What is an HTML File?

- HTML stands for **H**yper **T**ext **M**arkup **L**anguage
- An HTML file is a text file containing small **markup tags**
- The markup tags tell the Web browser **how to display** the page
- An HTML file must have an **htm** or **html** file extension
- An HTML file can be created using a **simple text editor**

Do You Want to Try It?

If you are running Windows, start Notepad.

Type in the following text:

```
<html>
<head>
<title>Title of page</title>
</head>
<body>
This is my first homepage. <b>This text is bold</b>
</body>
</html>
```

Save the file as "mypage.htm".

Start your Internet browser. Select "Open" (or "Open Page") in the File menu of your browser. A dialog box will appear. Select "Browse" (or "Choose File") and locate the HTML file you just created - "mypage.htm" - select it and click "Open". Now you should see an address in the dialog box, for example "C:\MyDocuments\mypage.htm". Click OK, and the browser will display the page.

Example Explained

The first tag in your HTML document is <html>. This tag tells your browser that this is the start of an HTML document. The last tag in your document is </html>. This tag tells your browser that this is the end of the HTML document.

The text between the <head> tag and the </head> tag is header information. Header information is not displayed in the browser window.

The text between the <title> tags is the title of your document. The title is displayed in your browser's caption.

The text between the <body> tags is the text that will be displayed in your browser.

The text between the and tags will be displayed in a bold font.

HTM or HTML Extension?

When you save an HTML file, you can use either the .htm or the .html extension. We have used .htm in our examples. It might be a bad habit inherited from the past when some of the commonly used software only allowed three letter extensions.

With newer software we think it will be perfectly safe to use .html.

Note on HTML Editors:

You can easily edit HTML files using a WYSIWYG (what you see is what you get) editor like FrontPage or Dreamweaver, instead of writing your markup tags in a plain text file.

However, if you want to be a skillful Web developer, we strongly recommend that you use a plain text editor to learn your primer HTML.

Frequently Asked Questions

Q: After I have edited an HTML file, I cannot view the result in my browser. Why?
A: Make sure that you have saved the file with a proper name and extension like "c:\mypage.htm". Also make sure that you use the same name when you open the file in your browser.

Q: I have edited an HTML file, but the changes don't show in the browser. Why?
A: A browser caches pages so it doesn't have to read the same page twice. When you have modified a page, the browser doesn't know that. Use the browser's refresh/reload button to force the browser to reload the page.

Q: What browser should I use?
A: You can do all the training with all of the well-known browsers, like Internet Explorer, Firefox, Netscape, or Opera. However, some of the examples in our advanced classes require the latest versions of the browsers.

Q: Does my computer have to run Windows? What about a Mac?
A: You can do all your training on a non-Windows computer like a Mac.

HTML documents are text files made up of HTML elements.

HTML elements are defined using HTML tags.

HTML Tags

- HTML tags are used to mark-up HTML **elements**
- HTML tags are surrounded by the **two characters < and >**
- The surrounding characters are called **angle brackets**
- HTML tags normally **come in pairs** like and
- The first tag in a pair is the **start tag,** the second tag is the **end tag**
- The text between the start and end tags is the **element content**
- HTML tags are **not case sensitive,** means the same as <B>

HTML Elements

Remember the HTML example from the previous page:

```
<html>
<head>
<title>Title of page</title>
</head>
<body>
This is my first homepage. <b>This text is bold</b>
</body>
</html>
```

This is an HTML element:

```
<b>This text is bold</b>
```

The HTML element starts with a **start tag**:
The **content** of the HTML element is: This text is bold
The HTML element ends with an **end tag**:

The purpose of the tag is to define an HTML element that should be displayed as bold.

This is also an HTML element:

```
<body>
This is my first homepage. <b>This text is bold</b>
</body>
```

This HTML element starts with the start tag <body>, and ends with the end tag </body>.

The purpose of the <body> tag is to define the HTML element that contains the body of the HTML document.

Why do We Use Lowercase Tags?

We have just said that HTML tags are not case sensitive: <B> means the same as <b>. If you surf the Web, you will notice that plenty of web sites use uppercase HTML tags in their source code. We always use lowercase tags. Why?

If you want to follow the latest web standards, you should always use lowercase tags. The World Wide Web Consortium (W3C) recommends lowercase tags in their HTML 4 recommendation, and XHTML (the next generation HTML) demands lowercase tags.

The most important tags in HTML are tags that define headings, paragraphs and line breaks.

The best way to learn HTML is to work with examples. We have created a very nice HTML editor for you. With this editor, you can edit the HTML source code if you like, and click on a test button to view the result.

Headings

Headings are defined with the <h1> to <h6> tags. <h1> defines the largest heading. <h6> defines the smallest heading.

```
<h1>This is a heading</h1>
<h2>This is a heading</h2>
<h3>This is a heading</h3>
<h4>This is a heading</h4>
<h5>This is a heading</h5>
<h6>This is a heading</h6>
```

HTML automatically adds an extra blank line before and after a heading.

Paragraphs

Paragraphs are defined with the tag.

```
<p>This is a paragraph</p>
<p>This is another paragraph</p>
```

HTML automatically adds an extra blank line before and after a paragraph.

Don't Forget the Closing Tag

You might have noticed that paragraphs can be written without end tags :

```
<p>This is a paragraph
<p>This is another paragraph
```

The example above will work in most browsers, but don't rely on it. Future version of HTML will not allow you to skip ANY end tags.

Closing all HTML elements with an end tag is a future-proof way of writing HTML. It also makes the code easier to understand (read and browse) when you mark both where an element starts and where it ends.

Line Breaks

The
 tag is used when you want to break a line, but don't want to start a new paragraph. The
 tag forces a line break wherever you place it.

```
<p>This <br> is a para<br>graph with line breaks</p>
```

The
 tag is an empty tag. It has no end tag like </br>, since a closing tag doesn't make any sense.

---

 or

More and more often you will see the
 tag written like this:

Because the
 tag has no end tag (or closing tag), it breaks one of the rules for future HTML (the XML based XHTML), namely that all elements must be closed.

Writing it like
 is a future proof way of closing (or ending) the tag inside the opening tag, accepted by both HTML and XML.

Comments in HTML

The comment tag is used to insert a comment in the HTML source code. A comment will be ignored by the browser. You can use comments to explain your code, which can help you when you edit the source code at a later date.

```
<!-- This is a comment -->
```

Note that you need an exclamation point after the opening bracket, but not before the closing bracket.

Recap on HTML Elements

- Each HTML element has **an element name** (body, h1, p, br)
- The **start tag is the name** surrounded by angle brackets: <h1>
- The **end tag is a slash and the name** surrounded by angle brackets </h1>
- **The element content** occurs between the start tag and the end tag
- Some HTML elements have no content
- Some HTML elements have no end tag

Basic Notes - Useful Tips

When you write HTML text, you can never be sure how the text is displayed in another browser. Some people have large computer displays, some have small. The text will be reformatted every time the user resizes his window. Never try to format the text in your editor by adding empty lines and spaces to the text.

HTML will truncate the spaces in your text. Any number of spaces count as one. Some extra information: In HTML a new line counts as one space.

Using empty paragraphs <p> to insert blank lines is a bad habit. Use the
 tag instead. (But don't use the
 tag to create lists. Wait until you have learned about HTML lists.)

HTML automatically adds an extra blank line before and after some elements, like before and after a paragraph, and before and after a heading.

We use a horizontal rule (the <hr> tag), to separate the sections in our tutorials.

Basic HTML Tags

If you lookup the basic HTML tags in the reference below, you will see that the reference contains additional information about tag attributes.

You will learn more about HTML tag attributes in the next chapter of this tutorial.

Tag	Description
<html>	Defines an HTML document
<body>	Defines the document's body
<h1> to <h6>	Defines header 1 to header 6
<p>	Defines a paragraph
 	Inserts a single line break
<hr>	Defines a horizontal rule
<!-->	Defines a comment

Attributes provide additional information to an HTML element.

HTML Tag Attributes

HTML tags can have attributes. Attributes provide additional information to an HTML element.

Attributes always come in name/value pairs like this: name="value".

Attributes are always specified in the start tag of an HTML element.

Attributes Example 1:

<h1> defines the start of a heading.

<h1 align="center"> has additional information about the alignment.

Attributes Example 2:

<body> defines the body of an HTML document.

<body bgcolor="yellow"> has additional information about the background color.

Attributes Example 3:

<table> defines an HTML table. (You will learn more about HTML tables later)

<table border="1"> has additional information about the border around the table.

Use Lowercase Attributes

Attributes and attribute values are case-insensitive. However, the World Wide Web Consortium (W3C) recommends lowercase attributes/attribute values in their HTML 4 recommendation, and XHTML demands lowercase attributes/attribute values.

Always Quote Attribute Values

Attribute values should always be enclosed in quotes. Double style quotes are the most common, but single style quotes are also allowed.

In some rare situations, like when the attribute value itself contains quotes, it is necessary to use single quotes:

name='John "ShotGun" Nelson'

HTML defines a lot of elements for formatting output, like bold or italic text.

Below are a lot of examples that you can try out yourself:

How to View HTML Source

Have you ever seen a Web page and wondered "Hey! How did they do that?"

To find out, click the VIEW option in your browser's toolbar and select SOURCE or PAGE SOURCE. This will open a window that shows you the HTML code of the page.

Text Formatting Tags

Tag	Description
<b>	Defines bold text
<big>	Defines big text
	Defines emphasized text
<i>	Defines italic text
<small>	Defines small text
	Defines strong text
<sub>	Defines subscripted text
<sup>	Defines superscripted text
<ins>	Defines inserted text
<del>	Defines deleted text
<s>	Deprecated. Use <del> instead
<strike>	Deprecated. Use <del> instead
<u>	Deprecated. Use styles instead

Some characters like the < character, have a special meaning in HTML, and therefore cannot be used in the text.

To display a less than sign (<) in HTML, we have to use a character entity.

Character Entities

Some characters have a special meaning in HTML, like the less than sign (<) that defines the start of an HTML tag. If we want the browser to actually display these characters we must insert character entities in the HTML source.

A character entity has three parts: an ampersand (&), an entity name or a # and an entity number, and finally a semicolon (;).

To display a less than sign in an HTML document we must write: **<** or **<**

The advantage of using a name instead of a number is that a name is easier to remember. The disadvantage is that not all browsers support the newest entity names, while the support for entity numbers is very good in almost all browsers.

Note that the entities are case sensitive.

This example lets you experiment with character entities: Character Entities

---

Non-breaking Space

The most common character entity in HTML is the non-breaking space.

Normally HTML will truncate spaces in your text. If you write 10 spaces in your text HTML will remove 9 of them. To add spaces to your text, use the   character entity.

The Most Common Character Entities:

Result	Description	Entity Name	Entity Number
	non-breaking space		
<	less than	<	<
>	greater than	>	>
&	ampersand	&	&
"	quotation mark	"	"
'	apostrophe	' (does not work in IE)	'

Some Other Commonly Used Character Entities:

Result	Description	Entity Name	Entity Number
¢	cent	¢	¢
£	pound	£	£
¥	yen	¥	¥
€	euro	€	€
§	section	§	§
©	copyright	©	©
®	registered trademark	®	®
×	multiplication	×	×

÷	division	÷	÷

To see a full list of HTML character entities go to our HTML Entities Reference.

HTML uses a hyperlink to link to another document on the Web.

The Anchor Tag and the href Attribute

HTML uses the <a> (anchor) tag to create a link to another document.

An anchor can point to any resource on the Web: an HTML page, an image, a sound file, a movie, etc.

The syntax of creating an anchor:

```
<a href="url">Text to be displayed</a>
```

The <a> tag is used to create an anchor to link from, the href attribute is used to address the document to link to, and the words between the open and close of the anchor tag will be displayed as a hyperlink.

This anchor defines a link to W3Schools:

```
<a href="http://www.w3schools.com/">Visit W3Schools!</a>
```

The Target Attribute

With the target attribute, you can define **where** the linked document will be opened.

The line below will open the document in a new browser window:

```
<a href="http://www.w3schools.com/"
target="_blank">Visit W3Schools!</a>
```

The Anchor Tag and the Name Attribute

The name attribute is used to create a named anchor. When using named anchors we can create links that can jump directly into a specific section on a page, instead of letting the user scroll around to find what he/she is looking for.

Below is the syntax of a named anchor:

```
<a name="label">Text to be displayed</a>
```

The name attribute is used to create a named anchor. The name of the anchor can be any text you care to use.

The line below defines a named anchor:

```
<a name="tips">Useful Tips Section</a>
```

You should notice that a named anchor is not displayed in a special way.

To link directly to the "tips" section, add a # sign and the name of the anchor to the end of a URL, like this:

```
<a href="http://www.w3schools.com/html_links.asp#tips">
Jump to the Useful Tips Section</a>
```

A hyperlink to the Useful Tips Section from WITHIN the file "html_links.asp" will look like this:

```
<a href="#tips">Jump to the Useful Tips Section</a>
```

Basic Notes - Useful Tips

Always add a trailing slash to subfolder references. If you link like this: href="http://www.w3schools.com/html", you will generate two HTTP requests to the server, because the server will add a slash to the address and create a new request like this: href="http://www.w3schools.com/html/"

Named anchors are often used to create "table of contents" at the beginning of a large document. Each chapter within the document is given a named anchor, and links to each of these anchors are put at the top of the document.

If a browser cannot find a named anchor that has been specified, it goes to the top of the document. No error occurs.

Link Tags

Tag	Description
<a>	Defines an anchor

Frames

With frames, you can display more than one HTML document in the same browser window. Each HTML document is called a frame, and each frame is independent of the others.

The disadvantages of using frames are:

- The web developer must keep track of more HTML documents
- It is difficult to print the entire page

The Frameset Tag

- The <frameset> tag defines how to divide the window into frames
- Each frameset defines a set of rows **or** columns
- The values of the rows/columns indicate the amount of screen area each row/column will occupy

---

The Frame Tag

- The <frame> tag defines what HTML document to put into each frame

In the example below we have a frameset with two columns. The first column is set to 25% of the width of the browser window. The second column is set to 75% of the width of the browser window. The HTML document "frame_a.htm" is put into the first column, and the HTML document "frame_b.htm" is put into the second column:

```
<frameset cols="25%,75%">
   <frame src="frame_a.htm">
   <frame src="frame_b.htm">
</frameset>
```

Note: The frameset column size value can also be set in pixels (cols="200,500"), and one of the columns can be set to use the remaining space (cols="25%,*").

Basic Notes - Useful Tips

If a frame has visible borders, the user can resize it by dragging the border. To prevent a user from doing this, you can add noresize="noresize" to the <frame> tag.

Add the <noframes> tag for browsers that do not support frames.

Important: You cannot use the <body></body> tags together with the <frameset></frameset> tags! However, if you add a <noframes> tag containing some text for browsers that do not support frames, you will have to enclose the text in <body></body> tags! See how it is done in the first example below.

Frame Tags

Tag	Description
<frameset>	Defines a set of frames
<frame>	Defines a sub window (a frame)
<noframes>	Defines a noframe section for browsers that do not handle frames
<iframe>	Defines an inline sub window (frame)

Tables

Tables are defined with the <table> tag. A table is divided into rows (with the <tr> tag), and each row is divided into data cells (with the <td> tag). The letters td stands for "table data," which is the content of a data cell. A data cell can contain text, images, lists, paragraphs, forms, horizontal rules, tables, etc.

```
<table border="1">
<tr>
<td>row 1, cell 1</td>
<td>row 1, cell 2</td>
</tr>
<tr>
<td>row 2, cell 1</td>
<td>row 2, cell 2</td>
</tr>
</table>
```

How it looks in a browser:

row 1, cell 1	row 1, cell 2
row 2, cell 1	row 2, cell 2

Tables and the Border Attribute

If you do not specify a border attribute the table will be displayed without any borders. Sometimes this can be useful, but most of the time, you want the borders to show.

To display a table with borders, you will have to use the border attribute:

```
<table border="1">
<tr>
<td>Row 1, cell 1</td>
<td>Row 1, cell 2</td>
</tr>
</table>
```

Headings in a Table

Headings in a table are defined with the <th> tag.

```
<table border="1">
<tr>
<th>Heading</th>
<th>Another Heading</th>
</tr>
<tr>
<td>row 1, cell 1</td>
<td>row 1, cell 2</td>
</tr>
<tr>
<td>row 2, cell 1</td>
<td>row 2, cell 2</td>
</tr>
</table>
```

How it looks in a browser:

Heading	Another Heading
row 1, cell 1	row 1, cell 2
row 2, cell 1	row 2, cell 2

Empty Cells in a Table

Table cells with no content are not displayed very well in most browsers.

```
<table border="1">
<tr>
<td>row 1, cell 1</td>
<td>row 1, cell 2</td>
</tr>
<tr>
<td>row 2, cell 1</td>
<td></td>
</tr>
</table>
```

How it looks in a browser:

row 1, cell 1	row 1, cell 2
row 2, cell 1	

Note that the borders around the empty table cell are missing (NB! Mozilla Firefox displays the border).

To avoid this, add a non-breaking space ( ) to empty data cells, to make the borders visible:

```
<table border="1">
<tr>
<td>row 1, cell 1</td>
<td>row 1, cell 2</td>
</tr>
<tr>
<td>row 2, cell 1</td>
<td> </td>
</tr>
</table>
```

How it looks in a browser:

row 1, cell 1	row 1, cell 2
row 2, cell 1	

Basic Notes - Useful Tips

The <thead>,<tbody> and <tfoot> elements are seldom used, because of bad browser support. Expect this to change in future versions of XHTML. If you have Internet Explorer 5.0 or newer, you can view a working example in our XML tutorial.

Table Tags

Tag	Description
<table>	Defines a table
<th>	Defines a table header
<tr>	Defines a table row
<td>	Defines a table cell
<caption>	Defines a table caption
<colgroup>	Defines groups of table columns
<col>	Defines the attribute values for one or more columns in a table
<thead>	Defines a table head
<tbody>	Defines a table body
<tfoot>	Defines a table footer

HTML Lists

HTML supports ordered, unordered and definition lists.

Unordered Lists

An unordered list is a list of items. The list items are marked with bullets (typically small black circles).

An unordered list starts with the <ul> tag. Each list item starts with the <li> tag.

```
<ul>
<li>Coffee</li>
<li>Milk</li>
</ul>
```

Here is how it looks in a browser:

- Coffee
- Milk

Inside a list item you can put paragraphs, line breaks, images, links, other lists, etc.

Ordered Lists

An ordered list is also a list of items. The list items are marked with numbers.

An ordered list starts with the <ol> tag. Each list item starts with the <li> tag.

```
<ol>
<li>Coffee</li>
<li>Milk</li>
</ol>
```

Here is how it looks in a browser:

1. Coffee
2. Milk

Inside a list item you can put paragraphs, line breaks, images, links, other lists, etc.

Definition Lists

A definition list is **not** a list of items. This is a list of terms and explanation of the terms.

A definition list starts with the <dl> tag. Each definition-list term starts with the <dt> tag. Each definition-list definition starts with the <dd> tag.

```
<dl>
<dt>Coffee</dt>
<dd>Black hot drink</dd>
<dt>Milk</dt>
<dd>White cold drink</dd>
</dl>
```

Here is how it looks in a browser:

Coffee
: Black hot drink

Milk
: White cold drink

Inside a definition-list definition (the <dd> tag) you can put paragraphs, line breaks, images, links, other lists, etc.

List Tags

Tag	Description
	Defines an ordered list
	Defines an unordered list

	Defines a list item
<dl>	Defines a definition list
<dt>	Defines a definition term
<dd>	Defines a definition description
<dir>	Deprecated. Use instead
<menu>	Deprecated. Use instead

HTML Forms and Input

HTML Forms are used to select different kinds of user input.

Input

The most used form tag is the <input> tag. The type of input is specified with the type attribute. The most commonly used input types are explained below.

Text Fields

Text fields are used when you want the user to type letters, numbers, etc. in a form.

```
<form>
First name:
<input type="text" name="firstname">
<br>
Last name:
<input type="text" name="lastname">
</form>
```

How it looks in a browser:

First name:
Last name:

Note that the form itself is not visible. Also note that in most browsers, the width of the text field is 20 characters by default.

Radio Buttons

Radio Buttons are used when you want the user to select one of a limited number of choices.

```
<form>
```

```
<input type="radio" name="sex" value="male"> Male
<br>
<input type="radio" name="sex" value="female"> Female
</form>
```

How it looks in a browser:

Male
Female

Note that only one option can be chosen.

Checkboxes

Checkboxes are used when you want the user to select one or more options of a limited number of choices.

```
<form>
I have a bike:
<input type="checkbox" name="vehicle" value="Bike">
<br>
I have a car:
<input type="checkbox" name="vehicle" value="Car">
<br>
I have an airplane:
<input type="checkbox" name="vehicle" value="Airplane">
</form>
```

How it looks in a browser:

I have a bike:
I have a car:
I have an airplane:

The Form's Action Attribute and the Submit Button

When the user clicks on the "Submit" button, the content of the form is sent to another file. The form's action attribute defines the name of the file to send the content to. The file defined in the action attribute usually does something with the received input.

```
<form name="input" action="html_form_action.asp"
method="get">
Username:
<input type="text" name="user">
<input type="submit" value="Submit">
</form>
```

How it looks in a browser:

Username: Submit

If you type some characters in the text field above, and click the "Submit" button, you will send your input to a page called "html_form_action.asp". That page will show you the received input.

Form Tags

Tag	Description
<form>	Defines a form for user input
<input>	Defines an input field
<textarea>	Defines a text-area (a multi-line text input control)
<label>	Defines a label to a control
<fieldset>	Defines a fieldset
<legend>	Defines a caption for a fieldset
<select>	Defines a selectable list (a drop-down box)
<optgroup>	Defines an option group
<option>	Defines an option in the drop-down box
<button>	Defines a push button
<isindex>	Deprecated. Use <input> instead

HTML Images

With HTML you can display images in a document.

The Image Tag and the Src Attribute

In HTML, images are defined with the <img> tag.

The <img> tag is empty, which means that it contains attributes only and it has no closing tag.

To display an image on a page, you need to use the src attribute. Src stands for "source". The value of the src attribute is the URL of the image you want to display on your page.

The syntax of defining an image:

```
<img src="url">
```

The URL points to the location where the image is stored. An image named "boat.gif" located in the directory "images" on "www.w3schools.com" has the URL: http://www.w3schools.com/images/boat.gif.

The browser puts the image where the image tag occurs in the document. If you put an image tag between two paragraphs, the browser shows the first paragraph, then the image, and then the second paragraph.

The Alt Attribute

The alt attribute is used to define an "alternate text" for an image. The value of the alt attribute is an author-defined text:

```
<img src="boat.gif" alt="Big Boat">
```

The "alt" attribute tells the reader what he or she is missing on a page if the browser can't load images. The browser will then display the alternate text instead of the image. It is a good practice to include the "alt" attribute for each image on a page, to improve the display and usefulness of your document for people who have text-only browsers.

Basic Notes - Useful Tips

If an HTML file contains ten images - eleven files are required to display the page right. Loading images take time, so my best advice is: Use images carefully.

Image Tags

Tag	Description
<img>	Defines an image
<map>	Defines an image map
<area>	Defines a clickable area inside an image map

HTML Backgrounds

A good background can make a Web site look really great.

Backgrounds

The <body> tag has two attributes where you can specify backgrounds. The background can be a color or an image.

Bgcolor

The bgcolor attribute specifies a background-color for an HTML page. The value of this attribute can be a hexadecimal number, an RGB value, or a color name:

```
<body bgcolor="#000000">
<body bgcolor="rgb(0,0,0)">
<body bgcolor="black">
```

The lines above all set the background-color to black.

Background

The background attribute specifies a background-image for an HTML page. The value of this attribute is the URL of the image you want to use. If the image is smaller than the browser window, the image will repeat itself until it fills the entire browser window.

```
<body background="clouds.gif">
<body background="http://www.w3schools.com/clouds.gif">
```

The URL can be relative (as in the first line above) or absolute (as in the second line above).

Note: If you want to use a background image, you should keep in mind:

- Will the background image increase the loading time too much?
- Will the background image look good with other images on the page?
- Will the background image look good with the text colors on the page?
- Will the background image look good when it is repeated on the page?
- Will the background image take away the focus from the text?

Basic Notes - Useful Tips

The bgcolor, background, and the text attributes in the <body> tag are deprecated in the latest versions of HTML (HTML 4 and XHTML). The World Wide Web Consortium (W3C) has removed these attributes from its recommendations.

Style sheets (CSS) should be used instead (to define the layout and display properties of HTML elements).

HTML Colors

Colors are displayed combining RED, GREEN, and BLUE light sources.

Color Values

HTML colors can be defined as a hexadecimal notation for the combination of Red, Green, and Blue color values (RGB).

The lowest value that can be given to one light source is 0 (hex #00) and the highest value is 255 (hex #FF).

The table below shows the result of combining Red, Green, and Blue light sources:.

Color	Color HEX	Color RGB
	#000000	rgb(0,0,0)
	#FF0000	rgb(255,0,0)
	#00FF00	rgb(0,255,0)
	#0000FF	rgb(0,0,255)
	#FFFF00	rgb(255,255,0)
	#00FFFF	rgb(0,255,255)
	#FF00FF	rgb(255,0,255)
	#C0C0C0	rgb(192,192,192)
	#FFFFFF	rgb(255,255,255)

Standard Color Names

W3C has listed 16 color names that will validate with an HTML validator.

The color names are: aqua, black, blue, fuchsia, gray, green, lime, maroon, navy, olive, purple, red, silver, teal, white, and yellow.

Cross-browser Color Values

Some years ago, when most computers only supported 256 different colors, a list of 216 Web Safe Colors was suggested as a Web standard. The reason for this was that the

Microsoft and Mac operating system used 40 different "reserved" fixed system colors (about 20 each).

We are not sure how important this is now, since most computers today have the ability to display millions of different colors, but the choice is left to you.

The 216 cross-browser color palette was created to ensure that all computers would display the colors correctly when running a 256 color palette:

000000	000033	000066	000099	0000CC	0000FF
003300	003333	003366	003399	0033CC	0033FF
006600	006633	006666	006699	0066CC	0066FF
009900	009933	009966	009999	0099CC	0099FF
00CC00	00CC33	00CC66	00CC99	00CCCC	00CCFF
00FF00	00FF33	00FF66	00FF99	00FFCC	00FFFF
330000	330033	330066	330099	3300CC	3300FF
333300	333333	333366	333399	3333CC	3333FF
336600	336633	336666	336699	3366CC	3366FF
339900	339933	339966	339999	3399CC	3399FF
33CC00	33CC33	33CC66	33CC99	33CCCC	33CCFF
33FF00	33FF33	33FF66	33FF99	33FFCC	33FFFF
660000	660033	660066	660099	6600CC	6600FF
663300	663333	663366	663399	6633CC	6633FF
666600	666633	666666	666699	6666CC	6666FF
669900	669933	669966	669999	6699CC	6699FF
66CC00	66CC33	66CC66	66CC99	66CCCC	66CCFF
66FF00	66FF33	66FF66	66FF99	66FFCC	66FFFF
990000	990033	990066	990099	9900CC	9900FF
993300	993333	993366	993399	9933CC	9933FF
996600	996633	996666	996699	9966CC	9966FF
999900	999933	999966	999999	9999CC	9999FF
99CC00	99CC33	99CC66	99CC99	99CCCC	99CCFF
99FF00	99FF33	99FF66	99FF99	99FFCC	99FFFF
CC0000	CC0033	CC0066	CC0099	CC00CC	CC00FF
CC3300	CC3333	CC3366	CC3399	CC33CC	CC33FF
CC6600	CC6633	CC6666	CC6699	CC66CC	CC66FF
CC9900	CC9933	CC9966	CC9999	CC99CC	CC99FF

CCCC00	CCCC33	CCCC66	CCCC99	CCCCCC	CCCCFF
CCFF00	CCFF33	CCFF66	CCFF99	CCFFCC	CCFFFF
FF0000	FF0033	FF0066	FF0099	FF00CC	FF00FF
FF3300	FF3333	FF3366	FF3399	FF33CC	FF33FF
FF6600	FF6633	FF6666	FF6699	FF66CC	FF66FF
FF9900	FF9933	FF9966	FF9999	FF99CC	FF99FF
FFCC00	FFCC33	FFCC66	FFCC99	FFCCCC	FFCCFF
FFFF00	FFFF33	FFFF66	FFFF99	FFFFCC	FFFFFF

HTML Color Values

Colors are displayed combining RED, GREEN, and BLUE light sources.

Color Values

HTML colors are defined using a hexadecimal notation for the combination of Red, Green, and Blue color values (RGB). The lowest value that can be given to one of the light sources is 0 (hex #00). The highest value is 255 (hex #FF).

Turn Off the Red

If you turn off the Red light completely, there are 65536 different combination of Green and Blue (256 x 256) to experiment with.

Turn On the Red

By setting the Red parameter to its maximum value, there are still 65536 different combination of Green and Blue (256 x 256) to experiment with.

---

16 Million Different Colors

The combination of Red, Green and Blue values from 0 to 255 gives a total of more than 16 million different colors to play with (256 x 256 x 256).

Most modern monitors are capable of displaying at least 16384 different colors.

If you look at the color table below, you will see the result of varying the red light from 0 to 255, while keeping the green and blue light at zero.

To see a full list of 16384 different colors based on red light varying from 0 to 255, click on one of the hexadecimal or rgb values below.

Red Light	HEX	RGB
	#000000	rgb(0,0,0)
	#080000	rgb(8,0,0)
	#100000	rgb(16,0,0)
	#180000	rgb(24,0,0)
	#200000	rgb(32,0,0)
	#280000	rgb(40,0,0)
	#300000	rgb(48,0,0)
	#380000	rgb(56,0,0)
	#400000	rgb(64,0,0)
	#480000	rgb(72,0,0)
	#500000	rgb(80,0,0)
	#580000	rgb(88,0,0)
	#600000	rgb(96,0,0)
	#680000	rgb(104,0,0)
	#700000	rgb(112,0,0)
	#780000	rgb(120,0,0)
	#800000	rgb(128,0,0)
	#880000	rgb(136,0,0)
	#900000	rgb(144,0,0)
	#980000	rgb(152,0,0)
	#A00000	rgb(160,0,0)
	#A80000	rgb(168,0,0)
	#B00000	rgb(176,0,0)
	#B80000	rgb(184,0,0)
	#C00000	rgb(192,0,0)
	#C80000	rgb(200,0,0)
	#D00000	rgb(208,0,0)
	#D80000	rgb(216,0,0)
	#E00000	rgb(224,0,0)
	#E80000	rgb(232,0,0)

	#F00000	rgb(240,0,0)
	#F80000	rgb(248,0,0)
	#FF0000	rgb(255,0,0)

Shades of Gray

Gray colors are displayed using an equal amount of power to all of the light sources. To make it easier for you to select the right gray color we have compiled a table of gray shades for you:

	RGB(0,0,0)	#000000
	RGB(8,8,8)	#080808
	RGB(16,16,16)	#101010
	RGB(24,24,24)	#181818
	RGB(32,32,32)	#202020
	RGB(40,40,40)	#282828
	RGB(48,48,48)	#303030
	RGB(56,56,56)	#383838
	RGB(64,64,64)	#404040
	RGB(72,72,72)	#484848
	RGB(80,80,80)	#505050
	RGB(88,88,88)	#585858
	RGB(96,96,96)	#606060
	RGB(104,104,104)	#686868
	RGB(112,112,112)	#707070
	RGB(120,120,120)	#787878
	RGB(128,128,128)	#808080
	RGB(136,136,136)	#888888
	RGB(144,144,144)	#909090
	RGB(152,152,152)	#989898
	RGB(160,160,160)	#A0A0A0
	RGB(168,168,168)	#A8A8A8
	RGB(176,176,176)	#B0B0B0
	RGB(184,184,184)	#B8B8B8
	RGB(192,192,192)	#C0C0C0
	RGB(200,200,200)	#C8C8C8
	RGB(208,208,208)	#D0D0D0

	RGB(216,216,216)	#D8D8D8
	RGB(224,224,224)	#E0E0E0
	RGB(232,232,232)	#E8E8E8
	RGB(240,240,240)	#F0F0F0
	RGB(248,248,248)	#F8F8F8
	RGB(255,255,255)	#FFFFFF

HTML Color Names

Previous Next

HTML Color Names

The table below provides a list of the color names that are supported by all major browsers.

Note: If you want your pages to validate with an HTML or a CSS validator, W3C has listed 16 color names that you can use: aqua, black, blue, fuchsia, gray, green, lime, maroon, navy, olive, purple, red, silver, teal, white, and yellow. If you want to use other colors, you must specify their RGB or HEX value.

Click on a color name (or a hex value) to view the color as the background-color along with different text colors:

Color Name	Color HEX	Color
AliceBlue	#F0F8FF	
AntiqueWhite	#FAEBD7	
Aqua	#00FFFF	
Aquamarine	#7FFFD4	
Azure	#F0FFFF	
Beige	#F5F5DC	
Bisque	#FFE4C4	
Black	#000000	
BlanchedAlmond	#FFEBCD	
Blue	#0000FF	
BlueViolet	#8A2BE2	
Brown	#A52A2A	
BurlyWood	#DEB887	

CadetBlue	#5F9EA0	
Chartreuse	#7FFF00	
Chocolate	#D2691E	
Coral	#FF7F50	
CornflowerBlue	#6495ED	
Cornsilk	#FFF8DC	
Crimson	#DC143C	
Cyan	#00FFFF	
DarkBlue	#00008B	
DarkCyan	#008B8B	
DarkGoldenRod	#B8860B	
DarkGray	#A9A9A9	
DarkGrey	#A9A9A9	
DarkGreen	#006400	
DarkKhaki	#BDB76B	
DarkMagenta	#8B008B	
DarkOliveGreen	#556B2F	
Darkorange	#FF8C00	
DarkOrchid	#9932CC	
DarkRed	#8B0000	
DarkSalmon	#E9967A	
DarkSeaGreen	#8FBC8F	
DarkSlateBlue	#483D8B	
DarkSlateGray	#2F4F4F	
DarkSlateGrey	#2F4F4F	
DarkTurquoise	#00CED1	
DarkViolet	#9400D3	
DeepPink	#FF1493	
DeepSkyBlue	#00BFFF	
DimGray	#696969	
DimGrey	#696969	
DodgerBlue	#1E90FF	
FireBrick	#B22222	
FloralWhite	#FFFAF0	
ForestGreen	#228B22	
Fuchsia	#FF00FF	
Gainsboro	#DCDCDC	
GhostWhite	#F8F8FF	

Gold	#FFD700	
GoldenRod	#DAA520	
Gray	#808080	
Grey	#808080	
Green	#008000	
GreenYellow	#ADFF2F	
HoneyDew	#F0FFF0	
HotPink	#FF69B4	
IndianRed	#CD5C5C	
Indigo	#4B0082	
Ivory	#FFFFF0	
Khaki	#F0E68C	
Lavender	#E6E6FA	
LavenderBlush	#FFF0F5	
LawnGreen	#7CFC00	
LemonChiffon	#FFFACD	
LightBlue	#ADD8E6	
LightCoral	#F08080	
LightCyan	#E0FFFF	
LightGoldenRodYellow	#FAFAD2	
LightGray	#D3D3D3	
LightGrey	#D3D3D3	
LightGreen	#90EE90	
LightPink	#FFB6C1	
LightSalmon	#FFA07A	
LightSeaGreen	#20B2AA	
LightSkyBlue	#87CEFA	
LightSlateGray	#778899	
LightSlateGrey	#778899	
LightSteelBlue	#B0C4DE	
LightYellow	#FFFFE0	
Lime	#00FF00	
LimeGreen	#32CD32	
Linen	#FAF0E6	
Magenta	#FF00FF	
Maroon	#800000	
MediumAquaMarine	#66CDAA	
MediumBlue	#0000CD	

MediumOrchid	#BA55D3	
MediumPurple	#9370D8	
MediumSeaGreen	#3CB371	
MediumSlateBlue	#7B68EE	
MediumSpringGreen	#00FA9A	
MediumTurquoise	#48D1CC	
MediumVioletRed	#C71585	
MidnightBlue	#191970	
MintCream	#F5FFFA	
MistyRose	#FFE4E1	
Moccasin	#FFE4B5	
NavajoWhite	#FFDEAD	
Navy	#000080	
OldLace	#FDF5E6	
Olive	#808000	
OliveDrab	#6B8E23	
Orange	#FFA500	
OrangeRed	#FF4500	
Orchid	#DA70D6	
PaleGoldenRod	#EEE8AA	
PaleGreen	#98FB98	
PaleTurquoise	#AFEEEE	
PaleVioletRed	#D87093	
PapayaWhip	#FFEFD5	
PeachPuff	#FFDAB9	
Peru	#CD853F	
Pink	#FFC0CB	
Plum	#DDA0DD	
PowderBlue	#B0E0E6	
Purple	#800080	
Red	#FF0000	
RosyBrown	#BC8F8F	
RoyalBlue	#4169E1	
SaddleBrown	#8B4513	
Salmon	#FA8072	
SandyBrown	#F4A460	
SeaGreen	#2E8B57	
SeaShell	#FFF5EE	

Sienna	#A0522D	
Silver	#C0C0C0	
SkyBlue	#87CEEB	
SlateBlue	#6A5ACD	
SlateGray	#708090	
SlateGrey	#708090	
Snow	#FFFAFA	
SpringGreen	#00FF7F	
SteelBlue	#4682B4	
Tan	#D2B48C	
Teal	#008080	
Thistle	#D8BFD8	
Tomato	#FF6347	
Turquoise	#40E0D0	
Violet	#EE82EE	
Wheat	#F5DEB3	
White	#FFFFFF	
WhiteSmoke	#F5F5F5	
Yellow	#FFFF00	
YellowGreen	#9ACD32	

HTML 4.01 Quick List

HTML Basic Document

```
<html>
<head>
<title>Document name goes here</title>
</head>

<body>
Visible text goes here
</body>

</html>
```

Heading Elements

```
<h1>Largest Heading</h1>

<h2> . . . </h2>
<h3> . . . </h3>
```

<h4> . . . </h4>
<h5> . . . </h5>

<h6>Smallest Heading</h6>

Text Elements

This is a paragraph

 (line break)
<hr> (horizontal rule)
<pre>This text is preformatted</pre>

Logical Styles

This text is emphasized
This text is strong
<code>This is some computer code</code>

Physical Styles

This text is bold
This text is italic

Links, Anchors, and Image Elements

This is a Link
<img src="URL" alt="Alternate Text">
Send e-mail

A named anchor:
Useful Tips Section
Jump to the Useful Tips Section

Unordered list

First item
Next item

Ordered list

First item
Next item

Definition list

<dl>
<dt>First term</dt>
<dd>Definition</dd>

```
<dt>Next term</dt>
<dd>Definition</dd>
</dl>
```

Tables

```
<table border="1">
<tr>
<th>someheader</th>
<th>someheader</th>
</tr>
<tr>
<td>sometext</td>
<td>sometext</td>
</tr>
</table>
```

Frames

```
<frameset cols="25%,75%">
  <frame src="page1.htm">
  <frame src="page2.htm">
</frameset>
```

Forms

```
<form action="http://www.example.com/test.asp" method="post/get">

<input type="text" name="lastname" value="Nixon" size="30" maxlength="50">
<input type="password">
<input type="checkbox" checked="checked">
<input type="radio" checked="checked">
<input type="submit">
<input type="reset">
<input type="hidden">

<select>
<option>Apples
<option selected>Bananas
<option>Cherries
</select>

<textarea name="Comment" rows="60" cols="20"></textarea>

</form>
```

Entities

< is the same as <
> is the same as >
© is the same as ©

Other Elements

<!-- This is a comment -->

<blockquote>
Text quoted from some source.
</blockquote>

<address>
Address 1
Address 2
City
</address>

HTML Layout

Everywhere on the Web you will find pages that are formatted like newspaper pages using HTML columns.

HTML Layout - Using Tables

One very common practice with HTML, is to use HTML tables to format the layout of an HTML page.

A part of this page is formatted with two columns, like a newspaper page.

As you can see on this page, there is a left column and a right column.

This text is displayed in the left column.

An HTML <table> is used to divide a part of this Web page into two columns.

The trick is to use a table without borders, and maybe a little extra cell-padding.

No matter how much text you add to this page, it will stay inside its column borders.

Same Layout - Color Added

One very common practice with HTML, is to use HTML tables to format the layout of an HTML page.

A part of this page is formatted with two columns, like a newspaper page.

As you can see at this page, there is a left column and a right column.

An HTML <table> is used to divide a part of this Web page into two columns.

This text is displayed in the right column.

The trick is to use a table without borders, and maybe a little extra cell-padding.

No matter how much text you add to this page, it will stay inside its column borders.

HTML Fonts

The <font> tag in HTML is deprecated. It is supposed to be removed in a future version of HTML.

Even if a lot of people are using it, you should try to avoid it, and use styles instead.

The HTML <font> Tag

With HTML code like this, you can specify both the size and the type of the browser output :

```
<p>
<font size="2" face="Verdana">
This is a paragraph.
</font>
</p>
<p>
<font size="3" face="Times">
This is another paragraph.
</font>
</p>
```

Font Attributes

Attribute	Example	Purpose
size="number"	size="2"	Defines the font size
size="+number"	size="+1"	Increases the font size
size="-number"	size="-1"	Decreases the font size
face="face-name"	face="Times"	Defines the font-name

color="color-value"	color="#eeff00"	Defines the font color
color="color-name"	color="red"	Defines the font color