



Hyper Text Markup Language

HTML

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>
<p>My first paragraph.</p>
</body>
</html>
```



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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 `<p>` and `</p>` 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>`

`<h2>This is a heading</h2>`

`<h3>This is a heading</h3>`

HTML Paragraphs

HTML paragraphs are defined with the `<p>` tag.

Example

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

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



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HTML Links

HTML links are defined with the <a> tag.

Example

```
<a href="http://www.xitecsolutions.com">This is a link</a>
```

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.



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HTML Elements

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

Start tag *	Element content	End tag *
<p>	This is a paragraph	</p>
	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>
<p>This is my first paragraph.</p>
</body>
</html>
```



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The example above contains 3 HTML elements.

HTML Example Explained

The `<p>` element:

```
<p>This is my first paragraph.</p>
```

The `<p>` element defines a paragraph in the HTML document.

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

The element content is: This is my first paragraph.

The `<body>` element:

```
<body>
<p>This is my first paragraph.</p>
</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>
<p>This is my first paragraph.</p>
</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: `<p>`This is a paragraph

`<p>`This is a paragraph



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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 `<p>`. 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

```
<a href="http://TechByWebCoder.netlify.app/">This is a link</a>
```



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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 case-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	<i>classname</i>	Specifies a classname for an element
id	<i>id</i>	Specifies a unique id for an element
style	<i>style_definition</i>	Specifies an inline style for an element
title	<i>tooltip_text</i>	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>
```



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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

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

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.



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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
<u><html></u>	Defines an HTML
<u><body></u>	document Defines the
	document's body
<u><hr /></u>	Defines a horizontal line
<u><!--></u>	Defines a comment

HTML Paragraphs

Paragraphs are defined with the <p> tag.

Example

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

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

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



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Don't Forget the End Tag

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

Example

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

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

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

`<br>` or `<br />`

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

Even if `<br>` works in all browsers, writing `<br />` 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.



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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
-----	-------------

<code><p></code>	Defines a paragraph
------------------------	---------------------

<code>
</code>	Inserts a single line break
---------------------------	-----------------------------



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HTML Text Formatting

This text is bold

This text is big

This text is italic

HTML Formatting Tags

HTML uses tags like `<b>` 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 `<strong>` renders as `<b>`, and `<em>` renders as `<i>`.

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

`<b>` or `<i>` defines bold or italic text only.

`<strong>` or `<em>` 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 italics. 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
<code></code>	Defines bold text
<code><big></code>	Defines big text
<code></code>	Defines emphasized text
<code><i></code>	Defines italic text
<code><small></code>	Defines small text
<code></code>	Defines strong text
<code><sub></code>	Defines subscripted text
<code><sup></code>	Defines superscripted text
<code><ins></code>	Defines inserted text
<code></code>	Defines deleted text



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HTML "Computer Output" Tags

Tag	Description
-----	-------------

<code><code></code>	Defines computer code text
---------------------------	----------------------------

<code><kbd></code>	Defines keyboard text
--------------------------	-----------------------

<code><samp></code>	Defines sample computer code
---------------------------	------------------------------

<code><tt></code>	Defines teletype text
-------------------------	-----------------------

<code><var></code>	Defines a variable
--------------------------	--------------------

<code><pre></code>	Defines preformatted text
--------------------------	---------------------------

HTML Citations, Quotations, and Definition Tags

Tag	Description
-----	-------------

<code><abbr></code>	Defines an abbreviation
---------------------------	-------------------------

<code><acronym></code>	Defines an acronym
------------------------------	--------------------

<code><address></code>	Defines contact information for the author/owner of a document
------------------------------	--

<code><bdo></code>	Defines the text direction
--------------------------	----------------------------

<code><blockquote></code>	Defines a long quotation
---------------------------------	--------------------------

<code><q></code>	Defines a short quotation
------------------------	---------------------------

<code><cite></code>	Defines a citation
---------------------------	--------------------

<code><dfn></code>	Defines a definition term
--------------------------	---------------------------

HTML Fonts

The example below shows how the HTML could look by using the `<font>` tag:

Example

```
<p>
```

```
<font size="5" face="arial" color="red">
```

```
This paragraph is in Arial, size 5, and in red text color.
```

```
</font>
```

```
</p>
```

```
<p>
```

```
<font size="3" face="verdana" color="blue">
```

```
This paragraph is in Verdana, size 3, and in blue text color.
```

```
</font>
```

```
</p>
```



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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.



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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>
<p style="background-color:green;">This is a paragraph.</p>
</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>
<p style="font-family:arial;color:red;font-size:20px;">A paragraph.</p>
</body>
</html>
```

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



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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>
<p>This is a paragraph.</p>
</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>	Deprecated. Defines centered content
 and <basefont>	Deprecated. Defines HTML fonts
<s> and <strike>	Deprecated. Defines strikethrough text
<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!



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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

```
<a href="http://TechByWebCoder.netlify.app/">Visit Xitec Solutions</a>
```

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:



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Example

```
<a href="http://www.xitecsolutions.com/" target="_blank">Visit Xitec Solutions!</a>
```

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:

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

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

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

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

```
<a href="http://www.xitecsolutions.com/html_links.htm#tips">  
Visit the Useful Tips Section</a>
```

HTML Link Tags

Tag	Description
<u><a></u>	Defines an anchor



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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).



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



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HTML Tables

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

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). `td` stands for "table data," and holds the content of a data cell. A `<td>` tag can contain text, links, images, lists, forms, other tables, etc.

Table Example

```
<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 the HTML code above looks in a browser:

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

```
<table border="1">
<tr>
```



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

HTML Table Headers

Header information in a table are defined with the `<th>` tag. All major browsers will display the text in the `<th>` element as bold and centered.

```
<table border="1">  
<tr>  
<th>Header 1</th>  
<th>Header 2</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 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.



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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
<code><table></code>	Defines a table
<code><th></code>	Defines a table header
<code><tr></code>	Defines a table row
<code><td></code>	Defines a table cell
<code><caption></code>	Defines a table caption
<code><colgroup></code>	Defines a group of columns in a table, for formatting
<code><col /></code>	Defines attribute values for one or more columns in a table
<code><thead></code>	Groups the header content in a table
<code><tbody></code>	Groups the body content in a table
<code><tfoot></code>	Groups the footer content in a table

HTML Lists

The most common HTML lists are ordered and unordered lists:

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An ordered list:

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

An unordered list:

- 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 `<ul>` tag. Each list item starts with the `<li>` tag.

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

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

How the HTML code above looks in a browser:

- Coffee
- Milk

HTML Ordered Lists

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

The list items are marked with numbers.

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

How the HTML code above looks in a browser:

1. Coffee



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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

Milk

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.



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HTML List Tags

Tag Description

`<ol>` Defines an ordered list

`<ul>` Defines an unordered list

`<li>` 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



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`<input type="text" />` defines a one-line input field that a user can enter text into:

`<form>`

First name: `<input type="text" name="firstname" />``
`

Last name: `<input type="text" name="lastname" />`

`</form>`

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>`

Password: `<input type="password" name="pwd" />`

`</form>`

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>`

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

`<input type="radio" name="sex" value="female" />` Female

`</form>`

How the HTML code above looks in a browser:

☐ Male

☐ Female



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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:

☐ I have a bike
☐ 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:

Username:

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
<code><form></code>	Defines an HTML form for user input
<code><input /></code>	Defines an input control
<code><textarea></code>	Defines a multi-line text input control

[<label>](#) Defines a label for an input element
[<fieldset>](#) Defines a border around elements in a form
[<legend>](#) Defines a caption for a fieldset element
[<select>](#) 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
[<button>](#) 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:



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```
<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
<frame />	Defines a sub window (a frame)
<noframes>	Defines a noframe section for browsers that do not handle frames



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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 src="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>`
`<p><a href="http://www.xitecsolutions.com" target="iframe_a">`
`xitecsolutions.com</a></p>`



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HTML iframe Tag

Tag	Description
<code><iframe></code>	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

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)

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 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.



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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)



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```
#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

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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 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.

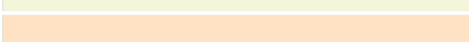
Click on a color name (or a hex value) to view the color as the background-color along with different text colors:
Sorted by Color Name

[Same list sorted by hex values](#)

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

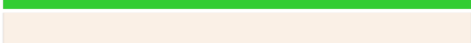
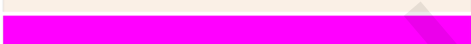
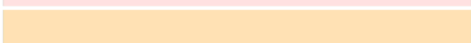
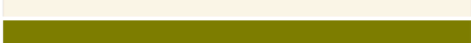
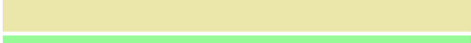


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<u>Aquamarine</u>	<u>#7FFFD4</u>		<u>Shades</u>	<u>Mix</u>
<u>Azure</u>	<u>#F0FFFF</u>		<u>Shades</u>	<u>Mix</u>
<u>Beige</u>	<u>#F5F5DC</u>		<u>Shades</u>	<u>Mix</u>
<u>Bisque</u>	<u>#FFE4C4</u>		<u>Shades</u>	<u>Mix</u>
<u>Black</u>	<u>#000000</u>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

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<u>LightSlateGrey</u>	#778899		Shades	Mix
<u>LightSteelBlue</u>	#B0C4DE		Shades	Mix
<u>LightYellow</u>	#FFFFE0		Shades	Mix
<u>Lime</u>	#00FF00		Shades	Mix
<u>LimeGreen</u>	#32CD32		Shades	Mix
<u>Linen</u>	#FAF0E6		Shades	Mix
<u>Magenta</u>	#FF00FF		Shades	Mix
<u>Maroon</u>	#800000		Shades	Mix
<u>MediumAquaMarine</u>	#66CDAA		Shades	Mix
<u>MediumBlue</u>	#0000CD		Shades	Mix
<u>MediumOrchid</u>	#BA55D3		Shades	Mix
<u>MediumPurple</u>	#9370D8		Shades	Mix
<u>MediumSeaGreen</u>	#3CB371		Shades	Mix
<u>MediumSlateBlue</u>	#7B68EE		Shades	Mix
<u>MediumSpringGreen</u>	#00FA9A		Shades	Mix
<u>MediumTurquoise</u>	#48D1CC		Shades	Mix
<u>MediumVioletRed</u>	#C71585		Shades	Mix
<u>MidnightBlue</u>	#191970		Shades	Mix
<u>MintCream</u>	#F5FFFA		Shades	Mix
<u>MistyRose</u>	#FFE4E1		Shades	Mix
<u>Moccasin</u>	#FFE4B5		Shades	Mix
<u>NavajoWhite</u>	#FFDEAD		Shades	Mix
<u>Navy</u>	#000080		Shades	Mix
<u>OldLace</u>	#FDF5E6		Shades	Mix
<u>Olive</u>	#808000		Shades	Mix
<u>OliveDrab</u>	#6B8E23		Shades	Mix
<u>Orange</u>	#FFA500		Shades	Mix
<u>OrangeRed</u>	#FF4500		Shades	Mix
<u>Orchid</u>	#DA70D6		Shades	Mix
<u>PaleGoldenRod</u>	#EEE8AA		Shades	Mix
<u>PaleGreen</u>	#98FB98		Shades	Mix
<u>PaleTurquoise</u>	#AFEEEE		Shades	Mix
<u>PaleVioletRed</u>	#D87093		Shades	Mix
<u>PapayaWhip</u>	#FFEFD5		Shades	Mix
<u>PeachPuff</u>	#FFDAB9		Shades	Mix
<u>Peru</u>	#CD853F		Shades	Mix
<u>Pink</u>	#FFC0CB		Shades	Mix
<u>Plum</u>	#DDA0DD		Shades	Mix



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



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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

```
<p>This is a paragraph</p>
<br /> (line break)
<hr /> (horizontal rule)
<pre>This text is preformatted</pre>
```

Logical Styles

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



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Physical Styles

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

`<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/"></a>`

Mailto link: `<a href="mailto:webmaster@example.com">Send e-mail</a>`

A named anchor:

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

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

Unordered list

`<ul>`

`<li>Item</li>`

`<li>Item</li>`

`</ul>`

Ordered list

`<ol>`

`<li>First item</li>`

`<li>Second item</li>`

`</ol>`

Definition list

`<dl>`

`<dt>First term</dt>`

`<dd>Definition</dd>`

`<dt>Next term</dt>`

`<dd>Definition</dd>`

`</dl>`

Tables

`<table border="1">`

`<tr>`

`<th>Tableheader</th>`

`>`

`<th>Tableheader</th>`

`>`



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```
</tr>
<tr>
<td>sometext</td>
<td>sometext</td>
</tr>
</table>
```

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 ©



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