

# **HTML**

# **SHORT NOTES**

**HTML**



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# WHAT IS HTML ?

- **HTML Stands for Hyper Text Markup Language.**  
**HTML is the most widely used language on the web to develop web pages.**
- **HTML was Developed by Berners-Lee in late 1991.**
- **Tim Berners-Lee is called the father of HTML.**
- **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 <b> and </b>.**
- **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>
```

## 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>
- <h4>This is a heading</h4>
- <h5>This is a heading</h5>
- <h6>This is a heading</h6>

# HTML Paragraphs

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

Example :

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

# HTML Links

- HTML links are defined with the `<a>` tag.

Example :

- `<a href="https://www.webstromtech.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 `<img>` 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: Example :

Start tag *	Element content	End tag *
<p>	This is a paragraph	</p>
<a href="1.html">	This is a Link	</a>

- 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> My First Paragraph </p>
</body>
</html>
```

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**

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://www.xitecsolutions.com">This is a link</a>

## **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	classname	Specifies a classname for an element
id	id	Specifies a unique id for an element
style	style_definition	Specifies a 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 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.**
- **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>	Defines an HTML document
<body>	Defines the document's body
<h1> to <h6>	Defines HTML headings
<hr />	Defines a horizontal line
<!-->	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.

## HTML Paragraphs

- 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.
- 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
 	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 **<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
<b>&lt;b&gt;</b>	Defines bold text
<b>&lt;big&gt;</b>	Defines big text
<b>&lt;em&gt;</b>	Defines emphasized text
<i>&lt;i&gt;</i>	Defines italic text
<b>&lt;small&gt;</b>	Defines small text
<b>&lt;strong&gt;</b>	Defines strong text
<b>&lt;sub&gt;</b>	Defines subscripted text
<b>&lt;sup&gt;</b>	Defines superscripted text
<b>&lt;ins&gt;</b>	Defines inserted text
<b>&lt;del&gt;</b>	Defines deleted text

# HTML "Computer Output" Tags

Tag	Description
<code>	Defines computer code text
<kbd>	Defines keyboard text
<samp>	Defines sample computer code
<tt>	Defines teletype text
<var>	Defines a variable
<pre>	Defines preformatted text

# HTML Citations, Quotations, and Definition Tags

Tag	Description
<abbr>	Defines an abbreviation
<acronym>	Defines an acronym
<address>	Defines contact information for the author/owner of a document
<bdo>	Defines the text direction
<blockquote>	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 <font> tag:

Example :

```
<p>
<font size="5" face="arial" color="blue">
This paragraph is in Arial, size 5, and in red text color. </font>
</p>
<p>
<font size="3" face="verdana" color="white">
This paragraph is in Verdana, size 3, and in blue text color. </font>
</p>
```

# HTML Styles - CSS

- CSS is used to style HTML elements.

Look! Styles and colors

THIS TEXT IS IN VERDANA AND BLUE

THIS TEXT IS IN TIMES AND WHITE

**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>
<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 <font> 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> <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
<font> 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!**

# 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://www.webstromtech.com/">Visit webstromtech</a>` which will display like this: webstromtech.com
- Clicking on this hyperlink will send the user to webstromtech.com 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 :**

- `<a href="http://www.webstromtech.com/" target="_blank">Visit webstromtech.com </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="cheatsheets">cheatsheets Section</a>`
- Create a link to the "cheatsheets Section" inside the same document:
- `<a href="#cheatsheets">Visit the cheatsheets Section</a>`
- Or, create a link to the "cheatsheets" from another page:
- `<a href="http://www.webstromtech.com/html_links.htm#cheatsheets"> Visit the cheatsheets Section</a>`

# HTML Link Tags

Tag	Description
<a>	Defines an anchor

# HTML Images

Example :



## HTML Images - The <img> 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 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:
- 
- **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
<img />	Defines an image
<map>	Defines an image-map
<area />	Defines a clickable area inside an image-map

## HTML Tables

Apples	44%
Bananas	23%
Oranges	13%
Other	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>  
<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.

## **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
<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 a group of columns in a table, for formatting
<col />	Defines attribute values for one or more columns in a table
<thead>	Groups the header content in a table
<tbody>	Groups the body content in a table
<tfoot>	Groups the footer content in a table

# **HTML Lists**

- The most common HTML lists are ordered and unordered lists:

### **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
- 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
<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

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

<form>

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

# 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:  **SUBMIT**

- 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>	Defines an HTML form for user input
<input />	Defines an input control
<textarea>	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:

```
<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

# 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.webstromtech.com" target="iframe_a">
webstromtech.com</a></p>
```

## HTML iFrame Tags

Tag	Description
<iframe>	Defines an inline sub window (frame)

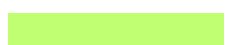
## HTML Colors

- 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

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)
	#COCOCO	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 ( $256 \times 256 \times 256$ ).
- 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 in next page.

COLOR	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:

COLOR	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)

COLOR	COLOR HEX	COLOR RGB
#F8F8F8	#F8F8F8	rgb(248,248,248)
FFFFFF	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:

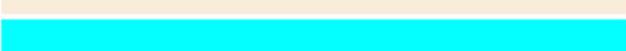
000000	000033	000066	000099	0000CC	0000FF
003300	003333	003366	003399	0033CC	0033FF
006600	006633	006666	006699	0066CC	0066FF
009900	009933	009966	009999	0099CC	0099FF
00CC00	00CC33	00CC66	00CC99	00CCCC	00CCFF
00FF00	00FF33	00FF66	00FF99	00FFCC	00FFFF
330000	330033	330066	330099	3300CC	3300FF
333300	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	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	COLOR HEX	COLOR NAME
	#F0F8FF	AliceBlue
	#FAEBD7	AntiqueWhite
	#00FFFF	Aqua

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

COLOR	COLOR HEX	COLOR NAME
	#00BFFF	DeepSkyBlue
	#696969	DimGray
	#696969	DimGrey
	#1E90FF	DodgerBlue
	#B22222	FireBrick
	#FFFFA0	FloralWhite
	#228B22	ForestGreen
	#FF00FF	Fuchsia
	#DCDCDC	Gainsboro
	#F8F8FF	GhostWhite
	#FFD700	Gold
	#DAA520	GoldenRod
	#808080	Gray
	#808080	Grey
	#008000	Green
	#ADFF2F	Green Yellow
	#FOFFF0	HoneyDew
	#FF69B4	HotPink
	#CD5C5C	IndianRed
	#4B0082	Indigo
	#FFFFFF	Ivory
	#FOE68C	Khaki
	#E6E6FA	Lavender
	#FFF0F5	LavenderBlush
	#7CFC00	LawnGreen
	#FFFACD	LemonChiffon
	#ADD8E6	LightBlue
	#F08080	LightCoral
	#E0FFFF	LightCyan
	#FAFAD2	LightGoldenRod Yellow
	#D3D3D3	LightGray
	#D3D3D3	LightGrey
	#90EE90	LightGreen
	#FFB6C1	LightPink
	#FFA07A	LightSalmon
	#20B2AA	LightSeaGreen
	#87CEFA	LightSkyBlue
	#778899	LightSlateGray

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

COLOR	COLOR HEX	COLOR NAME
	##BOE0E6	PowderBlue
	#800080	Purple
	#FF0000	Red
	#BC8F8F	RosyBrown
	#4169E1	RoyalBlue
	#8B4513	SaddleBrown
	#FA8072	Salmon
	#F4A460	SandyBrown
	#2E8B57	SeaGreen
	#FFF5EE	SeaShell
	#A0522D	Sienna
	#COCOCO	Silver
	#87CEEB	SkyBlue
	#6A5ACD	SlateBlue
	#708090	SlateGray
	#708090	SlateGrey
	#FFFFFA	Snow
	#00FF7F	SpringGreen
	#4682B4	SteelBlue
	#D2B48C	Tan
	#008080	Teal
	#D8BFD8	Thistle
	#FF6347	Tomato
	#40E0DO	Turquoise
	#EE82EE	Violet
	#F5DEB3	Wheat
	#FFFFFF	White
	#F5F5F5	WhiteSmoke
	#FFFF00	Yellow
	#9ACD32	YellowGreen

# HTML Color Values

Sorted by Hex Value

Same list sorted by color name

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

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

COLOR	COLOR HEX	COLOR NAME
	#ADD8E6	LightBlue
	#ADFF2F	GreenYellow
	#AFEEEE	PaleTurquoise
	#B0C4DE	LightSteelBlue
	#BOE0E6	PowderBlue
	#B22222	FireBrick
	#B8860B	DarkGoldenRod
	#BA55D3	MediumOrchid
	#BC8F8F	RosyBrown
	#BDB76B	DarkKhaki
	#COCOCO	Silver
	#C71585	MediumVioletRed
	#CD5C5C	IndianRed
	#CD853F	Peru
	#D2691E	Chocolate
	#D2B48C	Tan
	#D3D3D3	LightGray
	#D3D3D3	LightGrey
	#D87093	PaleVioletRed
	#D8BFD8	Thistle
	#DA70D6	Orchid
	#DAA520	GoldenRod
	#DC143C	Crimson
	#DCDCDC	Gainsboro
	#DDA0DD	Plum
	#DEB887	BurlyWood
	#E0FFFF	LightCyan
	#E6E6FA	Lavender
	#E9967A	DarkSalmon
	#EE82EE	Violet
	#EEE8AA	PaleGoldenRod
	#F08080	LightCoral
	#FOE68C	Khaki
	#FOF8FF	AliceBlue
	#FOFFFF	HoneyDew
	#FOFFFF	Azure
	#F4A460	SandyBrown
	#F5DEB3	Wheat

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

COLOR	COLOR HEX	COLOR NAME
	#FFFFFF0 #FFFFFF	Ivory White

## 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>
```

# 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:webstromtech@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>
```

```
</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

&lt; is the same as <

&gt; is the same as >

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