

# XHTML ESSENTIALS

## Introduction

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HTML, or HyperText Markup Language, is the authoring language that describes how a Web page should be displayed by a Web browser. It has two essential features: hypertext and universality. Hypertext means when a visitor clicks a link on a Web page, the visitor is led to another Web page or document. Universality means that because HTML documents are saved as text files, virtually any computer can read a Web page.<sup>1</sup> XHTML, or eXtensible HyperText Markup Language, is a later version of HTML that includes additional standards set forth by the international organization called the World Wide Web Consortium (W3C).

Both HTML and XHTML can be understood by most browsers, but for increased accessibility to your Web pages, we recommend using XHTML when creating your Web pages.

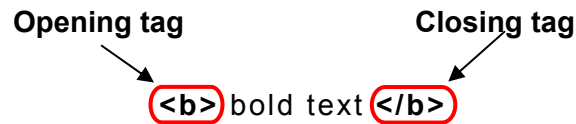
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<sup>1</sup> Castro, E. (2003). HTML for the World Wide Web, Fifth Edition, with XHTML and CSS: Visual QuickStart Guide. 14.

## Anatomy of an XHTML Tag

XHTML tags are pre-defined elements (specific commands) written between less than (<) and greater than (>) signs, also known as angle brackets. There is usually an opening and closing tag, with the affected text or other content lying between the two tags. These tags – and their associated attributes and values – can include formatting instructions and details about the relationship between parts of the Web page.

The following example demonstrates how to display **bold text** in a browser.



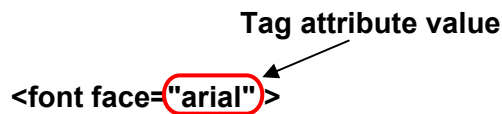
### Attributes

Many tags have special attributes that offer a variety of options that can be applied to the affected text. Attributes are entered between the name of the tag and the final greater than symbol in the opening tag. Examples include: alignment, color, font face and size.



### Values

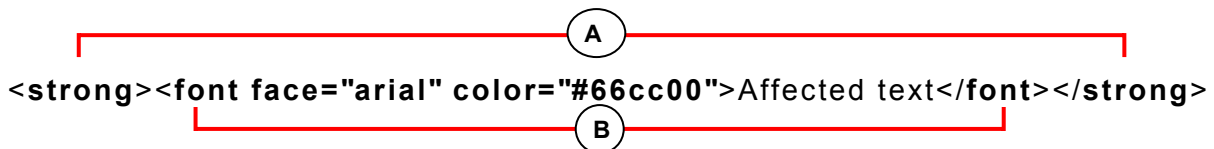
Attributes also have values. These values are the parameters by which the attributes behave. Values must be enclosed in quotation marks.



The text affected by this particular **font** tag will be displayed using an Arial font-face.

### Nested Tags

If you want to apply more than one tag to your content you need to nest your tags. For example, you may want to add bold formatting to a group of words that are also displayed in the Arial font-face. Here order is everything. Whenever you use a closing tag it should correspond to the last unclosed opening tag. In the following example, first open tag A (strong) and then tag B (font). After your affected text you close tag B (/font), and finally close tag A (/strong).



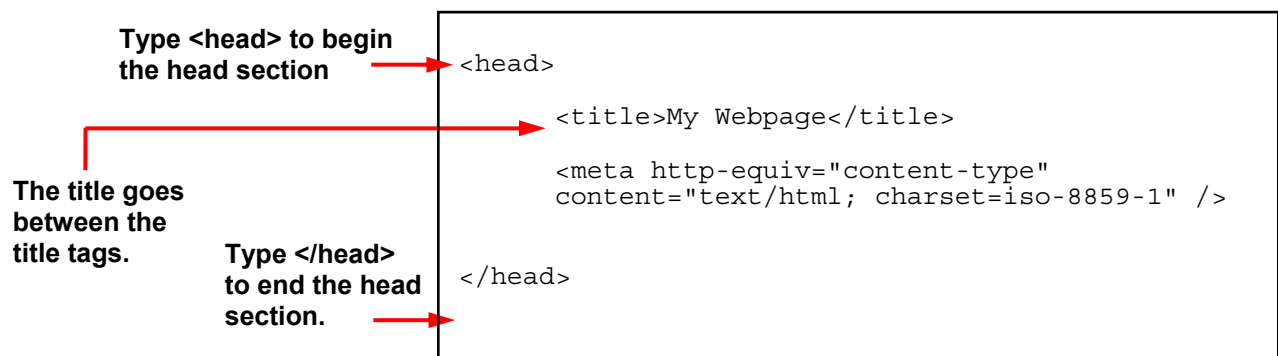
## Structure of an XHTML File

At the foundation of every XHTML file is a set of structure tags that divide an XHTML file into a head section and a body section. These two sections are enclosed between an opening `<html>` tag and a closing `</html>` tag. Following is a simple example of an XHTML file that highlights the structure tags that are *required* within every XHTML file:



### Head Section

- Contains the title of the Web page and information pertaining to the entire Web page.
- Contains any meta tags (`<meta>`). The meta tag shown in the example below is *required* in all XHTML files. Other meta tags may contain information such as the author, description of the Web page and keywords for search engines.
- Nothing in the head section is visible in the browser except for the title that is found between the title tags. The title appears in the title bar of the browser.



## **Body Section**

- Contains the file contents that are visible in the browser window. In other words, whatever you find within the body tags is what you will see in the browser window!

**Type <body> to begin the Web page content section.**

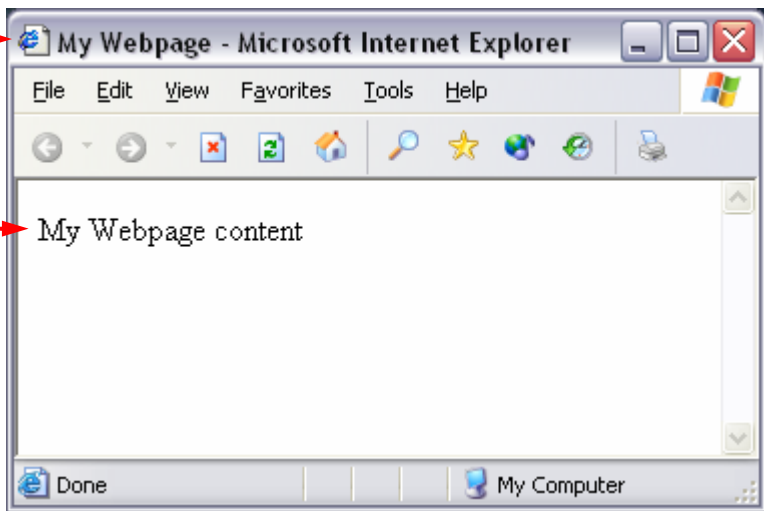
**Type </body> to close the Web page content section.**

```
<body>
    My Webpage content
</body>
```

- Viewed in its entirety using a browser, the Web page would look like this:

**The Web page title contained within the head tags.**

**The content contained within the body tags.**



## XHTML Rules

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### Document Type

The first line in your XHTML document must declare the document type. The following tag is added automatically when you use the **File > Convert > XHTML** utility in Dreamweaver.

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

### Namespace and Language

The second line in your XHTML document must declare the namespace. The primary language is necessary for accessibility. The following `xmlns` attribute is added automatically when you use the **File > Convert > XHTML** utility in Dreamweaver. However, you need to manually add the language attributes after the `xmlns` attribute.

```
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">
```

Language codes can be found at the following Web address. Be sure to use the two-letter abbreviations from the second column only. <http://www.w3.org/WAI/ER/IG/ert/iso639.htm>

### Character Set

You need to declare your file's character set using the `<meta>` tag so the characters display properly in the browser. The most common character set is shown below, which represents the set used in the U.S. and Western Europe. You can add this tag after the `<title>` tag in your document. The following tag is not added automatically during file conversion. However, it is added when you create a new XHTML document.

```
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
```

### Rules for Manually Converting Your HTML Files

If you manually convert your HTML documents to XHTML in a text editor or the Code View within Dreamweaver, follow the rules above and these additional rules:

- Write all tag and attribute names in lower case.
- All tag attribute values must be contained within quotes.
- Close all tags. For example, `<p> </p>`
- Close empty tags – those with no required closing tag – with a space and a slash. For example, `<br />`
- Do not put more than two dashes inside a comment – this is only used for the beginning and closing tags. For example, `<!-- comment text -->` is good, while `<!------->` is bad.
- Encode all special characters in your Web page's content area with the `&` representation in the HTML code. Here are the four main special characters and their corresponding representation.

Special Character	Representation
<	&lt;
>	&gt;
"	&quot;
&	&amp;

## Common XHTML Tags and Attributes

TAG/ATTRIBUTE(S)	DESCRIPTION
<b>a</b>	An anchor or link.
href	The Web address (URL) of a page that is to be linked to.
name	The name of an anchor (used to link within the same page).
<b>body</b>	The main section of an HTML or XHTML document.
alink, link, vlink	Hyperlink colors of active link, links and visited links.
background	A background image for the entire Web page.
bgcolor	A background color for the entire Web page.
<b>blockquote</b>	A section of text as block quoted (indented).
<b>br</b>	A line break.
<b>div</b>	Divisions in the text (set the text apart).
align	The alignment of text (left, right, center, justified).
<b>em</b>	The text as italics.
<b>font</b>	Font color, size and face.
size	Font size (1 to 7, with 7 being the largest).
color	Font color, using named colors or hexadecimal values.
face	Font face, using common system fonts.
<b>h1, h2, h3, h4, h5, h6</b>	A heading with h1 being the largest and h6 being the smallest.
<b>head</b>	The heading of an HTML or XHTML document.
<b>hr</b>	A horizontal rule.
align	The alignment of a horizontal rule to the left, right or center.
width	The width of a horizontal rule (as a percent or in pixels).
size	The height of a horizontal rule (as a percent or in pixels).
<b>html</b>	Identifies text as an HTML or XHTML document.
<b>img</b>	An image to be displayed in the Web page.
align	Image alignment to the right, left or center of the text.
alt	Alternate text for the image, for accessibility.
border	The width of the border around the image (in pixels). Use <code>border="0"</code> for no border width to be displayed.
src	The source of the image – where to find the image to display.
height	The height of the image (in pixels).
width	The width of an image (in pixels).
<b>ol</b>	An ordered list.
type	The type of an ordered list with type being any of the following: 1, A, a, I, i.
start	The starting point of the first item in an ordered list.
<b>p</b>	Paragraph (creates the equivalent of a double line-break).
align	Paragraph alignment to the left, right, center or justified.
<b>strong</b>	The text as bold.
<b>sub</b>	Subscript text.
<b>sup</b>	Superscript text.

<b>table</b>	The beginning of a table.
bgcolor	The background color of the table.
border	The thickness of the table border (in pixels).
cellpadding	The amount of space between table cell content and table borders (in pixels).
cellspacing	The amount of space between table cells (in pixels).
height	The height of the table (as a percent or in pixels).
width	The width of the table (as a percent or in pixels).
<b>td</b>	A table cell.
align	The horizontal alignment of the content in the cell (in pixels).
valign	The vertical alignment of the content in the cell (in pixels).
bgcolor	The cell background color.
colspan	The cell spans multiple columns (it is a merged cell).
rowspan	The cell spans multiple rows (it is as a merged cell).
height	The height of the cell (as a percent or in pixels).
width	The width of the cell (as a percent or in pixels).
<b>title</b>	The name or description of an HTML or XHTML document.
<b>tr</b>	A table row.
align	The horizontal alignment of the content in the row (in pixels).
valign	The vertical alignment of the content in the row (in pixels).
bgcolor	The background color of the table row.
<b>ul</b>	An unordered list.
type	The type of an unordered list with type being any of the following: disc, circle, square.
<b>&amp;nbsp;</b>	A single space using a special character code.

## XHTML for Use in WebCT

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WebCT supports the use of XHTML tags directly in the text you type, including mail messages, quiz questions and upper/lower textblocks or headers and footers.

### Sample XHTML Uses

USE	SAMPLE XHTML TAG
bold text	<code>&lt;b&gt;my text&lt;/b&gt;</code>
font color, face, size	<code>&lt;font color="red" face="arial" size="+1"&gt;my text&lt;/font&gt;</code>
heading	<code>&lt;h2&gt;my heading&lt;/h2&gt;</code>
hyperlink to Web page	<code>&lt;a href="http:www.csus.edu"&gt;my link&lt;/a&gt;</code>
insert image	<code>&lt;img src="/_COURSEID_/myfolder/myfilename" /&gt;</code>
italicized text	<code>&lt;em&gt;my text&lt;/em&gt;</code>
line break	<code>&lt;br /&gt;</code>
paragraph	<code>&lt;p&gt;my text&lt;/p&gt;</code>
table	<code>&lt;table border="1" width="75%" align="center"&gt;&lt;tr&gt;&lt;td&gt;my text&lt;/td&gt;&lt;/tr&gt;&lt;/table&gt;</code>
underline	<code>&lt;u&gt;my text&lt;/u&gt;</code>

### Open a new custom window from a link

You can open a new custom-sized window from a link using JavaScript. This can be used in a quiz question to provide a link to a Web site or Web page in your WebCT course. Here are a couple of examples for linking:

#### To a Web site or Web page:

```
<a href="javascript:void(0)" onclick="window.open('http://www.csus.edu', 'homepage', 'toolbar=0, scrollbars=1, location=0, resizable=1, width=585, height=600')">Sac State Web page</a>
```

#### To a file in your WebCT course (applicable only in WebCT version 4):

```
<a href="javascript:void(0)" onclick="window.open('/_COURSEID_/myfolder/myfilename.htm', 'myWin', 'width=280, height=440, resizable=yes, scrollbars=yes, menubar=yes, status=no, toolbar=no')">Click here for my html file.</a>
```

## Using Color

When specifying color in your XHTML tags, named colors or hexadecimal values can be used. You are limited to 16 named colors and 256 colors (using hexadecimal equivalents).

### Named Colors

black	green	navy	silver
blue	lime	olive	teal
cyan	magenta	purple	white
gray	maroon	red	yellow

### Hexadecimal Color Values (a sample)

RRGGBB (two characters each for red, green and blue)			
Color	Hex Value	Color	Hex Value
White	#FFFFFF	Yellow	#FFFF00
Red	#FF0000	Black	#000000
Pale Dull Blue	#9999FF	Dark Dull Cyan	#339999
Pale Weak Red	#FFCCCC	Pale Dull Spring	#CCFF99
Light Pink Red	#FF6699	Light Dull Violet	#9966CC

**TIP:** When using the RGB hex value to define color values, a pound symbol (#) precedes the six-character hex value.

### Color References

Most good XHTML reference books have color charts that provide a sample of colors. However, online color references tend to be more complete. Two online references that we recommend for color on the Web are:

- Online Providers Resource Page: <http://www.csus.edu/web/palette.html>
- Visibone.com: <http://www.visibone.com/colorlab/>

## Resources

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### Images/Audio/Video/Textual and Other Resources

- \* <http://www.csus.edu/uccs/acadtech/iav.stm>

### Online Tutorials

- \* A Beginner's Guide to HTML:  
<http://archive.ncsa.uiuc.edu/General/Internet/WWW/HTMLPrimer.html>
- \* "The Web Developer's Resource": <http://www.webmonkey.com>
- \* Quick Reference Guides (QuikRefs) to HTML:  
<http://www.csus.edu/uccs/documents/QuikRefSite>
- \* Web tutorials at Sac State: <http://www.csus.edu/web/tutorials.html>
- \* XHTML Tutorial: <http://www.w3schools.com/xhtml/>

### XHTML Reference Books

- \* HTML for the World Wide Web, Fifth Edition, with XHTML and CSS: Visual QuickStart Guide, by Elizabeth Castro and published by Peachpit Press. You can locate and view this book online at <http://www.peachpit.com>.
- \* Teach Yourself Visually HTML, by Ruth Maran and published by John Wiley & Sons.