure of text-based information in a document — by denoting certain text as links, headings, paragraphs, lists, and so on — and to supplement that text with interactive forms, embedded images, and other objects.
Web Browser	A software application which enables a user to display and interact with text, images, videos, music, games and other information typically located on a Web page at a website on the World Wide Web or a local area network. Web browsers format HTML information for display, so the appearance of a Web page may differ between browsers.
File Transfer Protocol (FTP)	A network protocol used to transfer data from one computer to another through a network such as the Internet. FTP is a file transfer protocol for exchanging and manipulating files over a TCP computer network. A FTP client may connect to a FTP server to manipulate files on that server.
The World Wide Web (Web)	A system of interlinked hypertext documents accessed via the Internet. With a Web browser, one can view Web pages that may contain text, images, and other multimedia and navigate between them using hyperlinks. The World Wide Web was created in 1989 by English scientist Tim Berners-Lee.

Examples


IP Address
192.168.1.35
0 - 255
1 1 0 0 0 0 0 0 . 1 0 1 0 1 0 0 0 . 0 0 0 0 0 0 0 1 . 0 0 1 0 0 0 1 1

Apple – Start
ftp://username:password@domain.com
CleverMedia
Art Reference
Penny Arcade!
Amazon
eBay
Yahoo!
Store
iPhone
iPod + iTunes
.Mac
Hot News
Get a Mac
Hardware
Software
Made4Mac
Education
Change the way you look at TV. tv.
Put some color on. iPo
Watch the


ftp://www.mywebsitesname.net/ - Internet Explorer
File Edit View Favorites Tools Help
Back
Search
Folders
Address
ftp://www.mywebsitesname.net/
Go
Log On As
Either the server does not allow anonymous logins or the e-mail address was not accepted.
FTP server: www.mywebsitesname.net
User name:
Password:
After you log on, you can add this server to your Favorites and return to it easily.
FTP does not encrypt or encode passwords or data before sending them to the server. To protect the security of your passwords and data, use Web Folders (WebDAV) instead.
Learn more about using Web Folders.
Log on anonymously
Save password
Log On
Cancel
Connecting to www.

Web Hosting

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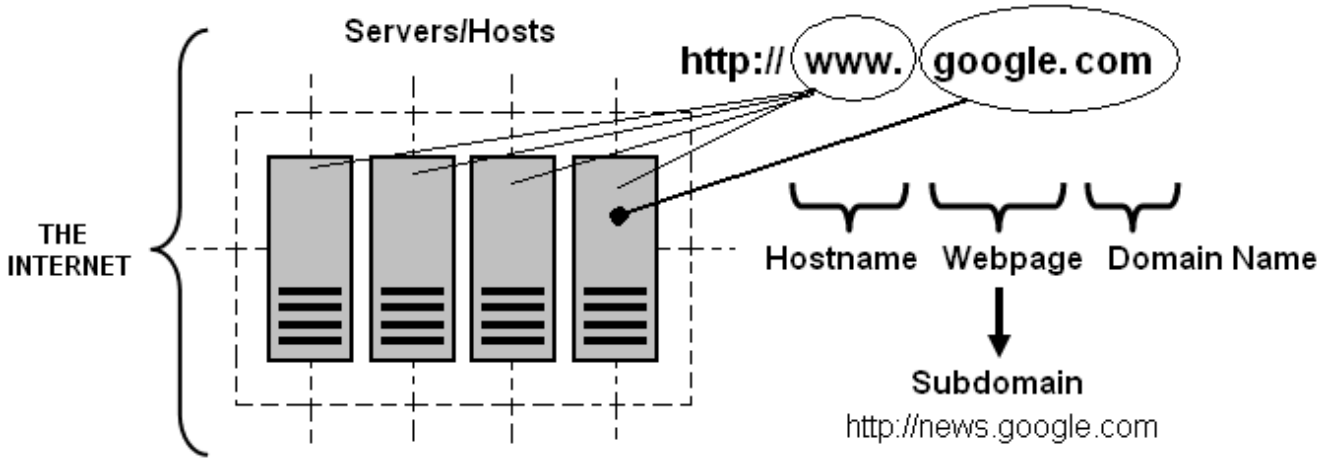
Items	Comments
The Internet	Is a global system of interconnected computer networks that interchange data by packet switching using the standardized Internet Protocol Suite (TCP/IP). It is a "network of networks" that consists of millions of private and public, academic, business, and government networks of local to global scope that are linked by copper wires, fiber-optic cables, wireless connections, and other technologies.
Hostname (or Sitename)	Is the unique name by which a network-attached device (which could consist of a computer, file server, network storage device, fax machine, copier, cable modem, etc.) is known on a network. The hostname is used to identify a particular host in various forms of electronic communication such as the World Wide Web, e-mail or Usenet.
Domain Name *.com –indicates a commercial site* *.net –stands for Network* *.biz –implies a business* *.org –organization* *.info –information* *.gov –denotes a governmental portal* *.edu –educational webpage* *.de, .pl. uk etc. –sites hosted in other countries (Germany, Poland, the UK)*	The most basic functionality of a domain name is to provide symbolic representations, i.e., recognizable names, to mostly numerically addressed Internet resources. This abstraction allows any resource (e.g., website) to be moved to a different physical location in the address topology of the network, globally or locally in an intranet, in effect changing the IP address. This translation from domain names to IP addresses (and vice versa) is accomplished with the global facilities of Domain Name System (DNS).
Subdomain	In the Domain Name System (DNS) hierarchy, a subdomain is a domain that is part of a larger domain.[1] For example, "mail.example.com" and "calendar.example.com" are subdomains of the "example.com" domain, which in turn is a subdomain of the "com" top-level domain (TLD).
Bandwidth	In computer networking and computer science, digital bandwidth or just bandwidth is the capacity for a given system to transfer data over a connection. It is measured as a bit rate expressed in bits/s or multiples of it (kbit/s Mbit/s etc.). Digital bandwidth should not be confused with the network throughput, which is the average rate of successful data transfer through a connection. It should also be distinguished from "data transfer", which is the quantity of data transferred over a given period of time.

Examples



Notes

Web Hosting

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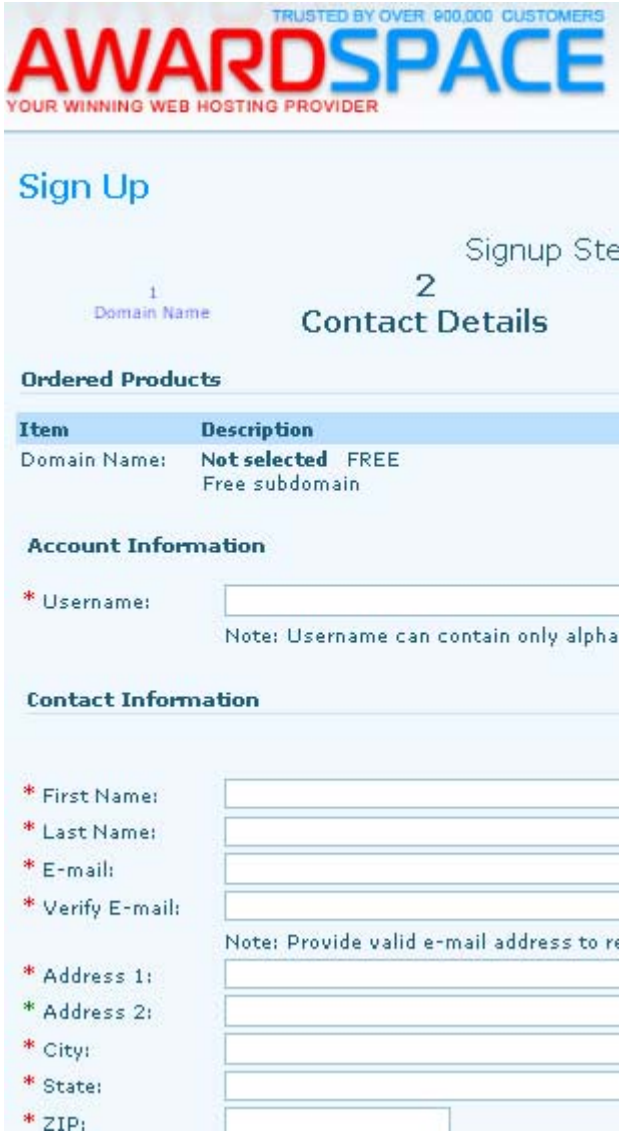
Items	Comments
http://www.100-best-free-webspace.com/ http://webhostinggeeks.com/ http://hosting-review.com/ http://www.hostcritique.net/ http://www.geocities.com http://www.netfirms.com	You should shop around for a host that suits you best. Most web space providers will have free minimum hosting options. You can start out by having a basic account and upgrade when you feel ready.
Go to → http://www.awardspace.com/ Username: _____ Password: _____ E-mail: _____	You will need to register with a host in order to have a place to which you can post your constructed HTML code.
[Register and check your e-mail. Post a subdomain. It will take about 5 minutes for it to activate.]	
Webpage Host: ***Account Manager*** This will contain account information, password management, account renewal and closure etc. ***Website Statistics*** This application will keep track of how many people visit your site, link to it, where people are from etc. ***E-mail Manager*** Accounts can provide e-mails which can then be managed and used through the providers webmail interface. ***Website Manager*** Under this manager you will find the domain, subdomain, FTP and file managers which will allow expansion of your webpage. ***Database Manager / phpMyAdmin*** Once you have forms that collect information you can create databases with tables to write those data into them.	Every web space provider/host will offer a different package to its clients. However, each provider will have a similar structural organization.

Examples



Notes

Assistant Software

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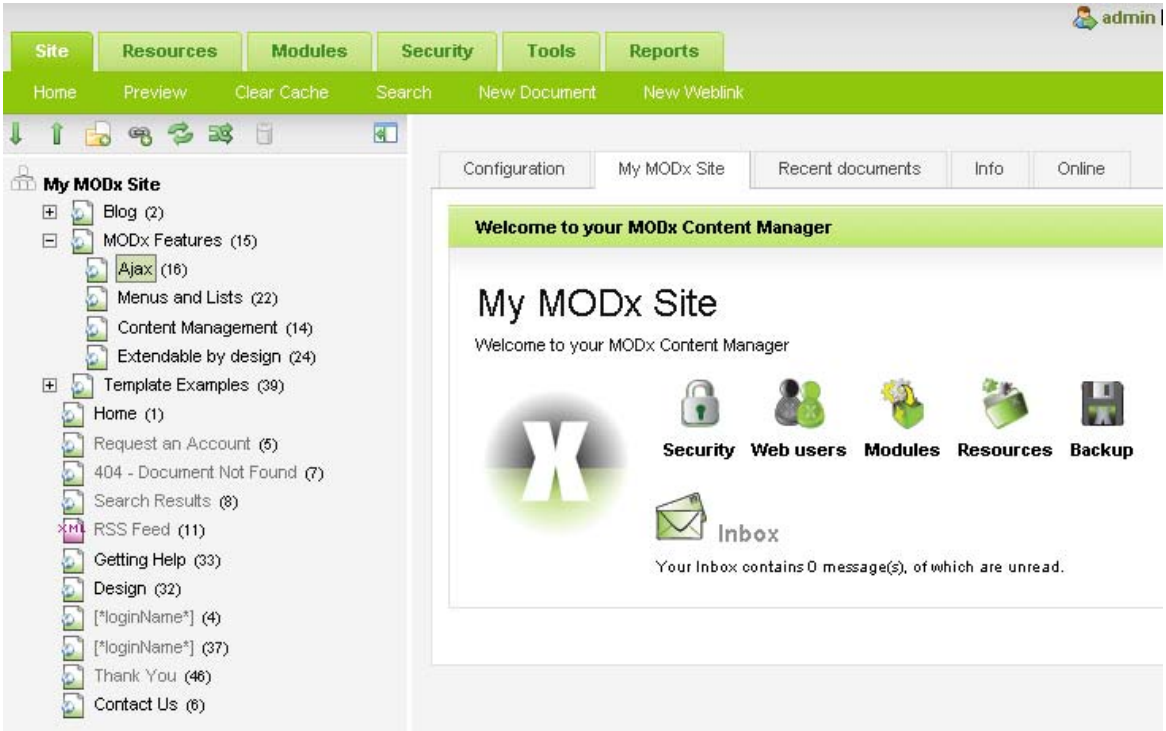
Items	Comments
Browsers: *Internet Explorer* *Safari* *Netscape/ Navigator (closed as of March 2008)* *Mozilla Firefox*	A good browser will allow you to check and evaluate your code. Keep in mind that different browsers will interpret your code differently. Therefore it is important to keep your code as standard as possible.
FTP Clients: *Microsoft Explorer FTP* *Safari FTP* *Firefox FreFTP*	File transfer protocols of individual browsers or as freestanding software applications (often bundled together with other software packages such as HTML editors or Webpage Builders) will allow you to upload your files efficiently.
Code Editors / Builders: *Notepad++* *PSPad* *Trellian* *SeaMonkey* *Dreamweaver*	Editor and building softwares make a programmer's life much easier by unifying coding standards and being able to interactively review one's progress.
CMS: *DokuWiki* *Wordpress* *Jaws* *Joomla* *ModX*	Content management systems are used to build and manage dynamic webpages. Dynamic webpages are best when numerous sites are needed with similar formats.
Miscellaneous / Other: Firefox Web Developer Adobe CS3 (Web and Design) Macromedia Flash	There is a multitude of assistant softwares, which allow for the construction of additional components (such as Flash objects, transitional screens etc.).

Examples

Planet Fedora - SeaMonkey
File Edit View Go Bookmarks Tools Window Help
Home Bookmarks Red Hat, Inc. Red Hat Net... Support
fedora planet
Inbox - SeaMonkey
File Edit View Go Message Tools Window
Get Msgs Compose Reply Reply All
Name
Local Folders
Inbox
Unsent Messages
Trash
View: All
Subject
Fedora Project - Composer
File Edit View Insert Format Table Tools Window Help
New Open Save Publish Browse Print Link
Heading 1
Fedora
7.
Reach
Higher.
Download Mirrors
Normal HTML Tags Source Preview
<body>   <h1> <a>


admin
Site Resources Modules Security Tools Reports
Home Preview Clear Cache Search New Document New Weblink
My MODx Site
Blog (2)
MODx Features (15)
Ajax (16)
Menus and Lists (22)
Content Management (14)
Extendable by design (24)
Template Examples (39)
Home (1)
Request an Account (5)
404 - Document Not Found (7)
Search Results (8)
RSS Feed (11)
Getting Help (33)
Design (32)
[*loginName*] (4)
[*loginName*] (37)
Thank You (46)
Contact Us (6)
Configuration My MODx Site Recent documents Info Online
Welcome to your MODx Content Manager
My MODx Site
Welcome to your MODx Content Manager
Security Web users Modules Resources Backup
Inbox
Your Inbox contains 0 message(s), of which are unread.

HTML: Part I - Structure

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Items	Comments
<html> </html>	Everything that is specified in a HTML script is included between the HTML tag.
<title> </title>	The main title of your webpage.
<! Comment text … >	Used to insert annotations into your script.
<head> </head>	This is the page information tag. All items regarding the page's functionality, formatting and external scripts go into it.
<body> </body>	All of the content of a webpage is contained
Document structure: <q> </q> <blockquote> </blockquote> or 	Structure tags allow you to format your webpage content into what you would like it to appear on the webpage. These traditional tags are used to specifically format text in your webpage body.

HTML SCRIPT NO. 1

```
<html>
<title>This is my new webpage</title>
<head></head>
<body bgcolor=#CCFF99>
<font face="Arial" size=3>
<center> <h1>Welcome to my page</h1>
<strong><em>Find out more about me here</em></strong><br/>
<br/>
<p>This paragraph should tell you a little something about me. How about a quote:<p>
<q>Common sense is not so common.</q><br/>
<em>- Voltaire</em><br/>
<br/>
You can also create formulas such as H<sub>2</sub>O or mathematical expressions such
as 2<sup>3</sup> = 8. <br/>
Also, I'd like to share some personal information:<br/>
<br/></center>
My top favorite desserts:<br/>
<ol><li>Cheesecake</li>
<li>Brownies</li>
<li>Nutella</li></ol></font>
</body>
</html>
```

Examples

Welcome to my page

Find out more about me here

This paragraph should tell you a little something about me. How about a quote:

"Common sense is not so common."
- Voltaire

You can also create formulas such as H_2O or mathematical expressions such as $2^3 = 8$.
Also, I'd like to share some personal information:

My top favorite desserts:

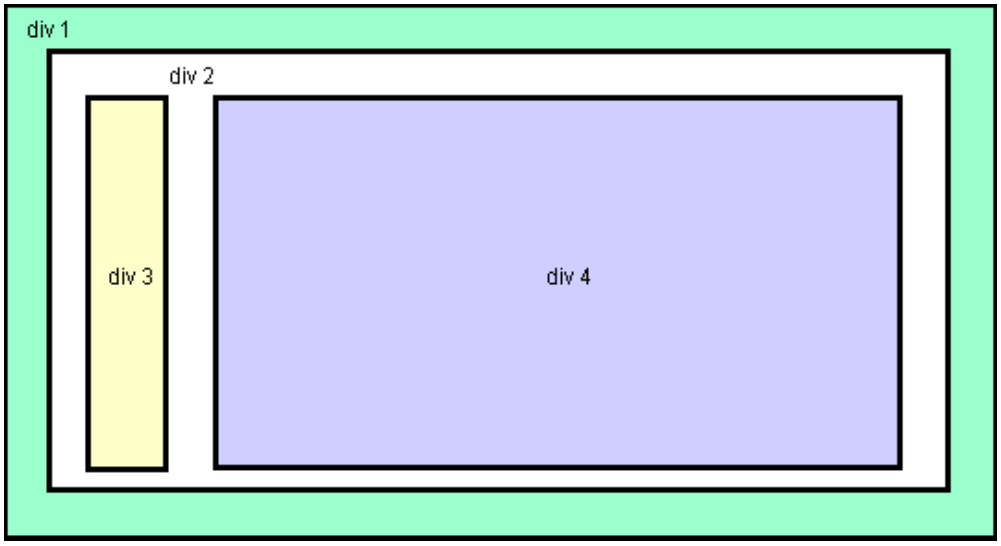
1. Cheesecake
2. Brownies
3. Nutella

Notes

Webpage Code Organization

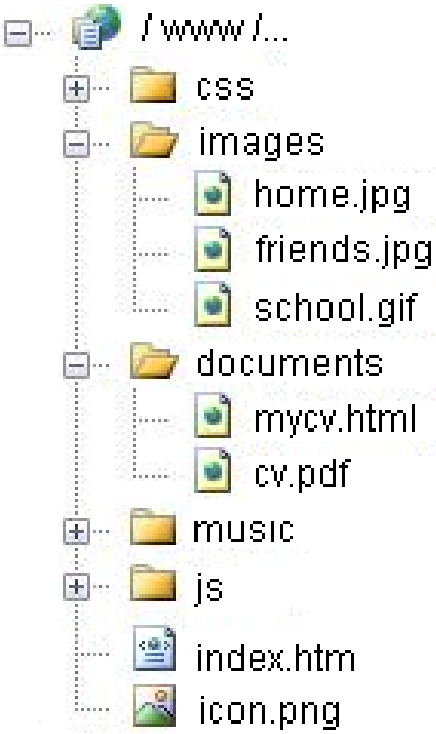
FCAP Workshop

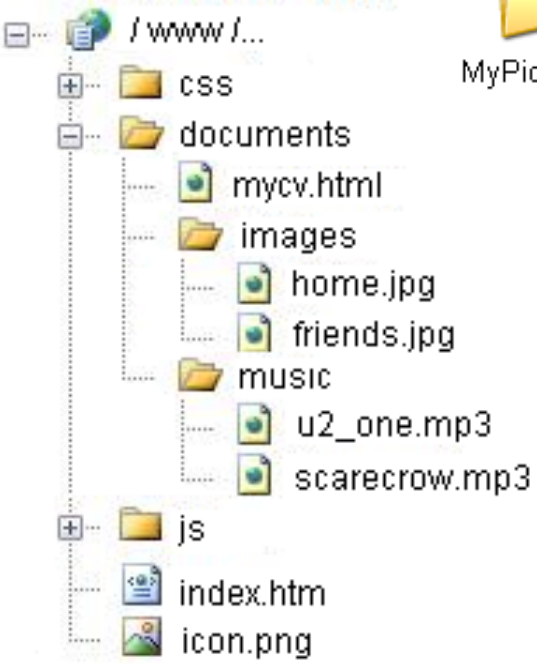
Items	Comments
http://www.w3c.org/	The World Wide Web Consortium has attempted to standardize the usage of HTML.
<!DOCTYPE> <html> </html> <head> <title> </title> <meta> </meta> <link> </link>	Embedding meta tags in an HTML script allows for browsers and search engines to locate, identify and catalog your website, which makes finding it much easier.
<frameset> <frameset> <frame> </frameset> </frameset>	DO NOT USE! These were functional in old HTML scripts and webpage formats.
          	Div elements divide the web page into the desired sections (see below).

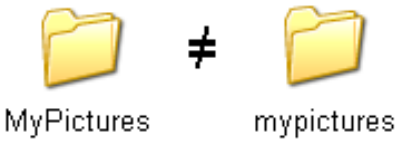


Examples

Vacation.jpg ≠ vacation.JPG ≠ vacation.jpg







Files will seek other files from their saved location

Notes

CSS

FCAP Workshop

Items	Comments
<link rel="stylesheet" type="text/css" href="css/mainscript.css" media="screen"/>	The link tag included in the HTML script will point to a specific CSS script that is a collection of all of the styles used in the specific webpage.
/*** Annotate all of your CSS specifications ***/	
body, html { margin: ; padding: ; background: ###### url(../images/…) repeat; font-family: ; }	CSS allows you to specify a style for every possible element you'd like to use in your webpage. By specifying different parameters you will not have to type style specifications in your HTML script. This way you can use the same format with other pages.
img{ border: ; }	
a{ font-size: ; font-family: ; … }	
h1{ font-size: ; font-family: ; … }	
p.general{ text-indent: ; font-size: ; font-family: ; font-style: ; }	By following an attribute with a period you can specify several classes for the same type of parameter. This way you can use different styles for the same type of object (such as different hyperlink styles etc.).
p.blog{ font-size: ; … }	
/*** Every specified div can have it's own CSS parameters ***/	
#general{ margin: ; width: ; }	CSS also allows you to specify different body styles for different div sections of your webpage. For instance you could specify a look for the menu section and another for the main body part.
#second{ height: ; }	
#...{ margin: ; margin-top: ; padding: ; width: ; border: ; background: ; text-align: ; }	

Examples

Notes

CSS SCRIPT NO. 1

```
/*** general body formats ***/
body, html {
  margin:0;
  padding:0;
  background:#ffffff  url(../images/dark_flowers_tile.jpg) repeat;
  font-family:Arial Narrow, Verdana, sans serif;
  color: black; }

h1{
  font-family:Comic Sans MS, Verdana, sans serif;
  font-size:25px;
  font-style:strong;
  color: black; }

ul{
  text-align:left; }

/*** div formats ***/
#main{
  position:absolute;
  margin-top:5%;
  margin-left:10%;
  margin-right:10%;
  width:80%;
  height:80%;
  border:5px solid #000000;
  background:#ffffff;
  clear:both; }

#left{
  float:left;
  margin:3px;
  width:20%;
  height:98%;
  text-align:center;
  border-right:2px solid #000000;
  background:#ffffff; }

#right{
  float:right;
  margin:3px;
  padding:0px;
  width:75%;
  height:90%;
  text-align:left;
  background:#ffffff; }
```

HTML SCRIPT NO. 2

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://psychometrics.awardspace.com" xml:lang="en-US" lang="en-US">
<head>
<title>Psychometric Applications</title>
<!-- meta information of single pages -->
<meta http-equiv="content-type" content="text/html; charset=utf-8" />
<meta name="generator" content="PSPad editor, www.pspad.com" />
<meta name="keywords" content="psychometrics, statistics, mathematics" />
<meta name="description" content="New psychometric application" />
<!-- including external documents like css, javascript etc -->
<link rel="stylesheet" type="text/css" href="css/allstyles.css" media="screen"/>
<link rel="stylesheet" type="text/css" href="css/allstyles.css" media="print"/>
</head>

<body>
<!-- define div boxes -->
<div id="main">
  <div id="left">
      <h1>Content</h1>
      <ul><li>Pictures</li>
      <li>Documents</li>
      <li>Music</li></ul>
  </div>
  <div id="right">
      <h1>Welcome to my page:</h1>
      I am very glad that you have decided to visit my page. Here you will find
      many interesting things about me such as my resume, family tree, ...<br />
      <br />
      And now we should turn to creating and adding more content.
  </div>
</div>
</body>

</html>
```

Examples

Items	Comments
[Let's upload our new webpage to the internet using a FTP (such as fireFTP)] [Using the PSPad FTP we can now interactively change the scripts online]	The link tag included in the HTML script will point to a specific CSS script that is a collection of all of the styles used in the specific webpage.

CSS

```
body, html{
background:url(../images/paper_tile.jpg)  }

img{
  border:2px solid #000000;
  width:50%;
  height:65%; }

#main{
  margin-left:0%;
  margin-right:0%;
  width:100%
  border-top:3px solid #000000;
  border-bottom:3px solid #000000; }
```

Make these style additions/changes to the allstyles.css script in order to alter/modify the look of your webpage.

HTML

```
<div id="left">
  <li>
  <a href="http://www.google.com>Google</a>
  </li>

<div id="right">
  <img src="images/Fordham_1937.jpg">
```

Add these two elements to your HTML script (one is a link to google the other an image you uploaded to the server earlier).

CSS SCRIPT NO. 2

```
body, html {
  margin:0;
  padding:0;
  background:#ffffff  url(../images/double_ornate_border.gif) repeat-y;
  background-position:center center;
  font-family:Arial Narrow, Verdana, sans serif;
  color: black; }

h1{
  font-family:Comic Sans MS, Verdana, sans serif;
  font-size:25px;
  font-style:strong;
  color: black; }

img{
  border:2px solid #000000;
  width:30%;
  height:55%; }
```

Examples

Content

- Pictures
- Documents
- Music
- Google

Welcome to my page:

I am very glad that you have decided to visit my page. Here you will find many interesting things about me such as my resume, family tree, ...

Notes

Items	Comments
<a> <img /> <table> </table> <tr> </tr> <td> </td>	The majority of webpage content is managed by fairly straightforward HTML tags. Most designs can be achieved using tables instead of div elements (while remembering that div elements are the current programming preference table usage is much easier).

HTML SCRIPT NO. 3

```
<html>
<title>My Pictures</title>
<head>
<!-- including external documents like css, javascript etc -->
<link rel="stylesheet" type="text/css" href="css/picturestyles.css" media="screen"/>
</head>

<body>

<center><h1> My Favorite Pictures</h1>

<table align="center" border="1">
<tr><td colspan="3" align="center">
<font size="+2"><b>My collection of pictures</b></font></td></tr>
<tr><td><b>Collection</b></td>
<td><b>Picture</b></td>
<td><b>Note</b></td></tr>
<tr><td rowspan="2">Posted</td>
<td>Whoopi Goldberg</td>
<td>"Ghost", "Sister Act"</td>
<tr><td>Albert Einstein</td>
<td>"E=MC<sup>2</sup>"</td></tr></tr>
<tr><td>Missing</td>
<td>William Shakespeare</td>
<td bgcolor=#FFCC33>"Macbeth"</td></tr>
</table><br />
<br />

<a href="http://en.wikipedia.org/wiki/Whoopi_Goldberg">
<img src="images/goldberg.jpg" /></a><br />
Whoopi Golberg<br />
<br />

<a href="http://en.wikipedia.org/wiki/Einstein">
<img src="images/einstein.jpg" /></a><br />
Albert Einstein<br />
<br /></center>>

</body>
</html>
```

Examples

My Favorite Pictures

My collection of pictures		
Collection	**Picture**	**Note**
Posted	Whoopi Goldberg	"Ghost", "Sister Act"
	Albert Einstein	"E=MC^2"
Missing	William Shakespeare	"Macbeth"

Notes

Items	Comments
	[Create another webpage using Trellian]

HTML SCRIPT NO. 4

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0
Transitional//EN">
<HTML>
<HEAD>
<TITLE>My Java Page</TITLE>
```

Trellian, much like any webpage developer (webpage builder), allows you to use an interactive step-by-step construction. This way you can produce all the needed tags without having to type them.

```
<SCRIPT src="time_jsonly.js"
type=text/javascript></SCRIPT>
<SCRIPT src="mailto_validation_jsonly.js"
type=text/javascript></SCRIPT>
```

Just like with external css scripts you can embed JavaScripts (.js) into the document without having to write out the code.

```
<META http-equiv=Content-Type content="text/html;
charset=utf-8">
<STYLE type=text/css>BODY {
FONT-SIZE: 12px; BACKGROUND-IMAGE:
url(images/floral_tile.gif); COLOR: #ffffff;
BACKGROUND-REPEAT: repeat; FONT-FAMILY:
verdana, arial, sans-serif; BACKGROUND-COLOR:
#ffffff}

A {FONT-SIZE: 12px; FONT-FAMILY: Arial}

[…]
```

Construct your page using the easy Trellian builder tools to your liking.

```
<BODY onload=startclock()>

[…]
```

Some JavaScripts require onload commands

```
<CENTER>Time:</CENTER>
<FORM name=clock>
<INPUT size=11 name=face>
</FORM></CENTER><BR>

<CENTER>
<FORM name=form onsubmit="return validate_form()"
action="mailto:YOUR EMAIL ADDRESS
?SUBJECT=YOUR SUBJECT" method=post
encType=text/plain>
Name:<BR><INPUT size=50 name=NAME><BR>
Email:<BR><INPUT size=50 name=EMAIL><BR>
URL:<BR><INPUT size=50 name=URL><BR>
Description:<BR><TEXTAREA name=DESCRIPTION
rows=8 wrap=virtual cols=50></TEXTAREA><BR>
<INPUT type=submit value=Submit name=submit>
<INPUT type=reset value=Reset></FORM>
</CENTER>

</BODY>
</HTML>
```

JavaScripts consist of two components: The script and the actual body component. The script processes the function and the body component produces the interactive part.

Examples

Notes

Multimedia: More with Images, Sound and Video

FCAP Workshop

Items	Comments
`<link rel="icon" href="images/favicon.ico" type="image/x-icon">` `<link rel="shortcut icon" href="images/favicon.ico" type="image/x-icon">`	Many webpages include a favicon, which is an icon used in the address bar of your browser as well as in bookmark menus.

`<img src="trees.gif" usemap="#green" border="0">`
`<map name="green">`
`<area`
`shape="polygon" coords="19,44,45 "`
`href="http://www.trees.com/save.html">`
`<area shape="rect" coords="128,132"`
`href="http://www.trees.com/furniture.html">`
`<area shape="circle" coords="68,211"`
`href="http://www.trees.com/plantations.html">`
`</map>`
 	
[href="#SectionTwo"]
[mailto use href="mailto:george@trees.com]
	Any image can have an image map constructed for it. An image map gives the pixel coordinates in that picture outlining an area which is to be used as a link. This allows you to click a picture in your designated area and link to anything you wish.

`<img dynsrc="video.avi" />`	Microsoft Internet Explorer will recognize an imbedded video from an <img> tag.

`<bgsound src="xfiles.mid" loop=5>`
id=
src=
volume=
loop=
title
 	
`<embed src="eureka.wav" controller="true"`
`autoplay="true" autostart="true" type="audio/wav" />`
src=
controls=
controller=
width= and height=
volume=
href= and target=
 	
`<embed src="video.avi" />`
 	
`<object>`
`<param name="autostart" value="true">`
`<param name="src" value="eureka.wav">`
`<param name="autoplay" value="true">`
`<param name="controller" value="true">`
`<embed src="eureka.wav" controller="true"`
`autoplay="true" autostart="true" type="audio/wav" />`
`</object>`
 	
`<object data="video.avi" type="video/avi" />`
	Embedding sound and video is not easy. There are as of current no standardized forms to include sound, music or videos into your webpage. The most common solution, so as to guarantee that your media will function is to install and run the respective multimedia player on the page.

Examples

The <embed> Tag

Validation Note:

The technique below of using the <embed> tag is not really the best way of doing things. This tag is not part of any official specification, so **your page will not validate if you use <embed>**. It is certainly the easiest method, but since this was written a number of techniques have been designed to allow valid multimedia embedding.

You should read the rest of this page, as it contains advice on how best to present multimedia content. However, before you implement your page, you should also have a look at **Flash Satay** and **standards compliant Quicktime embedding**. On with the show...

<embed> is the tag you'll use to add the multimedia aspects to your page. Here's an example and the code in action:

Yeah, now we're grooving! I love this song (incidentally, this track is oft mistaken for being the music from the infamous » GoldenEye deathmatch level *Citadel*. For the

Notes

Items	Comments
MySQL	A popular for web applications and acts as the database component of the LAMP, BAMP, MAMP, and WAMP platforms and for open-source bug tracking tools like Bugzilla. Its popularity for use with web applications is closely tied to the popularity of PHP and Ruby on Rails, which are often combined with MySQL. PHP and MySQL are essential components for running popular content management systems. MySQL is a relational database management system (RDBMS) which has more than 11 million installations. The program runs as a server providing multi-user access to a number of databases. MySQL is owned and sponsored by a single for-profit firm, the Swedish company MySQL AB, now a subsidiary of Sun Microsystems, which holds the copyright to most of the codebase. The project's source code is available under terms of the GNU General Public License, as well as under a variety of proprietary agreements.
PHP	A scripting language originally designed for producing dynamic web pages. It has evolved to include a command line interface capability and can be used in standalone graphical applications. PHP is a widely-used general-purpose scripting language that is especially suited for web development and can be embedded into HTML. It generally runs on a web server, taking PHP code as its input and creating web pages as output. It can be deployed on most web servers and on almost every operating system and platform free of charge.
CGI	The Common Gateway Interface (CGI) is a standard protocol for interfacing external application software with an information server, commonly a web server.
Perl	In computer programming, Perl is a high-level, general-purpose, interpreted, dynamic programming language. Perl borrows features from other programming languages including C, shell scripting (sh), AWK, sed and Lisp. The language provides powerful text processing facilities without the arbitrary data length limits of many contemporary Unix tools, facilitating easy manipulation of text files. It is also used for graphics programming, system administration, network programming, applications that require database access and CGI programming on the Web. Perl is nicknamed "the Swiss Army chainsaw of programming languages" due to its flexibility and adaptability.[5]

Examples

Notes

Appendix A

<html>

Document Outline

<!DOCTYPE>	Version of (X)HTML
<html>	HTML document
<head>	Page information
<body>	Page contents

Comments

<!-- Comment Text -->

Page Information

<base />	Base URL
<meta />	Meta data
<title>	Title
<link />	Relevant resource
<style>	Style resource
<script>	Script resource

Document Structure

<h[1-6]>	Heading
	Page section
	Inline section
<p>	Paragraph
 	Line break
<hr />	Horizontal rule

Links

<a href="">	Page link
<a href="mailto:">	Email link
<a name="name">	Anchor
<a href="#name">	Link to anchor

Text Markup

	Strong emphasis
	Emphasis
<blockquote>	Long quotation
<q>	Short quotation
<abbr>	Abbreviation
<acronym>	Acronym
<address>	Address
<pre>	Pre-formatted text
<dfn>	Definition
<code>	Code
<cite>	Citation
<del>	Deleted text
<ins>	Inserted text
<sub>	Subscript
<sup>	Superscript
<bdo>	Text direction

Lists

	Ordered list
	Unordered list
	List item
<dl>	Definition list
<dt>	Definition term
<dd>	Term description

Forms

<form>	Form
<fieldset>	Collection of fields
<legend>	Form legend
<label>	Input label
<input />	Form input
<select>	Drop-down box
<optgroup>	Group of options
<option>	Drop-down options
<textarea>	Large text input
<button>	Button

Tables

<table>	Table
<caption>	Caption
<thead>	Table header
<tbody>	Table body
<tfoot>	Table footer
<colgroup>	Column group
<col />	Column
<tr>	Table row
<th>	Header cell
<td>	Table cell

Images and Image Maps

<img />	Image
<map>	Image Map
<area />	Area of Image Map

Common Character Entities

"	"	Quotation mark
&	&	Ampersand
<	<	Less than
>	>	Greater than
@	@	"At" symbol
€	€	Euro
•	•	Small bullet
™	™	Trademark
£	£	Pound
		Non-breaking space
©	©	Copyright symbol

Objects

<object>	Object
<param />	Parameter

Empty Elements

<area />	<img />
<base />	<input />
 	<link />
<col />	<meta />
<hr />	<param />

Core Attributes

class	style
id	title

Note: Core Attributes may not be used in base, head, html, meta, param, script, style or title elements.

Language Attributes

dir	lang

Note: Language Attributes may not be used in base, br, frame, frameset, hr, iframe, param or script elements.

Keyboard Attributes

accesskey	tabindex

Window Events

onLoad	onUnload

Form Events

onBlur	onReset
onChange	onSelect
onFocus	onSubmit

Keyboard Events

onKeydown	onKeyup
onKeypress	

Mouse Events

onClick	onMouseout
onDblclick	onMouseover
onMousedown	onMouseup
onMousemove	

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Appendix B

html character entities

CHARACTERS		
		Space
!	!	Exclamation mark
"	"	Quotation mark
#	#	Pound symbol
$	$	Dollar sign
%	%	Percent sign
&	&	Ampersand
'	`	Apostrophe
(	(	Opening bracket
)	)	Closing bracket
*	*	Asterisk
+	+	Plus
,	,	Comma
-	-	Hyphen
.	.	Period
/	/	Forward slash
0	0	Zero
1	1	One
2	2	Two
3	3	Three
4	4	Four
5	5	Five
6	6	Six
7	7	Seven
8	8	Eight
9	9	Nine
:	:	Colon
;	;	Semicolon
<	<	Less than
=	=	Equals sign
>	>	Greater than
?	?	Question mark
@	@	"At" symbol
A	A	Upper case A
B	B	Upper case B
C	C	Upper case C
D	D	Upper case D
E	E	Upper case E
F	F	Upper case F
G	G	Upper case G
H	H	Upper case H
I	I	Upper case I
J	J	Upper case J
K	K	Upper case K
L	L	Upper case L
M	M	Upper case M
N	N	Upper case N
O	O	Upper case O
P	P	Upper case P

CHARACTERS		
Q	Q	Upper case Q
R	R	Upper case R
S	S	Upper case S
T	T	Upper case T
U	U	Upper case U
V	V	Upper case V
W	W	Upper case W
X	X	Upper case X
Y	Y	Upper case Y
Z	Z	Upper case Z
[	[	Opening square bracket
\	\	Backslash
]	]	Closing square bracket
^	^	Caret
_	_	Underscore
`	`	Single quote
a	a	Lower case a
b	b	Lower case b
c	c	Lower case c
d	d	Lower case d
e	e	Lower case e
f	f	Lower case f
g	g	Lower case g
h	h	Lower case h
i	i	Lower case i
j	j	Lower case j
k	k	Lower case k
l	l	Lower case l
m	m	Lower case m
n	n	Lower case n
o	o	Lower case o
p	p	Lower case p
q	q	Lower case q
r	r	Lower case r
s	s	Lower case s
t	t	Lower case t
u	u	Lower case u
v	v	Lower case v
w	w	Lower case w
x	x	Lower case x
y	y	Lower case y
z	z	Lower case z
{	{	Opening curly brace
		|	Vertical line
}	}	Closing curly brace
~	~	Tilde
&#127;		Delete

CHARACTERS		
		Non-breaking space
¡	¡	Inverted exclamation mark
¢	¢	Cent symbol
£	£	Pound symbol
¤	¤	Currency symbol
¥	¥	Yen symbol
¦	¦	Broken vertical bar
§	§	Section symbol
¨	¨	Umlaut
©	©	Copyright
ª	ª	Feminine ordinal
«	«	Double-left arrow
¬	¬	"Not" symbol
		Soft hyphen
®	®	Registered
¯	¯	Overline
°	°	Degree symbol
±	±	Plus-or-minus
²	²	Squared
³	³	Cubed
´	´	Acute accent
µ	µ	Micro symbol
¶	¶	Paragraph symbol
·	·	Middle dot
¸	¸	Cedilla
¹	¹	Superscript "1"
º	º	Masculine ordinal
»	»	Double-right arrow
¼	¼	One quarter
½	½	One half
¾	¾	Three quarters
¿	¿	Inverted question mark
À	À	A with grave
Á	Á	A with acute
Â	Â	A with circumflex
Ã	Ã	A with tilde
Ä	Ä	A with umlaut
Å	Å	A with ring
Æ	Æ	AE
Ç	Ç	C with cedilla
È	È	E with grave
É	É	E with acute
Ê	Ê	E with circumflex
Ë	Ë	E with umlaut
Ì	Ì	I with grave
Í	Í	I with acute
Î	Î	I with circumflex

CHARACTERS		
Ï	Ï	I with umlaut
Ð	Ð	ETH
Ñ	Ñ	N with tilde
Ò	Ò	O with grave
Ó	Ó	O with acute
Ô	Ô	O with circumflex
Õ	Õ	O with tilde
Ö	Ö	O with umlaut
×	×	Multiply symbol
Ø	Ø	O with slash
Ù	Ù	U with grave
Ú	Ú	U with acute
Û	Û	U with circumflex
Ü	Ü	U with umlaut
Ý	Ý	Y with acute
Þ	Þ	THORN
ß	ß	Sharp S
à	à	A with grave
á	á	A with acute
â	â	A with circumflex
ã	ã	A with tilde
ä	ä	A with umlaut
å	å	A with ring
æ	æ	AE
ç	ç	C with cedilla
è	è	E with grave
é	é	E with acute
ê	ê	E with circumflex
ë	ë	E with umlaut
ì	ì	I with grave
í	í	I with acute
î	î	I with circumflex
ï	ï	I with umlaut
ð	ð	ETH
ñ	ñ	N with tilde
ò	ò	O with grave
ó	ó	O with acute
ô	ô	O with circumflex
õ	õ	O with tilde
ö	ö	O with umlaut
÷	÷	Divide symbol
ø	ø	O with slash
ù	ù	U with grave
ú	ú	U with acute
û	û	U with circumflex
ü	ü	U with umlaut
ý	ý	Y with acute
þ	þ	THORN
ÿ	ÿ	Y with umlaut

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Appendix C

Selectors

*	All elements
div	
div *	All elements within
div span	within
div, span	and
div > span	with parent
div + span	preceded by
.class	Elements of class "class"
div.class	of class "class"
#itemid	Element with id "itemid"
div#itemid	with id "itemid"
a[attr]	<a> with attribute "attr"
a[attr='x']	<a> when "attr" is "x"
a[class~='x']	<a> when class is a list containing 'x'
a[lang|='en']	<a> when lang begins "en"

Pseudo-Selectors and Pseudo-Classes

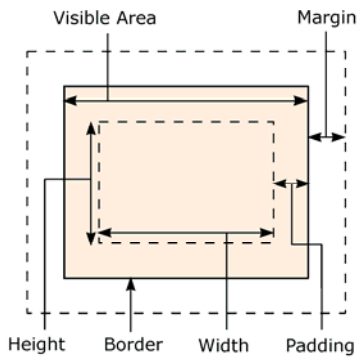
:first-child	First child element
:first-line	First line of element
:first-letter	First letter of element
:hover	Element with mouse over
:active	Active element
:focus	Element with focus
:link	Unvisited links
:visited	Visited links
:lang(var)	Element with language "var"
:before	Before element
:after	After element

Sizes and Colours

0	0 requires no unit
Relative Sizes	
em	1em equal to font size of parent (same as 100%)
ex	Height of lower case "x"
%	Percentage
Absolute Sizes	
px	Pixels
cm	Centimeters
mm	Millimeters
in	Inches
pt	1pt = 1/72in
pc	1pc = 12pt
Colours	
#789abc	RGB Hex Notation
#acf	Equates to "#aaccff"
rgb(0,25,50)	Value of each of red, green, and blue. 0 to 255, may be swapped for percentages.

Note Shorthand properties are marked x
Properties that inherit are marked +

Box Model



Positioning

display	clear
position	z-index
top	direction +
right	unicode-bidi
bottom	overflow
left	clip
float	visibility

Dimensions

width	min-height
min-width	max-height
max-width	vertical-align
height	

Color / Background

color +	background-repeat
background x	background-image
background-color	background-position
background-attachment	

Text

text-indent +	word-spacing +
text-align +	text-transform +
text-decoration	white-space +
text-shadow	line-height +
letter-spacing +	

Fonts

font + x	font-weight +
font-family +	font-stretch +
font-style +	font-size +
font-variant +	font-size-adjust +

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Boxes

margin x	border-color x
margin-top	border-top-color
margin-right	border-right-color
margin-bottom	border-bottom-color
margin-left	border-left-color
padding x	border-style x
padding-top	border-top-style
padding-right	border-right-style
padding-bottom	border-bottom-style
padding-left	border-left-style
border x	border-width x
border-top x	border-top-width
border-bottom x	border-right-width
border-right x	border-bottom-width
border-left x	border-left-width

Tables

caption-side +	border-spacing +
table-layout	empty-cells +
border-collapse +	speak-header +

Paging

size	page-break-inside +
marks	page +
page-break-before	orphans +
page-break-after	widows +

Interface

cursor +	outline-style
outline x	outline-color
outline-width	

Aural

volume +	elevation
speak +	speech-rate
pause x	voice-family
pause-before	pitch
pause-after	pitch-range
cue x	stress
cue-before	richness
cue-after	speak-punctuation
play-during	speak-numeral
azimuth +	

Miscellaneous

content	list-style-type +
quotes +	list-style-image +
counter-reset	list-style-position +
counter-increment	marker-offset
list-style + x	

Appendix D

Methods

Object
toString
toLocaleString
valueOf
hasOwnProperty
isPrototypeOf
propertyIsEnumerable

String
charAt
charCodeAt
fromCharCode
concat
indexOf
lastIndexOf
localeCompare
match
replace
search
slice
split
substring
substr
toLowerCase
toUpperCase
toLocaleLowerCase
toLocaleUpperCase

RegEx
test
match
exec

Array
concat
join
push
pop
reverse
shift
slice
sort
splice
unshift

Number
toFixed
toExponential
toPrecision

Date
parse
toDateString
toTimeString
getDate
getDay
getFullYear
getHours
getMilliseconds
getMinutes
getMonth
getSeconds
getTime
getTimezoneOffset
getYear
setDate
setHours
setMilliseconds
setMinutes
setMonth
setSeconds
setYear
toLocaleTimeString

JavaScript

XMLHttpRequest

Safari, Mozilla, Opera:

```
var req = new XMLHttpRequest();
```

Internet Explorer:

```
var req = new
ActiveXObject("Microsoft.XMLHTTP");
```

XMLHttpRequest Object Methods

abort()
getAllResponseHeaders()
getResponseHeader(header)
open(method, URL)
send(body)
setRequestHeader(header, value)

XMLHttpRequest Object Properties

onreadystatechange
readyState
responseText
responseXML
status
statusText

XMLHttpRequest readyState Values

0	Uninitiated
1	Loading
2	Loaded
3	Interactive
4	Complete

JAVASCRIPT IN HTML

External JavaScript File

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

Inline JavaScript

```
<script type="text/javascript">
  <!--
     // JavaScript Here
  //-->
</script>
```

Functions

Window
alert
blur
clearTimeout
close
focus
open
print
setTimeout

Built In
eval
parseInt
parseFloat
isNaN
isFinite
decodeURI
decodeURIComponent
encodeURI
encodeURIComponent
escape
unescape

REGULAR EXPRESSIONS - FORMAT

Regular expressions in JavaScript take the form:

var RegEx = **/pattern/modifiers**;

REGULAR EXPRESSIONS - MODIFIERS

/g	Global matching
/i	Case insensitive
/s	Single line mode
/m	Multi line mode

REGULAR EXPRESSIONS - PATTERNS

^	Start of string
$	End of string
.	Any single character
(a|b)	a or b
(...)	Group section
[abc]	Item in range (a or b or c)
[^abc]	Not in range (not a or b or c)
a?	Zero or one of a
a*	Zero or more of a
a+	One or more of a
a{3}	Exactly 3 of a
a{3,}	3 or more of a
a{3,6}	Between 3 and 6 of a
!(pattern)	"Not" prefix. Apply rule when URL does not match pattern.

EVENT HANDLERS

onAbort	onMouseDown
onBlur	onMouseMove
onChange	onMouseOut
onClick	onMouseOver
onDblClick	onMouseUp
onDragDrop	onMove
onError	onReset
onFocus	onResize
onKeyDown	onSelect
onKeyPress	onSubmit
onKeyUp	onUnload
onLoad	

FUNCTIONS AND METHODS

A method is a type of function, associated with an object. A normal function is not associated with an object.

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DOM Methods

Document
clear
createDocument
createDocumentFragment
createElement
createEvent
createEventObject
createRange
createTextNode
getElementsByTagName
getElementById
write

Node
addEventListener
appendChild
attachEvent
cloneNode
createTextRange
detachEvent
dispatchEvent
fireEvent
getAttributeNS
getAttributeNode
hasChildNodes
hasAttribute
hasAttributes
insertBefore
removeChild
removeEventListener
replaceChild
scrollIntoView

Form
submit

DOM Collections
item

Range
collapse
createContextualFragment
moveEnd
moveStart
parentElement
select
setStartBefore

Style
getPropertyValue
setProperty

Event
initEvent
preventDefault
stopPropagation

XMLSerializer
serializeToString

XMLHTTP
open
send

XMLDOM
loadXML

DOMParser
parseFromString

Appendix E

Mathematical
ABS
SIGN
MOD
FLOOR
CEILING
ROUND
DIV
EXP
LN
LOG,LOG2,LOG10
POW
POWER
SQRT
PI
COS
SIN
TAN
ACOS
ASIN
ATAN, ATAN2
COT
RAND
LEAST
GREATEST
DEGREES
RADIANS
TRUNCATE

Date and Time
DAYOFWEEK
WEEKDAY
DAYOFMONTH
DAYOFYEAR
MONTH
DAYNAME
MONTHNAME
QUARTER
WEEK
YEAR
YEARWEEK
HOUR
MINUTE
SECOND
PERIOD_ADD
PERIOD_DIFF
DATE_ADD
DATE_SUB
ADDDATE
SUBDATE
EXTRACT
TO_DAYS
FROM_DAYS
DATE_FORMAT
TIME_FORMAT
CURRENT_DATE
CURRENT_TIME
NOW
SYSDATE
UNIX_TIMESTAMP
FROM_UNIXTIME
SEC_TO_TIME
TIME_TO_SEC

Group
COUNT
AVG
MIN
MAX
SUM
GROUP_CONCAT
VARIANCE
STD
STDDEV
BIT_OR
BIT_AND

DATA TYPES

CHAR	String, length 0 - 255
VARCHAR	String, length 0 - 255
TINYTEXT	String, length 0 - 255
TEXT	String, length 0 - 65535
BLOB	String, length 0 - 65535
MEDIUMTEXT	String, length 0 - 16777215
MEDIUMBLOB	String, length 0 - 16777215
LONGTEXT	String, length 0 - 4294967295
LONGBLOB	String, length 0 - 4294967295
* TINYINT	Integer, -128 to 127
* SMALLINT	Integer, -32768 to 32767
* MEDIUMINT	Integer, -8388608 to 8388607
* INT	Integer, -2147483648 to 2147483647
* BIGINT	Int, -9223372036854775808 to 9223372036854775807
FLOAT	Decimal (precise to 23 digits)
DOUBLE	Decimal (24 to 53 digits)
DECIMAL	"DOUBLE" stored as string
DATE	YYYY-MM-DD
DATETIME	YYYY-MM-DD HH:MM:SS
TIMESTAMP	YYYYMMDDHHMMSS
TIME	HH:MM:SS
ENUM	One of preset options
SET	Selection of preset options

** Note: "UNSIGNED" TINYINT, SMALLINT, MEDIUMINT, INT, BIGINT have the same range of values but start at 0, e.g. TINYINT UNSIGNED is between 0 and 255.*

MYSQL FUNCTIONS IN PHP

mysql_affected_rows
mysql_close
mysql_connect
mysql_data_seek
mysql_db_name
mysql_errno
mysql_error
mysql_fetch_array
mysql_fetch_assoc
mysql_fetch_field
mysql_fetch_lengths
mysql_fetch_object
mysql_fetch_row
mysql_field_flags
mysql_field_len
mysql_field_name
mysql_field_seek
mysql_field_table
mysql_field_type
mysql_free_result
mysql_insert_id
mysql_list_dbs
mysql_list_processes
mysql_list_tables
mysql_num_fields
mysql_num_rows
mysql_pconnect
mysql_query
mysql_real_escape_string
mysql_select_db

SAMPLE SELECT QUERIES

SELECT * FROM tablename	# Returns all columns
SELECT column FROM tablename	# Returns specific column
SELECT COUNT(*) FROM tablename	# Returns number of rows
SELECT SUM(column) FROM tablename	# Returns sum of column
SELECT DISTINCT column FROM tablename	# Returns unique values of column
SELECT * FROM tablename WHERE condition	# Returns rows that match condition
SELECT * FROM tablename WHERE BINARY condition	# Condition is case-sensitive
SELECT * FROM table1 INNER JOIN table2 on table1.id = table2.id	# Join two tables, return all columns
SELECT table1.* FROM table1 INNER JOIN table2 on table1.id = table2.id	# Only return columns from table1
SELECT LAST_INSERT_ID() as new_id	# Returns ID of last created row
SELECT max(column) AS alias	# Return maxium value in column as "alias"
SELECT * FROM table ORDER BY column	# Return all rows ordering by column
SELECT * FROM table LIMIT 10, 20	# Return first 20 rows after row 10

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Control Flow
IFNULL
NULLIF
IF

String
ASCII
ORD
CONV
BIN,OCT,HEX
CHAR
CONCAT
CONCAT_WS
LENGTH
CHAR_LENGTH
BIT_LENGTH
LOCATE
INSTR
LPAD
RPAD
LEFT
RIGHT
SUBSTRING
MID
SUBSTRING_INDEX
LTRIM
RTRIM
TRIM
SOUNDEX
SPACE
REPLACE
REPEAT
REVERSE
INSERT
ELT
FIELD
LCASE
UCASE
LOAD_FILE
QUOTE

Comparison
STRCMP

Cast
CAST
CONVERT

Other
BIT_COUNT
DATABASE
USER
SYSTEM_USER
SESSION_USER
CURRENT_USER
PASSWORD
OLD_PASSWORD
ENCRYPT
DECODE
MD5
SHA1
AES_ENCRYPT
AES_DECRYPT
DES_ENCRYPT
DES_DECRYPT
LAST_INSERT_ID
FORMAT
VERSION
CONNECTION_ID
GET_LOCK
RELEASE_LOCK
IS_FREE_LOCK
BENCHMARK
INET_NTOA
INET_ATON
FOUND_ROWS

Appendix F

Array Functions

array_diff (arr1, arr2 ...)
array_filter (arr, function)
array_flip (arr)
array_intersect (arr1, arr2 ...)
array_merge (arr1, arr2 ...)
array_pop (arr)
array_push (arr, var1, var2 ...)
array_reverse (arr)
array_search (needle, arr)
array_walk (arr, function)
count (count)
in_array (needle, haystack)

String Functions

crypt (str, salt)
explode (sep, str)
implode (glue, arr)
nl2br (str)
sprintf (frmt, args)
strip_tags (str, allowed_tags)
str_replace (search, replace, str)
strpos (str, needle)
strrev (str)
strstr (str, needle)
strtolower (str)
strtoupper (str)
substr (string, start, len)

Filesystem Functions

clearstatcache ()
copy (source, dest)
fclose (handle)
fgets (handle, len)
file (file)
filemtime (file)
filesize (file)
file_exists (file)
fopen (file, mode)
fread (handle, len)
fwrite (handle, str)
readfile (file)

fopen() Modes

r	Read
r+	Read and write, prepend
w	Write, truncate
w+	Read and write, truncate
a	Write, append
a+	Read and write, append

Regular Expression Functions

ereg (pattern, str)
split (pattern, str)
ereg_replace (pattern, replace, str)
preg_grep (pattern, arr)
preg_match (pattern, str)
preg_match_all (pattern, str, arr)
preg_replace (pattern, replace, str)
preg_split (pattern, str)

Regular Expressions Syntax

^	Start of string
$	End of string
.	Any single character
(a|b)	a or b
(...)	Group section
[abc]	Item in range (a, b or c)
[^abc]	Not in range (not a, b or c)
\s	White space
a?	Zero or one of a
a*	Zero or more of a
a*?	Zero or more of a, ungreedy
a+	One or more of a
a+?	One or more of a, ungreedy
a{3}	Exactly 3 of a
a{3,}	3 or more of a
a{,6}	Up to 6 of a
a{3,6}	3 to 6 of a
a{3,6}?	3 to 6 of a, ungreedy
\	Escape character
[:punct:]	Any punctuation symbol
[:space:]	Any space character
[:blank:]	Space or tab

PCRE Modifiers

i	Case-insensitive
s	Period matches newline
m	^ and $ match lines
U	Ungreedy matching
e	Evaluate replacement
x	Pattern over several lines

Date and Time Functions

checkdate (month, day, year)
date (format, timestamp)
getdate (timestamp)
mktime (hr, min, sec, month, day, yr)
strftime (formatstring, timestamp)
strtotime (str)
time ()

Date Formatting

Y	4 digit year (2008)
y	2 digit year (08)
F	Long month (January)
M	Short month (Jan)
m	Month [4] (01 to 12)
n	Month (1 to 12)
D	Short day name (Mon)
l	Long day name (Monday) (lowercase L)
d	Day [4] (01 to 31)
j	Day (1 to 31)
h	12 Hour [4] (01 to 12)
g	12 Hour (1 to 12)
H	24 Hour [4] (00 to 23)
G	24 Hour (0 to 23)
i	Minutes [4] (00 to 59)
s	Seconds [4] (00 to 59)
w	Day of week [1] (0 to 6)
z	Day of year (0 to 365)
W	Week of year [2] (1 to 53)
t	Days in month (28 to 31)
a	am or pm
A	AM or PM
B	Swatch Internet Time (000 to 999)
S	Ordinal Suffix (st, nd, rd, th)
T	Timezone of machine (GMT)
Z	Timezone offset (seconds)
O	Difference to GMT (hours) (e.g., +0200)
I	Daylight saving (1 or 0)
L	Leap year (1 or 0)
U	Seconds since Epoch [3]
c	ISO 8601 (PHP 5) 2008-07-31T18:30:13+01:00
r	RFC 2822 Thu, 31 Jul 2008 18:30:13 +0100

1. 0 is Sunday, 6 is Saturday.

2. Week that overlaps two years belongs to year that contains most days of that week. Hence week number for 1st January of a given year can be 53 if week belongs to previous year. date("W", mktime(0, 0, 0, 12, 8, $year)) always gives correct number of weeks in $year.

3. The Epoch is the 1st January 1970.

4. With leading zeroes

Available free from **AddedBytes.com**

Appendix G
Online Resources

No.	Name:	Address:
1.	*"WWW consortium"*	http://www.w3.org/
	"CSS Tutorial"	http://www.w3schools.com/css/
2.	*"DHTML scripts for the real world"*	http://www.dynamicdriver.com/
3.	*"HTML tutorials for the rest of us"*	http://www.pagetutor.com/
	"CSS button designer"	http://www.pagetutor.com/button_designer/
4.	*"Web design, development and …"*	http://www.addedbytes.com/
5.	*"The ultimate HTML resource"*	http://www.htmlgoodies.com/
6.	*"HTML code tutorials"*	http://www.htmlcodetutorial.com/
7.	"Network for technology professionals"	http://www.internet.com/
8.	*"Articles in web dev., software, …"*	http://www.somacon.com/
9.	"Open standards web design"	http://www.codestyle.org/
	"Font sampler and survey"	http://www.codestyle.org/css/font-family/
10.	*"JavaScript Kit"*	http://www.javascriptkit.com/cutpastejava.shtml
11.	*"100s of free scripts"*	http://www.free-javascripts.com/
12.	*"Embedded media HTML generator"*	http://cit.ucsf.edu/embedmedia/step1.php
13.	*"Web design resources"*	http://www.wpdfd.com/resources/
14.	*"Tutorials, templates and resources"*	http://www.killersites.com/
15.	*"PHP code help"*	http://www.codewalkers.com/
16.	*"Resources for web design"*	
	http://www.kayodeok.btinternet.co.uk/favorites/webdesign.htm	
17.	*"Web design references"*	
	http://www.d.umn.edu/itss/support/Training/Online/webdesign/	

Notes:

Fordham Council on Applied Psychometrics
Professional Workshop Series

Graduate School of Arts and Sciences

Psychology Department / Psychometrics Program

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