HTML TUTORIAL

What is HTML?

HTML is a language for describing web pages.

- HTML stands for Hyper Text Markup Language
- HTML is not a programming language, it is a markup language
- A markup language is a set of markup tags
- · HTML uses markup tags to describe web pages

HTML Tags

HTML markup tags are usually called HTML tags

- HTML tags are keywords surrounded by angle brackets like <html>
- 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
- Start and end tags are also called opening tags and closing tags

HTML Documents = Web Pages

- HTML documents describe web pages
- · HTML documents contain HTML tags and plain text
- HTML documents are also called web pages

The purpose of a web browser (like Internet Explorer or Firefox) is to read HTML documents and display them as web pages. The browser does not display the HTML tags, but uses the tags to interpret the content of the page:

```
<html>
<body>
<h1>My First Heading</h1>
My first paragraph.
</body>
</html>
```

Example Explained

- The text between <html> and </html> describes the web page
- The text between <body> and </body> is the visible page content
- The text between <h1> and </h1> is displayed as a heading
- The text between and is displayed as a paragraph

Editing HTML

HTML can be written and edited using many different editors like Dreamweaver and Visual Studio.

However, in this tutorial we use a plain text editor (like Notepad) to edit HTML. We believe using a plain text editor is the best way to learn HTML.

.HTM or .HTML File Extension?

When you save an HTML file, you can use either the .htm or the .html file extension. There is no difference; it is entirely up to you.

HTML Headings

HTML headings are defined with the <h1> to <h6> tags.

Example

```
<h1>This is a heading</h1>
```

HTML Paragraphs

HTML paragraphs are defined with the tag.

Example

```
This is a paragraph.
This is another paragraph.
```

<h2>This is a heading</h2>

<h3>This is a heading</h3>

HTML Links

HTML links are defined with the <a> tag.

Example

This is a link

Note: The link address is specified in the href attribute.

(You will learn about attributes in a later chapter of this tutorial).

HTML Images

HTML images are defined with the tag.

Example

Note: The name and the size of the image are provided as attributes.

HTML Elements

An HTML element is everything from the start tag to the end tag:

Start tag *	Element content		End tag *
	This is a paragraph		
<a href="default.htm</td><td>"> This is a link			

^{*} The start tag is often called the opening tag. The end tag is often called the closing tag.

HTML Element Syntax

- · An HTML element starts with a start tag / opening tag
- . An HTML element ends with an end tag / closing tag
- . The element content is everything between the start and the end tag
- · Some HTML elements have empty content
- · Empty elements are closed in the start tag
- · Most HTML elements can have attributes

Tip: You will learn about attributes in the next chapter of this tutorial.

Nested HTML Elements

Most HTML elements can be nested (can contain other HTML elements).

HTML documents consist of nested HTML elements.

HTML Document Example

```
<html>
<body>
This is my first paragraph.
</body>
</html>
```

The example above contains 3 HTML elements.

HTML Example Explained

The element:

```
This is my first paragraph.
```

The element defines a paragraph in the HTML document. The element has a start tag and an end tag . The element content is: This is my first paragraph.

The <body> element:

```
<br/>
<br/>
This is my first paragraph.
</body>
```

The
body> element defines the body of the HTML document.

The element has a start tag
body> and an end tag </body>.

The element content is another HTML element (a p element).

The <html> element:

```
<html>
<body>
This is my first paragraph.
</body>
</html>
```

The <html> element defines the whole HTML document.
The element has a start tag <html> and an end tag </html>.
The element content is another HTML element (the body element).

Don't Forget the End Tag

Some HTML elements might display correctly even if you forget the end tag:

```
This is a paragraph
This is a paragraph
```

The example above works in most browsers, because the closing tag is considered optional.

Never rely on this, Many HTML elements will produce unexpected results and/or errors if you forget the end tag.

Empty HTML Elements

HTML elements with no content are called empty elements.

br> is an empty element without a closing tag (the
br> tag defines a line break).

Tip: In XHTML, all elements must be closed. Adding a slash inside the start tag, like
br />, is the proper way of closing empty elements in XHTML (and XML).

HTML Tip: Use Lowercase Tags

HTML tags are not case sensitive: <P> means the same as . Many web sites use uppercase HTML tags.

HTML Attributes

- HTML elements can have attributes
- Attributes provide additional information about an element
- Attributes are always specified in the start tag
- Attributes come in name/value pairs like: name="value"

Attribute Example

HTML links are defined with the <a> tag. The link address is specified in the href attribute:

Example

This is a link

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.

Tip: In some rare situations, when the attribute value itself contains quotes, it is necessary to use single quotes: name='John "ShotGun" Nelson'

HTML Tip: Use Lowercase Attributes

Attribute names and attribute values are ease-insensitive.

Newer versions of (X)HTML will demand lowercase attributes.

HTML Attributes Reference

A complete list of legal attributes for each HTML element is listed in our:

Below is a list of some attributes that are standard for most HTML elements:

Attribute	Value	Description
class	classname	Specifies a classname for an element
id	id	Specifies a unique id for an element
style	style_definition	Specifies an inline style for an element
title	tooltip_text	Specifies extra information about an element (displayed as a tool tip)

For more information about standard attributes:

HTML Headings

Headings are defined with the <h1> to <h6> tags.

<h1> defines the most important heading. <h6> defines the least important heading.

Example

```
<h1>This is a heading</h1>
```

<h2>This is a heading</h2>

<h3>This is a heading</h3>

Note: Browsers automatically add some empty space (a margin) before and after each heading.

Headings Are Important

Use HTML headings for headings only. Don't use headings to make text BIG or bold.

Search engines use your headings to index the structure and content of your web pages.

Since users may skim your pages by its headings, it is important to use headings to show the document structure.

H1 headings should be used as main headings, followed by H2 headings, then the less important H3 headings, and so on.

HTML Lines

The <hr /> tag creates a horizontal line in an HTML page.

The hr element can be used to separate content:

Example

```
This is a paragraph
<hr />
This is a paragraph
<hr />
This is a paragraph
<hr />
This is a paragraph
```

HTML Comments

Comments can be inserted into the HTML code to make it more readable and understandable. Comments are ignored by the browser and are not displayed.

Comments are written like this:

Example

<!-- This is a comment -->

Note: There is an exclamation point after the opening bracket, but not before the closing bracket.

HTML Tip - How to View HTML Source

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

To find out, right-click in the page and select "View Source" (IE) or "View Page Source" (Firefox), or similar for other browsers. This will open a window containing the HTML code of the page.

HTML Tag Reference

You will learn more about HTML tags and attributes in the next chapters of this tutorial.

Tag	Description
<html></html>	Defines an HTML document
 body>	Defines the document's body
<h1> to <h6></h6></h1>	Defines HTML headings
≤hr /≥	Defines a horizontal line
	Defines a comment

HTML Paragraphs

Paragraphs are defined with the tag.

Example

```
This is a paragraph
This is another paragraph
```

Note: Browsers automatically add an empty line before and after a paragraph.

Don't Forget the End Tag

Most browsers will display HTML correctly even if you forget the end tag:

Example

This is a paragraph
This is another paragraph

The example above will work in most browsers, but don't rely on it. Forgetting the end tag can produce unexpected results or errors.

Note: Future version of HTML will not allow you to skip end tags.

HTML Line Breaks

Use the
br /> tag if you want a line break (a new line) without starting a new paragraph;

Example

This is
p para
graph with line breaks

The
br /> element is an empty HTML element. It has no end tag.

 or

In XHTML, XML, elements with no end tag (closing tag) are not allowed.

Even if

sry works in all browsers, writing

instead works better in XHTML and XML applications.

HTML Output - Useful Tips

You cannot be sure how HTML will be displayed. Large or small screens, and resized windows will create different results.

With HTML, you cannot change the output by adding extra spaces or extra lines in your HTML code.

The browser will remove extra spaces and extra lines when the page is displayed. Any number of lines count as one line, and any number of spaces count as one space.

HTML Tag Reference

Tag Description

≤p≥ Defines a paragraph

br /> Inserts a single line break

HTML Text Formatting

This text is bold

This text is big

This text is italic

HTML Formatting Tags

HTML uses tags like and <i> for formatting output, like **bold** or *italic* text.

These HTML tags are called formatting tags (look at the bottom of this page for a complete reference).

Often renders as , and renders as <i>.

However, there is a difference in the meaning of these tags:

 or <i> defines bold or italic text only.

 or means that you want the text to be rendered in a way that the user understands as "important". Today, all major browsers render strong as bold and em as italies. However, if a browser one day wants to make a text highlighted with the strong feature, it might be cursive for example and not bold!

HTML Text Formatting Tags

Tag	Description
<u></u>	Defines bold text
≤big≥	Defines big text
	Defines emphasized text
<i>≥</i>	Defines italic text
<small></small>	Defines small text
	Defines strong text
	Defines subscripted text
	Defines superscripted text
<ins></ins>	Defines inserted text
	Defines deleted text

HTML "Computer Output" Tags

Tag Description

<code> Defines computer code text

<kbd> Defines keyboard text

<samp> Defines sample computer code

Description

<u><tt></u> Defines teletype text
<var> Defines a variable

pre> Defines preformatted text

HTML Citations, Quotations, and Definition Tags

	Description .
<u>≤abbr≥</u>	Defines an abbreviation
<acronym></acronym>	Defines an acronym
<address></address>	Defines contact information for the author/owner of a document
<bd>></bd>	Defines the text direction
<blookquote></blookquote>	Defines a long quotation
≤q≥	Defines a short quotation

<cite> Defines a citation

<dfn> Defines a definition term

HTML Fonts

The example below shows how the HTML could look by using the tag:

Example

Tag

```
<font size="5" face="arial" color="red">
This paragraph is in Arial, size 5, and in red text color.
</font>

<font size="3" face="verdana" color="blue">
This paragraph is in Verdana, size 3, and in blue text color.
</font>
```

HTML Styles - CSS

CSS is used to style HTML elements.

Look! Styles and colors

This text is in Verdana and red

This text is in Times and blue

This text is 30 pixels high

Styling HTML with CSS

CSS was introduced together with HTML 4, to provide a better way to style HTML elements.

CSS can be added to HTML in the following ways:

- in separate style sheet files (CSS files)
- in the style element in the HTML head section
- in the style attribute in single HTML elements

Using the HTML Style Attribute

It is time consuming and not very practical to style HTML elements using the style attribute.

The preferred way to add CSS to HTML, is to put CSS syntax in separate CSS files.

However, in this HTML tutorial we will introduce you to CSS using the style attribute. This is done to simplify the examples. It also makes it easier for you to edit the code and try it yourself.

HTML Style Example - Background Color

The background-color property defines the background color for an element:

Example

```
<html>
<body style="background-color:yellow;">
<h2 style="background-color:red;">This is a heading</h2>
This is a paragraph.
</body>
</html>
```

The background-color property makes the "old" bgcolor attribute obsolete.

HTML Style Example - Font, Color and Size

The font-family, color, and font-size properties define the font, color, and size of the text in an element:

Example

```
<html>
<body>
<h1 style="font-family:verdana;">A heading</h1>
A paragraph.
</body>
</html>
```

The font-family, color, and font-size properties make the old tag obsolete.

HTML Style Example - Text Alignment

The text-align property specifies the horizontal alignment of text in an element:

Example

```
<html>
<body>
<h1 style="text-align:center;">Center-aligned heading</h1>
This is a paragraph.
</body>
</html>
```

The text-align property makes the old <center> tag obsolete.

Deprecated Tags and Attributes

In HTML 4, several tags and attributes were deprecated. Deprecated means that they will not be supported in future versions of HTML.

The message is clear: Avoid using deprecated tags and attributes!

These tags and attributes should be avoided:

Tags	Description		
<center></center>	Deprecated. Defines centered content		
 and <basefont/>	Deprecated. Defines HTML fonts		
<s> and <strike></strike></s>	Deprecated. Defines strikethrough text		
<u>></u>	Deprecated. Defines underlined text		
Attributes	Description		
align	Deprecated. Defines the alignment of text		
bgcolor	Deprecated. Defines the background color		
color	Deprecated. Defines the text color		

For all of the above: Use styles instead!

HTML Links

Links are found in nearly all Web pages. Links allow users to click their way from page to page.

HTML Hyperlinks (Links)

A hyperlink (or link) is a word, group of words, or image that you can click on to jump to a new document or a new section within the current document.

When you move the cursor over a link in a Web page, the arrow will turn into a little hand.

Links are specified in HTML using the <a> tag.

The <a> tag can be used in two ways:

- 1. To create a link to another document, by using the href attribute
- 2. To create a bookmark inside a document, by using the name attribute

HTML Link Syntax

The HTML code for a link is simple. It looks like this:

```
<a href="url">Link text</a>
```

The href attribute specifies the destination of a link.

Example

Visit Xitec Solutions which will display like this: Visit Xitec Solutions

Clicking on this hyperlink will send the user to Xitec Solutions homepage.

Tip: The "Link text" doesn't have to be text. It can be an image or any other HTML element.

HTML Links - The target Attribute

The target attribute specifies where to open the linked document.

The example below will open the linked document in a new browser window or a new tab:

Example

Visit Xitec Solutions!

HTML Links - The name Attribute

The name attribute specifies the name of an anchor.

The name attribute is used to create a bookmark inside an HTML document.

Note: The upcoming HTML5 standard suggest using the id attribute instead of the name attribute for specifying the name of an anchor. Using the id attribute actually works also for HTML4 in all modern browsers.

Bookmarks are not displayed in any special way. They are invisible to the reader.

Example

A named anchor inside an HTML document:

Useful Tips Section

Create a link to the "Useful Tips Section" inside the same document:

Visit the Useful Tips Section

Or, create a link to the "Useful Tips Section" from another page:

 Visit the Useful Tips Section

HTML Link Tags

Tag Description

<a> Defines an anchor

HTML Images

Example



HTML Images - The Tag and the Src Attribute

In HTML, images are defined with the tag.

The tag is empty, which means that it contains attributes only, and 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.

Syntax for defining an image:

HTML Images - The Alt Attribute

The required alt attribute specifies an alternate text for an image, if the image cannot be displayed.

The value of the alt attribute is an author-defined text:

The alt attribute provides alternative information for an image if a user for some reason cannot view it (because of slow connection, an error in the src attribute, or if the user uses a screen reader).

HTML Images - Set Height and Width of an Image

The height and width attributes are used to specify the height and width of an image.

The attribute values are specified in pixels by default:

```
<img src="pulpit.jpg" alt="Pulpit rock" width="304" height="228" />
```

Tip: It is a good practice to specify both the height and width attributes for an image. If these attributes are set, the space required for the image is reserved when the page is loaded. However, without these attributes, the browser does not know the size of the image. The effect will be that the page layout will change during loading (while the images load).

HTML Image Tags

Tag Description

 Defines an image

<map> Defines an image-map

<u><area /></u> Defines a clickable area inside an image-map

HTML Tables

Apples	44%
Bananas	23%
Oranges	13%
Other	10%

Tables are defined with the tag.

A table is divided into rows (with the
 tag), and each row is divided into data cells (with the tag). td stands for "table data," and holds the content of a data cell. A tag can contain text, links, images, lists, forms, other tables, etc.

Table Example

```
r>
row 1, cell 1

row 1, cell 2

row 2, cell 1

row 2, cell 2

row 2, cell 2
```

How the HTML code above looks in a browser:

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

HTML Tables and the Border Attribute

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

To display a table with borders, specify the border attribute:

```
Row 1, cell 1
Row 1, cell 2

/tr>
```

HTML Table Headers

Header information in a table are defined with the tag.

All major browsers will display the text in the element as bold and centered.

```
Header 1
Header 2

Header 2

row 1, cell 1

row 1, cell 2

row 2, cell 1

row 2, cell 2

td>row 2, cell 2
```

How the HTML code above looks in your browser:

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

Notes:

Tables without borders

How to create tables without borders.

Table headers

How to create table headers.

Table with a caption

How to add a caption to a table.

Table cells that span more than one row/column

How to define table cells that span more than one row or one column.

Tags inside a table

How to display elements inside other elements.

Cell padding

How to use cellpadding to create more white space between the cell content and its borders.

Cell spacing

How to use cellspacing to increase the distance between the cells.

The frame attribute

How to use the "frame" attribute to control the borders around the table.

HTML Table Tags

Tag	Description
	Defines a table
<	Defines a table header
<u></u>	Defines a table row
>	Defines a table cell
<caption></caption>	Defines a table caption
<colgroup></colgroup>	Defines a group of columns in a table, for formatting
<col/>	Defines attribute values for one or more columns in a table
<thead></thead>	Groups the header content in a table
	Groups the body content in a table
<u><tfoot></tfoot></u>	Groups the footer content in a table

HTML Lists

The most common HTML lists are ordered and unordered lists:

An ordered list:

An unordered list:

- 1. The first list item
- 2. The second list item
- 3. The third list item

- List item
- · List item
- · List item

Unordered list

How to create an unordered list in an HTML document.

Ordered list

How to create an ordered list in an HTML document.

HTML Unordered Lists

An unordered list starts with the tag. Each list item starts with the tag.

The list items are marked with bullets (typically small black circles).

Coffee
 Milk

How the HTML code above looks in a browser:

- Coffee
- Milk

HTML Ordered Lists

An ordered list starts with the tag. Each list item starts with the tag.

The list items are marked with numbers.

Coffee
 Milk

How the HTML code above looks in a browser:

1. Coffee

2. Milk

HTML Definition Lists

A definition list is a list of items, with a description of each item.

The <dl> tag defines a definition list.

The <dl> tag is used in conjunction with <dt> (defines the item in the list) and <dd> (describes the item in the list):

```
<dl>
<dt>Coffee</dt>
<dd>- black hot drink</dd>
<dt>Milk</dt>
<dd>- white cold drink</dd>
</dl>
```

How the HTML code above looks in a browser:

Coffee

- black hot drink

Milk

- white cold drink

Notes:

Different types of ordered lists

Demonstrates different types of ordered lists.

Different types of unordered lists

Demonstrates different types of unordered lists.

Nested list

Demonstrates how you can nest lists.

Nested list 2

Demonstrates a more complicated nested list.

Definition list

Demonstrates a definition list.

HTML List Tags

Tag Description

- Sol Defines an ordered list
- Ul> Defines an unordered list
- Defines a list item
- <dl> Defines a definition list
- <dt> Defines an item in a definition list
- <dd> Defines a description of an item in a definition list

HTML Forms and Input

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

HTML forms are used to pass data to a server.

A form can contain input elements like text fields, checkboxes, radio-buttons, submit buttons and more. A form can also contain select lists, textarea, fieldset, legend, and label elements.

The <form> tag is used to create an HTML form:

<form>

input elements

</form>

HTML Forms - The Input Element

The most important form element is the input element.

The input element is used to select user information,

An input element can vary in many ways, depending on the type attribute. An input element can be of type text field, checkbox, password, radio button, submit button, and more.

The most used input types are described below.

Text Fields

<input type="text"/> defines a one-line input field that a user can enter text into:
<form></form>
First name: <input name="firstname" type="text"/>
Last name: <input name="lastname" type="text"/>
How the HTML code above looks in a browser:
First name:
Last name:
Note: The form itself is not visible. Also note that the default width of a text field is 20 characters.
Password Field
<input type="password"/> defines a password field:
<form></form>
Password: <input name="pwd" type="password"/>
How the HTML code above looks in a browser:
Password:
Note: The characters in a password field are masked (shown as asterisks or circles).
Radio Buttons
<input type="radio"/> defines a radio button. Radio buttons let a user select ONLY ONE of a limited number of choices:
<form></form>
<input name="sex" type="radio" value="male"/> Male br />
<input name="sex" type="radio" value="female"/> Female
How the HTML code above looks in a browser:
C Male
C Female

Checkboxes

<input type="checkbox" /> defines a checkbox. Checkboxes let a user select ONE or MORE options of a limited number of choices.

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

How the HTML code above looks in a browser:

	1	have	a	bike
_		2000	77	30000

I have a car

Submit Button

<input type="submit" /> defines a submit button.

A submit button is used to send form data to a server. The data is sent to the page specified in the form's action attribute. 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 the HTML code above looks in a browser:



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

HTML Form Tags

Tag	Description
<form></form>	Defines an HTML form for user input
<input/>	Defines an input control
<textarea></td><td>Defines a multi-line text input control</td></tr></tbody></table></textarea>	

<u><label></u> Defines a label for an input element

≤fieldset> Defines a border around elements in a form
≤legend> Defines a caption for a fieldset element

<u><select></u> Defines a select list (drop-down list)

<optgroup> Defines a group of related options in a select list

<option> Defines an option in a select list

<u>button</u> Defines a push button

HTML 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:

- · Frames are not expected to be supported in future versions of HTML
- Frames are difficult to use. (Printing the entire page is difficult).
- The web developer must keep track of more HTML documents

The HTML frameset Element

The frameset element holds one or more frame elements. Each frame element can hold a separate document.

The frameset element states HOW MANY columns or rows there will be in the frameset, and HOW MUCH percentage/pixels of space will occupy each of them.

The HTML frame Element

The <frame> tag defines one particular window (frame) within a frameset.

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 document "frame_a.htm" is put into the first column, and the 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 can also be set in pixels (cols="200,500"), and one of the columns can be set to use the remaining space, with an asterisk (cols="25%,*").

Basic Notes - Useful Tips

Tip: 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.

Note: 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.

HTML Frame Tags

Tag Description ≤frameset> Defines a set of frames

<u>frame /></u> Defines a sub window (a frame)

<noframes> Defines a noframe section for browsers that do not handle frames

HTML Iframes

An iframe is used to display a web page within a web page.

Syntax for adding an iframe:

```
<iframe src="URL"></iframe>
```

The URL points to the location of the separate page.

Iframe - Set Height and Width

The height and width attributes are used to specify the height and width of the iframe.

The attribute values are specified in pixels by default, but they can also be in percent (like "80%").

Example

<iframe sre="demo_iframe.htm" width="200" height="200"></iframe>

Iframe - Remove the Border

The frameborder attribute specifies whether or not to display a border around the iframe.

Set the attribute value to "0" to remove the border:

Example

<iframe src="demo_iframe.htm" frameborder="0"></iframe>

Use iframe as a Target for a Link

An iframe can be used as the target frame for a link.

The target attribute of a link must refer to the name attribute of the iframe:

Example

```
<iframe src="demo_iframe.htm" name="iframe_a"></iframe>
<a href="http://www.xitecsolutions.com" target="iframe_a">
xitecsolutions.com</a>
```

HTML iframe Tag

Tag Description

<iframe> Defines an inline sub window (frame)

HTML Colors

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

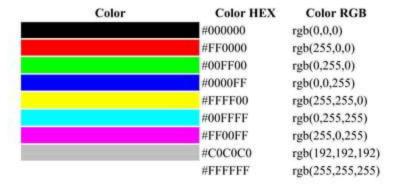
Color Values

HTML colors are defined using a hexadecimal notation (HEX) 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 (in HEX: 00). The highest value is 255 (in HEX: FF).

HEX values are specified as 3 pairs of two-digit numbers, starting with a # sign.

Color Values



16 Million Different Colors

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

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 the full list of color mixes when RED varies from 0 to 255, click on one of the HEX or RGB values below.

Red Light	Color HEX	Color 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 created by using an equal amount of power to all of the light sources.

To make it easier for you to select the correct shade, we have created a table of gray shades for you:

Gray Shades	Color HEX	Color RGB
	#000000	rgb(0,0,0)
	#080808	rgb(8,8,8)
	#101010	rgb(16,16,16)
	#181818	rgb(24,24,24)
	#202020	rgb(32,32,32)
	#282828	rgb(40,40,40)
	#303030	rgb(48,48,48)
	#383838	rgb(56,56,56)
	#404040	rgb(64,64,64)
	#484848	rgb(72,72,72)
	#505050	rgb(80,80,80)
	#585858	rgb(88,88,88)
	#606060	rgb(96,96,96)
	#686868	rgb(104,104,104)
	#707070	rgb(112,112,112)
	#787878	rgb(120,120,120)
	#808080	rgb(128,128,128)
	#888888	rgb(136,136,136)
	#909090	rgb(144,144,144)
	#989898	rgb(152,152,152)
	#A0A0A0	rgb(160,160,160)
	#A8A8A8	rgb(168,168,168)
	#B0B0B0	rgb(176,176,176)
	#B8B8B8	rgb(184,184,184)
	#C0C0C0	rgb(192,192,192)
	#C8C8C8	rgb(200,200,200)
	#D0D0D0	rgb(208,208,208)
	#D8D8D8	rgb(216,216,216)
	#E0E0E0	rgb(224,224,224)
	#E8E8E8	rgb(232,232,232)
	#F0F0F0	rgb(240,240,240)

#F8F8F8 rgb(248,248,248) #FFFFFF rgb(255,255,255)

Web Safe Colors?

Some years ago, when computers supported max 256 different colors, a list of 216 "Web Safe Colors" was suggested as a Web standard, reserving 40 fixed system colors.

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

This is not important today, since most computers can display millions of different colors. Anyway, here is the list:

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	FF66EF
FF9900	FF9933	FF9966	FF9999	FF99CC	FF99FF
FFCC00	FFCC33	FFCC66	FFCC99	FFCCCC	FFCCFF
FFFF00	FFFF33	FFFF66	FFFF99	FFFFCC	FFFFFF

HTML Color Names

Color Names Supported by All Browsers

147 color names are defined in the HTML and CSS color specification (17 standard colors plus 130 more). The table below lists them all, along with their hexadecimal values.

Tip: The 17 standard colors are: aqua, black, blue, fuchsia, gray, grey, green, lime, maroon, navy, olive, purple, red, silver, teal, white, and yellow.

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

Sorted by Color Name

Same list sorted by hex values

Color Name	HEX	Color	Shades	Mix
AliceBlue	#F0F8FF		Shades	Mix
AntiqueWhite	#FAEBD7		Shades	Mix
Aqua	#00FFFF		Shades	Mix

Aquamarine	#7FFFD4	Shades Mix
Azure	#F0FFFF	Shades Mix
Beige	#F5F5DC	Shades Mix
Bisque	#FFE4C4	Shades Mix
Black	#000000	Shades Mix
BlanchedAlmond	#FFEBCD	Shades Mix
Blue	#0000FF	Shades Mix
BlueViolet	#8A2BE2	Shades Mix
Brown	#A52A2A	Shades Mix
BurlyWood	#DEB887	Shades Mix
CadetBlue	#5F9EA0	Shades Mix
Chartreuse	#7FFF00	Shades Mix
Chocolate	#D2691E	Shades Mix
Coral	#FF7F50	Shades Mix
CornflowerBlue	#6495ED	Shades Mix
Cornsilk	#FFF8DC	Shades Mix
Crimson	#DC143C	Shades Mix
Cyan	#00FFFF	Shades Mix
DarkBlue	#00008B	Shades Mix
DarkCyan	#008B8B	Shades Mix
DarkGoldenRod	#B8860B	Shades Mix
DarkGray	#A9A9A9	Shades Mix
DarkGrey	#A9A9A9	Shades Mix
DarkGreen	#006400	Shades Mix
<u>DarkKhaki</u>	#BDB76B	Shades Mix
DarkMagenta	#8B008B	Shades Mix
DarkOliveGreen	#556B2F	Shades Mix
Darkorange	#FF8C00	Shades Mix
DarkOrchid	#9932CC	Shades Mix
DarkRed	#8B0000	Shades Miz
DarkSalmon	#E9967A	Shades Mix
DarkSeaGreen	#8FBC8F	Shades Mix
DarkSlateBlue	#483D8B	Shades Mix
DarkSlateGray	#2F4F4F	Shades Mix
DarkSlateGrey	#2F4F4F	Shades Mix
DarkTurquoise	#00CED1	Shades Mix
DarkViolet	#9400D3	Shades Mix
DeepPink	#FF1493	Shades Mix

DeepSkyBlue	#00BFFF	Shades	Mix
DimGray	#696969	Shades	Mix
DimGrey	#696969	Shades	Mix
DodgerBlue	#1E90FF	Shades	Mix
FireBrick	#B22222	Shades	Mix
FloralWhite	#FFFAF0	Shades	Mix
ForestGreen	#228B22	Shades	Mix
Fuchsia	#FF00FF	Shades	Mix
Gainsboro	#DCDCDC	Shades	Mix
GhostWhite	#F8F8FF	Shades	Mix
Gold	#FFD700	Shades	Mix
GoldenRod	#DAA520	Shades	Mix
Gray	#808080	Shades	Mix
Grey	#808080	Shades	Mix
Green	#008000	Shades	Mix
GreenYellow	#ADFF2F	Shades	Mix
HoneyDew	#F0FFF0	Shades	Mix
HotPink	#FF69B4	Shades	Mix
IndianRed	#CD5C5C	Shades	Mix
Indigo	#4B0082	Shades	Mix
Ivory	#FFFFF0	Shades	Mix
Khaki	#F0E68C	Shades	Mix
Lavender	#E6E6FA	Shades	Mix
LavenderBlush	#FFF0F5	Shades	Mix
LawnGreen	#7CFC00	Shades	Mix
LemonChiffon	#FFFACD	Shades	Mix
LightBlue	#ADD8E6	Shades	Mix
LightCoral	#F08080	Shades	Mix
LightCyan	#E0FFFF	Shades	Mix
LightGoldenRodYellow	#FAFAD2	Shades	Mix
LightGray	#D3D3D3	Shades	Mix
LightGrey	#D3D3D3	Shades	Mix
LightGreen	#90EE90	Shades	Mix
LightPink	#FFB6C1	Shades	Mix
LightSalmon	#FFA07A	Shades	Mix
<u>LightSeaGreen</u>	#20B2AA	Shades	Mix
LightSkyBlue	#87CEFA	Shades	Mix
LightSlateGray	#778899	Shades	Mix

LightSlateGrey	<u>#778899</u>	Shades M	Aix
LightSteelBlue	#B0C4DE	Shades M	Aix
LightYellow	#FFFFE0	Shades M	lix
Lime	#00FF00	Shades M	lix
LimeGreen	#32CD32	Shades M	Aix
Linen	#FAF0E6	Shades M	4ix
Magenta	#FF00FF	Shades M	Aix
Maroon	#800000	Shades M	lix
MediumAquaMarine	#66CDAA	Shades M	lix
MediumBlue	#0000CD	Shades M	4ix
MediumOrchid	#BA55D3	Shades M	4ix
MediumPurple	#9370D8	Shades M	1ix
MediumSeaGreen	#3CB371	Shades M	lix
MediumSlateBlue	#7B68EE	Shades M	lix
MediumSpringGreen	#00FA9A	Shades M	Aix
MediumTurquoise	#48D1CC	Shades M	1ix
MediumVioletRed	#C71585	Shades M	lix
MidnightBlue	#191970	Shades M	lix
MintCream	#FSFFFA	Shades M	lix
MistyRose	#FFE4E1	Shades M	Aix
Moccasin	#FFE4B5	Shades M	Aix
NavajoWhite	#FFDEAD	Shades M	Aix
Navy	#000080	Shades M	lix
OldLace	#FDF5E6	Shades M	lix
Olive	#808000	Shades M	1ix
OliveDrab	#6B8E23	Shades M	Aix
Orange	#FFA500	Shades M	1ix
OrangeRed	#FF4500	Shades M	lix
Orchid	#DA70D6	Shades M	lix
PaleGoldenRod	#EEE8AA	Shades M	Aix
PaleGreen	#98FB98	Shades M	Aix
PaleTurquoise	#AFEEEE	Shades M	1ix
PaleVioletRed	#D87093	Shades M	lix
PapayaWhip	#FFEFD5	Shades M	
PeachPuff	#FFDAB9	Shades M	
Peru	#CD853F		4iz
Pink	#FFC0CB	70. 77 20	/lix
Plum	#DDA0DD	Shades M	

PowderBlue	#B0E0E6	Shades Mix
Purple	#800080	Shades Mix
Red	#FF0000	Shades Mix
RosyBrown	#BC8F8F	Shades Mix
RoyalBlue	#4169E1	Shades Mix
SaddleBrown	#8B4513	Shades Mix
Salmon	#FA8072	Shades Mix
SandyBrown	#F4A460	Shades Mix
SeaGreen	#2E8B57	Shades Mix
SeaShell	#FFF5EE	Shades Mix
Sienna	#A0522D	Shades Mix
Silver	#C0C0C0	Shades Mix
SkyBlue	#87CEEB	Shades Mix
SlateBlue	#6A5ACD	Shades Mix
SlateGray	#708090	Shades Mix
SlateGrey	#708090	Shades Mix
Snow	#FFFAFA	Shades Mix
SpringGreen	#00FF7F	Shades Mix
SteelBlue	#4682B4	Shades Mix
Tan	#D2B48C	Shades Mix
Teal	#008080	Shades Mix
Thistle	#D8BFD8	Shades Mix
Tomato	#FF6347	Shades Mix
Turquoise	#40E0D0	Shades Mix
Violet	#EE82EE	Shades Mix
Wheat	#F5DEB3	Shades Mix
White	#FFFFF	Shades Mix
WhiteSmoke	#F5F5F5	Shades Mix
Yellow	#FFFF00	Shades Mix
YellowGreen	#9ACD32	Shades Mix

HTML Color Values

Sorted by Hex Value

Same list sorted by color name

Color Name	HEX	Color	Shades	Mix
Black	#000000		Shades	Mix
Navy	#000080		Shades	Mix
<u>DarkBlue</u>	#00008B		Shades	Mix
MediumBlue	#0000CD		Shades	Mix
Blue	#0000FF		Shades	Mix
DarkGreen	#006400		Shades	Mix
Green	#008000		Shades	Mix
Teal	#008080		Shades	Mix
DarkCyan	#008B8B		Shades	Mix
DeepSkyBlue	#00BFFF		Shades	Mix
DarkTurquoise	#00CED1		Shades	Mix
MediumSpringGreen	#00FA9A		Shades	Mix
Lime	#00FF00		Shades	Mix
SpringGreen	#00FF7F		Shades	Mix
Aqua	#00FFFF		Shades	Mix
Cyan	#00FFFF		Shades	Mix
MidnightBlue	#191970		Shades	Mix
DodgerBlue	#1E90FF		Shades	Mix
LightSeaGreen	#20B2AA		Shades	Mix
ForestGreen	#228B22		Shades	Mix
SeaGreen	#2E8B57		Shades	Mix
DarkSlateGray	#2F4F4F		Shades	Mix
DarkSlateGrey	#2F4F4F		Shades	Mix
LimeGreen	#32CD32		Shades	Mix
MediumSeaGreen	#3CB371		Shades	Mix
Turquoise	#40E0D0		Shades	Mix
RoyalBlue	#4169E1		Shades	Mix
SteelBlue	#4682B4		Shades	Mix
DarkSlateBlue	#483D8B		Shades	Mix
MediumTurquoise	#48D1CC		Shades	Mix
Indigo	#4B0082		Shades	Mix

DarkOliveGreen	#556B2F	Shades M
CadetBlue	#5F9EA0	Shades M
CornflowerBlue	#6495ED	Shades M
MediumAquaMarine	#66CDAA	Shades M
DimGray	#696969	Shades M
DimGrey	#696969	Shades M
SlateBlue	#6A5ACD	Shades M
OliveDrab	#6B8E23	Shades M
SlateGray	#708090	Shades M
SlateGrey	#708090	Shades M
LightSlateGray	#778899	Shades M
LightSlateGrey	#778899	Shades M
MediumSlateBlue	#7B68EE	Shades M
LawnGreen	#7CFC00	Shades M
Chartreuse	#7FFF00	Shades M
Aquamarine	#7FFFD4	Shades M
Maroon	#800000	Shades M
Purple Purple	#800080	Shades M
Olive	#808000	Shades M
Gray	#808080	Shades M
Grey	#808080	Shades M
SkyBlue	#87CEEB	Shades M
LightSkyBlue	#87CEFA	Shades M
BlueViolet	#8A2BE2	Shades M
DarkRed	#8B0000	Shades M
DarkMagenta	#8B008B	Shades M
SaddleBrown	#8B4513	Shades M
DarkSeaGreen	#8FBC8F	Shades M
LightGreen	#90EE90	Shades M
MediumPurple	#9370D8	Shades M
<u>DarkViolet</u>	#9400D3	Shades M
PaleGreen	#98FB98	Shades M
<u>DarkOrchid</u>	#9932CC	Shades M
YellowGreen	#9ACD32	Shades M
Sienna	#A0522D	Shades M
Brown	#A52A2A	Shades M
<u>DarkGray</u>	#A9A9A9	Shades M
DarkGrey	#A9A9A9	Shades M

LightBlue	#ADD8E6	Shades Mix
GreenYellow	#ADFF2F	Shades Mix
PaleTurquoise	#AFEEEE	Shades Mix
LightSteelBlue	#B0C4DE	Shades Mix
PowderBlue	#B0E0E6	Shades Mix
FireBrick	#B22222	Shades Mix
DarkGoldenRod	#B8860B	Shades Mix
MediumOrchid	#BA55D3	Shades Mix
RosyBrown	#BC8F8F	Shades Mix
DarkKhaki	#BDB76B	Shades Mix
Silver	#C0C0C0	Shades Mix
MediumVioletRed	#C71585	Shades Mix
IndianRed	#CD5C5C	Shades Mix
Peru	#CD853F	Shades Mix
Chocolate	#D2691E	Shades Mix
Tan	#D2B48C	Shades Mix
LightGray	#D3D3D3	Shades Mix
LightGrey	#D3D3D3	Shades Mix
PaleVioletRed	#D87093	Shades Mix
Thistle	#D8BFD8	Shades Mix
Orchid	#DA70D6	Shades Mix
GoldenRod	#DAA520	Shades Mix
Crimson	#DC143C	Shades Mix
Gainsboro	#DCDCDC	Shades Mix
Plum	#DDA0DD	Shades Mix
BurlyWood	#DEB887	Shades Mix
LightCyan	#E0FFFF	Shades Mix
<u>Lavender</u>	#E6E6FA	Shades Mix
DarkSalmon	#E9967A	Shades Mix
Violet	#EE82EE	Shades Mix
PaleGoldenRod	#EEE8AA	Shades Mix
LightCoral	#F08080	Shades Mix
Khaki	#F0E68C	Shades Mix
AliceBlue	#F0F8FF	Shades Mix
HoneyDew	#F0FFF0	Shades Mix
Azure	#F0FFFF	Shades Mix
SandyBrown	#F4A460	Shades Mix
Wheat	#F5DEB3	Shades Mix

Beige	#F5F5DC	Shades Mix
WhiteSmoke	#F5F5F5	Shades Mix
MintCream	#F5FFFA	Shades Mix
GhostWhite	#F8F8FF	Shades Mix
Salmon	#FA8072	Shades Mix
AntiqueWhite	#FAEBD7	Shades Mix
Linen	#FAF0E6	Shades Mix
LightGoldenRodYellow	#FAFAD2	Shades Mix
OldLace	#FDF5E6	Shades Mix
Red	#FF0000	Shades Mix
Fuchsia	#FF00FF	Shades Mix
Magenta	#FF00FF	Shades Mix
DeepPink	#FF1493	Shades Mix
OrangeRed	#FF4500	Shades Mix
Tomato	#FF6347	Shades Mix
HotPink	#FF69B4	Shades Mix
Coral	#FF7F50	Shades Mix
Darkorange	#FF8C00	Shades Mix
LightSalmon	#FFA07A	Shades Mix
Orange	#FFA500	Shades Mix
LightPink	#FFB6C1	Shades Mix
Pink Pink	#FFC0CB	Shades Mix
Gold	#FFD700	Shades Mix
PeachPuff	#FFDAB9	Shades Mix
NavajoWhite	#FFDEAD	Shades Mix
Moccasin	#FFE4B5	Shades Mix
Bisque	#FFE4C4	Shades Mix
MistyRose	#FFE4E1	Shades Mix
BlanchedAlmond	#FFEBCD	Shades Mix
PapayaWhip	#FFEFD5	Shades Mix
LavenderBlush	#FFF0F5	Shades Mix
SeaShell	#FFF5EE	Shades Mix
Cornsilk	#FFF8DC	Shades Mix
LemonChiffon	#FFFACD	Shades Mix
FloralWhite	#FFFAF0	Shades Mix
Snow	#FFFAFA	Shades Mix
Yellow	#FFFF00	Shades Mix
LightYellow	#FFFFE0	Shades Mix

Ivory	#FFFFF0	Shades Mix
White	#FFFFFF	Shades Mix

HTML 4.01 Quick List

HTML Basic Document

<html>

<head>

<title>Title of document 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)

This text is preformatted

Logical Styles

This text is emphasized

This text is strong

<code>This is some computer code</code>

Physical Styles

```
<br/>
<br/>
<br/>
i>This text is bold</b>
<br/>
<i>This text is italic</i>
```

Links

```
Ordinary link: <a href="http://www.example.com/">Link-text goes here</a> Image-link: <a href="http://www.example.com/"><img sre="URL" alt="Alternate Text" /></a>
```

Mailto link: Send e-mail

A named anchor:

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

Unordered list

```
    li>ltem
    li>ltem

    <l>

    <l>

    <l>

    <l>

    <l>

    <l>

    <l>

    <l>

    <l>

    <l>
```

Ordered list

```
    First item
    Second item
```

Definition list

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

Tables

```
    Tableheader

    Tableheader
```

```
sometext
  sometext
Iframe
<iframe src="demo_iframe.htm"></iframe>
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="email" size="40" maxlength="50" />
<input type="password" />
<input type="checkbox" checked="checked" />
<input type="radio" checked="checked" />
<input type="submit" value="Send" />
<input type="reset" />
<input type="hidden" />
<select>
<option>Apples</option>
<option selected="selected">Bananas</option>
<option>Cherries</option>
</select>
<textarea name="comment" rows="60" cols="20"></textarea>
</form>
Entities
< is the same as <
> is the same as >
© is the same as ©
```