

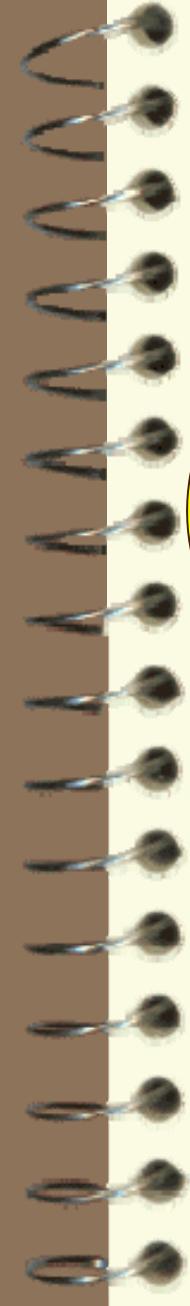
COMSC-030

Web Site Development-

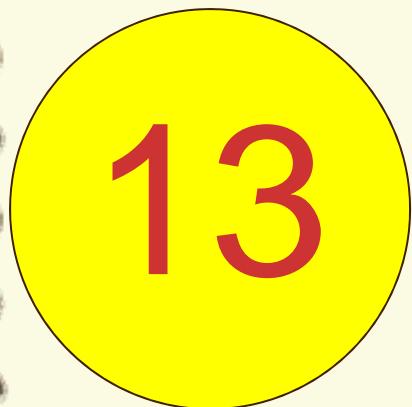
Part 1



Part-Time Instructor: Joenil Mistal



Chapter 13



Working with JavaScript

Looking for ways to add action and interest to your Web site? JavaScript can help you add interactivity to your HTML documents. This chapter shows you how to use JavaScripts, through a few examples, to make your pages more interesting to Web site visitors..



Chapter 13 Topics: Working with JavaScript

- Understanding JavaScript
- Understanding Script Events and Handlers
- Add JavaScript to a Web Page
- Create a JavaScript File
- Insert the Current Date and Time
- Display an Alert Message Box
- Display a Pop-Up Window
- Customize the Status Bar Message for a Link





Understanding JavaScript

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- You can use scripts such as those written in JavaScript, to add dynamic effects to your Web pages.
- Scripts can turn a static HTML page into an existing, **interactive page** that is sure to attract Web visitors.
- You can use JavaScript to display:
 - message boxes,
 - change images when a user rolls a mouse over an area of the page,
 - validate form information and much more



Understanding JavaScript

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How Script Work

- Scripts are little programs you can write to add **interactively** to Web pages.
- Scripting instructions can activate when an event occurs, such as when a user clicks an object or moves the mouse pointer over an area of the page.
- Scripts can also activate automatically when the page is downloaded.
- Scripts are written in **programming languages** such JavaScript



Understanding JavaScript

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JavaScript

- Most Web page scripts are written in the **JavaScript language** which is supported by a vast majority of newer browsers.
- JavaScript is widely used by Web developers to add action and interactivity to Web pages.
- JavaScript is case-sensitive, and requires careful placement of quotes, single quotes, double quotes, and other punctuations.



Understanding JavaScript

(pg 199)

Client-Side and Server-Side Scripts

- Because scripts require a program to read them, you have two options for reading Web page scripts:

**Client-Side
Script ran on
Web Browser**

Scripts read by Web browser are called client-side scripts. Most scripts you use to add action to your Web page are client-side scripts.

**Server-Side
Script
ran on
Web Server**

If your Web site uses forms to collect information from visitors, you commonly use server-site scripts. Server-side scripts work with the server to help **databases** and other application **collection information** from Web pages.

Server-Side
Script
ran on
Web Server



Select a Shipping Address - Amazon.com Checkout - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Links Go Convert Select

Address https://www.amazon.com/gp/ordering/checkout/sign-in/from-auth-portal.html?ie=L Go Links Convert Select

amazon.com SIGN IN SHIPPING & PAYMENT GIFT-WRAP PLACE ORDER

Enter the shipping address for this order

Please enter a shipping address for this order. Please also indicate whether your billing address is the same as the shipping address entered. When finished, click the "Continue" button. Or, if you're sending items to more than one address, click the "Add another address" button to enter additional addresses.

Full Name: [Input Field]

Address Line1:
Street address, P.O. box, company name, c/o [Input Field]

Address Line2:
Apartment, suite, unit, building, floor, etc. [Input Field]

City: [Input Field]

State/Province/Region: [Input Field]

ZIP: [Input Field]

Country: United States [Dropdown]

Phone Number: [Input Field]

Is this address also your billing address? Yes No (If not, we'll ask you for it in a moment.)

Continue 

OR Add another address

if you're sending items to more than one address.

Server-Side Script ran on Web Server

On-Line Training Feedback

Thank you for participating in the survey. Please take a few moments to assess the on-line training you just took.

First Name (Optional)

Last Name (Optional)

The course instruction is clear. Yes No

The course instruction is complete. Yes No

The course is useful to my work. Yes No

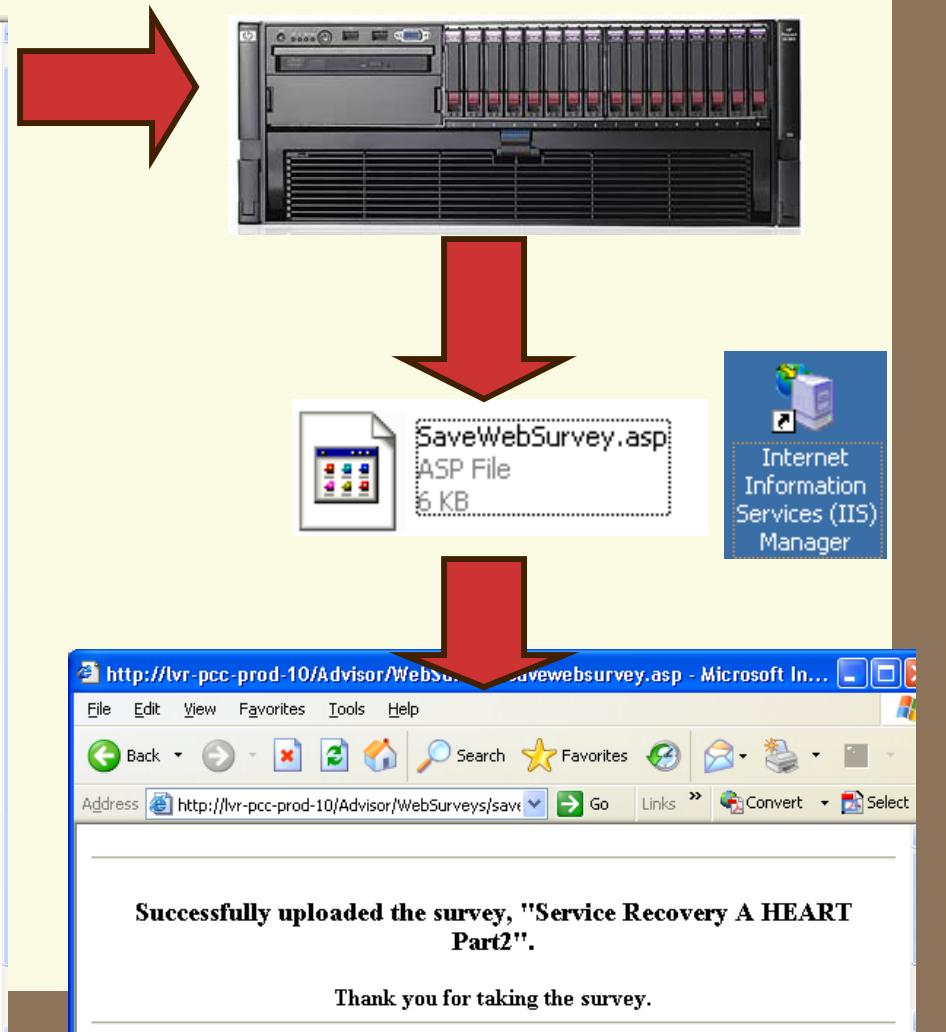
The course is effective. Yes No

Comments

Enjoyed the on-line training course.

Thank for taking time to complete the survey.

Web Server



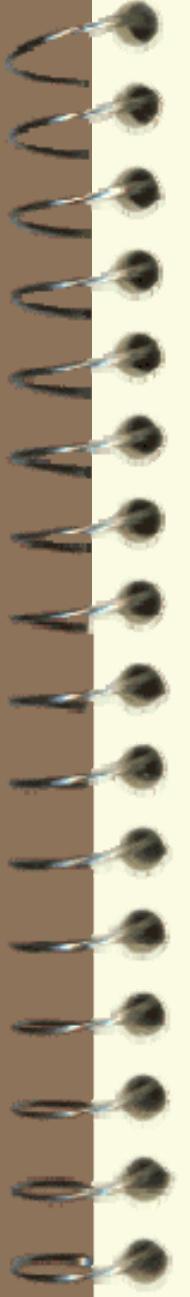


Understanding JavaScript

(pg 200)

Scripting Tools

- You can create your own scripts using an **HTML editor**.
- Many editors, such as Adobe Dreamweaver and Adobe GoLive, offer **built-in** toolsets to help you create your own scripts without need to know a lot about the programming.
- You can also easily incorporate scripts that other users have written and add them to your own HTML documents.



Understanding JavaScript

(pg 200)

Finding Prewritten Scripts

- You can find numerous sites on the Internet that offer JavaScripts you can use on your own Web pages.
- Examples:
 - www.w3schools.com
 - www.java-scripts.net
 - www.javascriptcity.com
 - www.javascript.internet.com

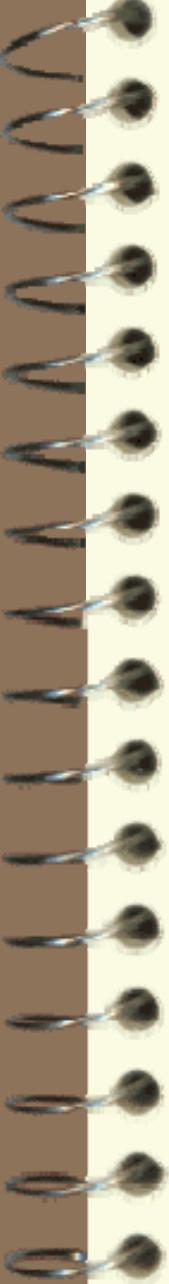


Understanding JavaScript

(pg 200)

Scripting Tips

- Many users turn off the JavaScript function in their browsers for security reasons.
- You can use the **<NOSCRIPT>** and **</NOSCRIPT>** tags to include alternative text about the script (i.e. “Your browser does not support this script”)
- It is also a good policy to note your scripting language on your HTML document.
- You can use the **<META>** tag to identify the type of scripting language you use.



Understanding Script Events and Handlers

(pg 201)

- When using JavaScripts to add interactivity to your pages, it helps to understand when and why a **script executes**.
- Some scripts run as soon as the page downloads, while others require an action on the part of the visitor
- As the Web site developer, you decide when and how a script executes.
- You can use **events** and **event handlers** to control your scripts.



Understanding Script Events and Handlers

(pg 201)

Events

- Script events are any **actions taken** by a Web visitor, such as clicking on an area of the page.
- The browser can also cause an event, such as loading a page, to occur.
- For example, mouse events include action a user performs with a mouse, such as clicking, moving the mouse pointer over an object, or releasing the mouse button after clicking it.
- Keyboard events include key presses on a keyboard.



Understanding Script Events and Handlers (pg 201)

Event Handlers

- You can determine what happens after an action by specifying an event handler.
- Event handlers associate an object or Web page element with an event.
- For example, you can use the ONCLICK event handler to associate a Web page button with a mouse click.
- Event handlers are not added using the <SCRIPT> tags, but rather appear within HTML element tags.



Add JavaScript to a Web Page

(pg 202)

- JavaScripts are a great way to add interactivity to your Web pages.
- You can use the **<SCRIPT>** and **</SCRIPT>** tags to add JavaScript to your HTML document.
- The browser reads anything between the two tags as a script.



Add JavaScript to a Web Page

(pg 202)



Add JavaScript to a Web Page

1. Type **<SCRIPT LANGUAGE= “javascript”>** where you want to insert the script on the page.
2. Type the code for the script you want to add.
3. Type **</SCRIPT>** at the end of the script.

Add JavaScript to a Web Page

(pg 202)



Add JavaScript to a Web Page

survey.html - WordPad

File Edit View Insert Format Help

```
<HTML>
<HEAD>
<TITLE>Survey Feedback</TITLE>
<LINK REL="stylesheet" TYPE="text/css" HREF="mystyle.css">

</HEAD>

<BODY>

<SCRIPT TYPE="text/javascript">
    alert("Please remember to click on submit button to send your survey.")
</SCRIPT>1

<HR>
<H1 ALIGN="center">Survey Feedback</H1>

<H3 ALIGN="center">
<SCRIPT TYPE="text/javascript">
document.write(Date())
</SCRIPT>2
</H3>3

<HR>

<FORM METHOD="post" ACTION="cgi-bin/survey.pl">

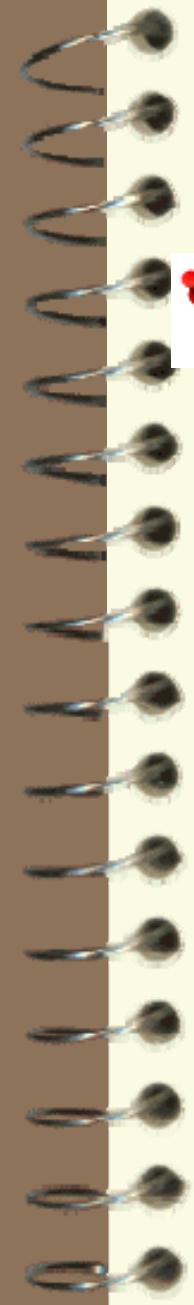
<H3>Thank you for visiting our site. Please take a moment to fill out the survey. Your feedback will
help us to create a better Web site for your HTML educational needs.</H3>
```



Create a JavaScript File

(pg 202)

- Many developers prefer to save their scripts in a separate text file and link the file to the Web page.
- Storing your scripts in a separate file can free up your HTML document to focus just on Web page content.
- When saving a JavaScript file, use the .js file extension.
- When you publish your Web pages to a server, be sure to include the linked JavaScript file as part of your file upload.



Create a JavaScript File

(pg 203)



Create a JavaScript File

1. Create a new document in your text editor.
2. Type your JavaScript code
3. Save the file using the **.js** file extension.

Create a JavaScript File

(pg 203)



Create a JavaScript File

2 →

The screenshot shows a Windows desktop environment. On the left, there is a WordPad window titled "todaydate.js - WordPad" containing a JavaScript code snippet. On the right, a "Save As" dialog box is open, prompting the user to save the file. The file name is set to "todaydate.js" and the save type is "Text Document". A large red number "3" is overlaid on the "Save As" dialog box, with a red arrow pointing downwards towards the "File name:" field.

```
<!-- Javascript to display date in the following format:  
<!-- "Today is "Month Day, Weekday"  
  
// get today's date  
var d=new Date();  
  
// get the current month  
var month=new Array(12);  
  
// store name of month into array variable  
month[0]="January";  
month[1]="February";  
month[2]="March";  
month[3]="April";  
month[4]="May";  
month[5]="June";  
month[6]="July";  
month[7]="August";  
month[8]="September";  
month[9]="October";  
month[10]="November";  
month[11]="December";  
  
// store day of the week into array variable  
var weekday=new Array(7);  
weekday[0]="Sunday";  
weekday[1]="Monday";  
weekday[2]="Tuesday";  
weekday[3]="Wednesday";  
weekday[4]="Thursday";  
weekday[5]="Friday";  
weekday[6]="Saturday";  
  
// display the format on page.  
document.write("Today is " + month[d.getMonth()] + " " + d.getDate() + ", " + weekday[d.getDay()] );
```

3

Create a JavaScript File

(pg 203)



Create a JavaScript File

4. In your Web page document, click where you want to insert the script and type **<SCRIPT TYPE=“text/javascript”**
5. Type a blank space and type **SRC=“?”** , replacing ? with the location and name of the JavaScript file.
6. Type **</SCRIPT>** . Note: The JavaScriipt file is now linked to the Web page.

Create a JavaScript File

(pg 203)



Create a JavaScript File

4

```
<HTML>
<HEAD>
<Title>Simplified Creating Web Pages with HTML</TITLE>
<STYLE>
    H1(font-family: arial, verdana; color: white; font-size: 28pt; text-align: center)
    H2 (font-family: arial, verdana; font-size: 20pt; font-weight: bold; color: white; text-align:
center)

</STYLE>

</HEAD>

<SCRIPT language="JavaScript">
function popupwindow()
{
    Textbook= window.open('Textbook.html','Textbook','width=325,height=385') ;
    Textbook.moveTo(700,0);
}
</SCRIPT>
```

5

```
<BODY BGCOLOR="gray" ONLOAD="javascript:window.open('Textbook.html','Textbook','WIDTH=325,HEIGHT=385')">
```

6

```
<H1>Simplified Creating Web Pages with HTML</H1>
<H2>
<SCRIPT TYPE="text/javascript" SRC="todaydate.js"></SCRIPT>
</H2>
```

```
</BODY>
</HTML>
```



Insert the Current Date and Time

(pg 204)

- You can use JavaScript to insert the current date and time on your Web page.
- This can help your page seem current and up-to-date.

Insert the Current Date and Time

(pg 204)



Insert the Current Date and Time

1. Click where you want to insert the date and time on the page and add a new line.
2. Type **<SCRIPT TYPE=“text/javascript”>**
3. Type **document.write(DATE())**
4. Type **</SCRIPT>**

You may prefer to keep your script on one line, or break it onto multiple lines to make it easier to read.

Insert the Current Date and Time

(pg 204)



Insert the Current Date and Time



```
Survey.html - WordPad
File Edit View Insert Format Help
[File Icons]
<HTML>
<HEAD>
<TITLE>Survey Feedback</TITLE>
<LINK REL="stylesheet" TYPE="text/css" HREF="mystyle.css">

</HEAD>

<BODY>
<HR>
<H1 ALIGN="center">Survey Feedback</H1>

<H3 ALIGN="center">
<!-- insert current date and time: document.write(Date()) -->
<SCRIPT TYPE="text/javascript">
    document.write(Date())
</SCRIPT>
</H3>

<HR>

<FORM METHOD="post" ACTION="cgi-bin/survey.pl">

<H3>Thank you for visiting our site. Please take a moment to fill out the survey. Your feedback will
help us to create a better Web site for your HTML educational needs.</H3>

<BR>Optional: Please enter your email address below, if you like us to contact you regarding your
```

1

2

3



Display an Alert Message Box

(pg 205)

- You can use JavaScript to display an alert message box on your Web page.
- For example, you might use alert messages to provide special instructions about your site or to alert the user to any important information.
- After the user reads the message, he or she can close the box.

Display an Alert Message Box

(pg 205)



Display an Alert Message Box

1. Type <SCRIPT TYPE="text/javascript">
2. Type **alert('?)** , replacing the ? with the message text you want to appear in the box.
3. Type </SCRIPT> to end the JavaScript code.

Note: The placement of your script on the page determines its order of appearance during the page download.

Place it at the top to load first, or at the bottom to load last.

When the user displays your page in a browser, the alert message box appears.

Display an Alert Message Box

(pg 205)



Display an Alert Message Box

survey.html - WordPad

File Edit View Insert Format Help

<!-- Insert menu list here and remove the PRE preformatted tags --->

<SELECT NAME="relevant_info" SIZE="1">

<OPTION VALUE="5" SELECTED>Strongly Agree (5)

<OPTION VALUE="4">Agree (4)

<OPTION VALUE="3">Neutral (3)

<OPTION VALUE="2">Disagree (2)

<OPTION VALUE="1">Strongly Disagree (1)

</SELECT>

What other web site development educational topic would you like to see on our site?

<!-- Insert checkbox here and remove the PRE preformatted tags --->

<INPUT TYPE="checkbox" NAME="topic" VALUE="CSS">CSS (Cascading Style Sheet)

<INPUT TYPE="checkbox" NAME="topic" VALUE="XML">XML (eXtensible Markup Language)

<INPUT TYPE="checkbox" NAME="topic" VALUE="JavaScript">JavaScript

<INPUT TYPE="checkbox" NAME="topic" VALUE="ASP">ASP (Active Server Pages)

<INPUT TYPE="checkbox" NAME="topic" VALUE="PHP">PHP: Hypertext Preprocessor

1

<!-- Insert submit and reset button here --->

<INPUT TYPE="submit" VALUE="Submit">&nbsp&nbsp&nbsp<INPUT TYPE="reset" VALUE="Reset">

<!-- display an message: alert("Please remember to click on submit button to send your survey.")-->

<SCRIPT TYPE="text/javascript">

3

 alert("Please remember to click on submit button to send your survey.")

</SCRIPT>

</BODY>

</HTML>



Display a Pop-Up Window

(pg 205)

- You can use JavaScript to display a pop-up window on your Web page.
- Pop-up windows are a great way of alerting your Web site visitors to important news about your site, announcing an upcoming event.
- The message that appears in the window is actually another separate Web page created just for the pop-up window.

Display a Pop-Up Window

(pg 206)



Display a Pop-Up Window

1. Within the **<BODY>** tag, type
ONLOAD=“javascript:window.open(‘?’,
Replace ? with the location and name of the Web
page you want to appear in the pop-up box.
2. Type ‘?’ , replace ? with a name for the window.
3. Type ‘**HEIGHT=? , WIDTH=?’?”** , replacing the ?
With a height and width size, measured in pixels,
for the pop-up window.

When the user displays your page in a browser, the pop-up window appears.

Display a Pop-Up Window

(pg 206)



Display a Pop-Up Window

Banner.HTML - WordPad

```
<HTML>
<HEAD>
<Title>Simplified Creating Web Pages with HTML</TITLE>
<STYLE>
    H1(font-family: arial, verdana; color: white; font-size: 28pt; text-align: center)
    H2 (font-family: arial, verdana; font-size: 20pt; font-weight: bold; color: white; text-align: center)

</STYLE>

</HEAD>

<SCRIPT language="JavaScript">
function popupwindow()
{
Textbook= window.open('Textbook.html','Textbook','width=325,height=385');
Textbook.moveTo(700,0);
}
</SCRIPT>

<BODY BGCOLOR="gray" ONLOAD="javascript:window.open('Textbook.html','Textbook','WIDTH=325,HEIGHT=385')">

<H1>Simplified Creating Web Pages with HTML</H1>
<H2>
<SCRIPT TYPE="text/javascript" SRC="todaydate.js"></SCRIPT>
</H2>

</BODY>
</HTML>
```

1 2 3



Customize the Status Bar Message for a Link

(pg 207)

- Ordinarily, when the user moves his or her mouse pointer over a link on your page, the browser's status bar displays the address of the link.
- You can customize the text that appears in the **status bar** for a link.
- For example, you might shorten a complex address to something simpler, or create your own text message to appear instead.



Customize the Status Bar Message for a Link

(pg 207)



Customize the Status Bar Message for a Link

1. Within the <A> tag for the link you want to change, type

ONMOUSEOVER=“window.status=

2. Type ‘followed by the status bar message text, ending with ‘

Anything you type between the single quotes appears in the status bar

3. Type **;return true”**

Customize the Status Bar Message for a Link

(pg 207)



Customize the Status Bar Message for a Link

Spiral notebook background image.

SyntaxRules.html - WordPad

File Edit View Insert Format Help

1 2 3

```
<HTML>
<HEAD>
<TITLE>Understanding HTML</TITLE>
<BASE TARGET="_blank">
<LINK REL="stylesheet" TYPE="text/css" HREF="mystyle.css">
</HEAD>
<BODY>

<H1>Understanding HTML Syntax and Rules</H1>

<A HREF="http://www.w3schools.com/html/html_intro.asp" TARGET="_blank"><IMG SRC="HTML.jpg" ALIGN="Left"
WIDTH="100" HEIGHT="100" BORDER="0" HSPACE="20" ALT="http://www.w3schools.com/html/html_intro.asp"></A>
<P>The HTML language is simple language for describing Web page content. HTML stands for <B>H</B>yper <B>T</B>ext
<B>M</B>arkup <B>L</B>anguage. HTML is not a programming language, it is a markup language. A markup language is a
set of markup tags to describe web pages. HTML rules, called syntax, govern the way in which code is written.
Learning the right way to write your code can save you confusion and errors later.</P>
<H2>Below are other resource links.</H2>
<P><A HREF="http://www.w3schools.com/html/html_intro.asp" ONMOUSEOVER="window.status='This web site is an HTML
resource link to Getting Started with HTML at w3schools.com';return true">HTML Getting Started at w3schools.com</A>
</P>
<P><A HREF="PlanningWebSite.html" TARGET="main" ONMOUSEOVER="window.status='This web page contains steps in
building a Web Site';return true">How to Plan Building your Web Site?</A></P>
```