

# HTML

## (Hypertext markup language)

### What is HTML?

Hypertext Markup Language (HTML) is a syntax used to format a text document on the web. These documents are interpreted by web browsers such as Internet Explorer and Netscape Navigator.

HTML can be created as standard ASCII text with "tags" included to pass on extra information about character formatting and page layout to a web browser. The fact that HTML is, in essence, ASCII text is what makes it so universally compatible. This fact also makes it easy to edit: almost all computers are equipped with a text editor that can be used to edit HTML.

### How can I create an HTML page?

HTML pages can be created in a number of ways. An HTML page is essentially a text document. You can create one in the simplest of text editors such as Microsoft Notepad in Windows, SimpleText in Mac OS, or Pico in Unix. Using these tools, you will need to edit the HTML code and insert HTML tags where necessary. You can also create pages using WYSIWYG (What You See Is What You Get) editors which do most of the work of coding for you. With WYSIWYG editors, such as Macromedia Dreamweaver and Adobe GoLive, you can type in a page as you would in a word processor, and the software adds formatting tags where necessary. You can then look into the code for fine-tuning.

Note: There are some WYSIWYG editors that do not create good HTML code. For instance, Microsoft FrontPage and particularly Microsoft Word will add extra tags that can make an HTML document quite large. Larger documents take longer to download. While you may not notice this much while on campus at NIH, modem users at home can be inconvenienced by long waits.

**To save a file as HTML**, open the text you wish to edit or type it into Notepad, and choose "File...Save As..." from the menu bar. Under "File name" give your file a name and change its extension from ".txt" to ".html." Under "Save as type" switch to "All Files" then click "OK." Notepad will save your file as ASCII text, and the ".html" or ".htm" extension will allow your browser to recognize it as an HTML file. (Hint - When naming an HTML file, it is a good

idea to use a name without any spaces or uppercase letters. So, if you wanted to name a file Test page, some options would be testpage or test\_page.)

**To open your file in Netscape**, choose "File...Open Page..." from Netscape's menu bar, and click "Choose File." Navigate to the drive and directory in which you saved your HTML, and double click on the file.

**To edit your HTML**, go back to Notepad, make your changes, and choose "File...Save" from the menu bar. Then go back to Netscape, and click the "Reload" button to bring in your latest changes.

## What are Tags?

Tags are what we use to structure an HTML page. Tags start with a '<', then the command, and end with a '>'. For example, the center tag is '<center>'. To stop centering something, we need an ending, or closing tag. Closing tags look exactly like opening tags, except after the first '<' there is a '/'. In other words, the closing tag for center is '</center>'.

## HTML Structure

An HTML document has a definite structure that must be specified to the browser. The HTML's beginning and end must be defined, as well as the document's HEAD (which contains information for the browser that does not appear in the browser's main window) and its BODY (which contains the text that will appear in the browser's main window). The use and order of tags that define the HTML structure are described below.

<html>	Marks the beginning of your HTML
<head>	Begins the heading section of an HTML document
<title> ... </title>	Gives an HTML document a title that appears on the browser menu bar, also will appear on search engines or bookmarks referencing your site (must appear between the <HEAD> ... </HEAD> tags; should be straight text, no tags)
</head>	Defines the end of the heading
<body>	Defines the body of an HTML document (text contained within the <BODY> ... </BODY> tags appears in the main browser window). Can be used with "BGCOLOR", "TEXT", "LINK", and "VLINK" attributes
</html>	Defines the end of your HTML document

## Character Formatting and Page Layout

The following tags are used for character formatting (bold, italicized or underlined text, for instance) and page layout (where and in what context that text appears on the page). These tags are used in the body of an HTML document only.

<!--...-->	<i>Comment.</i> This is a note for you. It will not be visible on the web page.
<h1> ... </h1>	<i>Heading tag.</i> <H1> through <H6> are valid. Can be used with the "ALIGN" attribute.
<p> ... </p>	Sets a <i>paragraph</i> apart from other text. Adds a line break after. </P> is optional. Can be used with the "ALIGN" attribute.
 	<i>Line break</i> (new line). Can be used with the "CLEAR" attribute.
<hr>	<i>Horizontal rule.</i> Can be used with "SIZE", "WIDTH" and "NOSHADE" attributes.
<ol> ... </ol>	Defines the beginning and end of an <i>ordered list</i> (numbered).
<ul> ... </ul>	<i>Unordered list</i> (bulleted).
<li>	<i>List Item.</i> Must appear before each item in any of the above lists to set it apart from other items.
<center> ... </center>	<i>Centers</i> any item or group of items
<em> ... </em>	<i>Emphasized text</i> (usually italic).
<strong> ... </strong>	<i>Strong emphasis</i> (usually bold).
<code> ... </code>	A sample of <i>code</i> (usually courier font).
<font> ... </font>	Changes the appearance of the text in your page. Can be used with "SIZE", "COLOR" and "FACE" attributes.
<table> ... </table>	Creates <i>Table</i> . Can be used with "BORDER", "ALIGN", and "WIDTH" attributes.
<tr> ... </tr>	Table <i>row</i>
<th> ... </th>	Table <i>header</i> . Can be used with "ALIGN", "VALIGN", "COLSPAN", "ROWSPAN", and "WIDTH" attributes.
<td> ... </td>	Table <i>data</i> . Can be used with "ALIGN", "VALIGN", "COLSPAN", "ROWSPAN", and "WIDTH" attributes.
<html>element...</html>	

An HTML document will always begin and end with a <html> tag and respective </html>. This is the standard structure of an HTML.

Please open a Notepad and copy the next code :

```
<html>
</html>
```

Save the document from the File/Save As menu. Select All Files and name the new created file "index.html". Hit Save. Now open the file in a browser so that you have the possibility to refresh the page (F5).

If you did everything well you will be able to see your web page white !

## <head>

This tag is immediately after <html> and is used to indicate to the browser, useful information like : page's title , content ( used by the old searching engines) and many others

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## <title>

Is situated between <head> and </head>. This tag is the one who give to the page the name. The name will be showed in the browser, usually in the upper left side. In the previously example the title was " My page !" and it will be showed as the browser's title.

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## <h2>

This is the title that appears in the page, before of the content and it will be bigger than the content's character. <h2> means that is the second sized character between the other six already existent. <h1> is the biggest character and <h6> is the smallest.

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## <p>

Is the tag that marks the opening and the closing of an paragraph. So when you start a paragraph assure yourself that you used <p> in the beginning and </p> and in the end.

## Line break

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A line break is different from the other tags that we have seen before. The place we put it in the source code of the document, will end the line and it will go down with a line, letting a space which is smaller than the one from the paragraph. In the paragraph is used, as you can see, in the next example.

```
<p>
Charles Brownstone <br />
Florida Street No 1 <br />
New York, USA <br />
</p>
```

### Display

```
Charles Brownstone
Florida Street No 1
New York, USA
```

## HTML - Titles 1:6 (Headings)

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In HTML, a title is exactly what it looks : a real title or a subtitle. When you put a text in a tag `<h1>`, the text will be bolded, and the dimension of the letter will be the same with the number of the heading. The titles can have dimensions from 1 to 6, where 1 is the smallest dimension and 6 the biggest dimension.

```
<body>
<h1>Headings</h1>
<h2>are</h2>
<h3>great</h3>
<h4>for</h4>
```

```
<h5>titles</h5>

<h6>and subtitles</h6>

</body>
```

Display

**Headings**  
**are**  
**great**  
**for**  
**titles**  
**and subtitles**

You can see that every title has a linebreak before and after. Every time you put a heading, the browser will give automatically a space in the line before it and after as well.

## HTML - Horizontal Rule

---

Use `<hr/>` to create a horizontal line. This tag is similar with line break.

```
<hr/>

Use

<hr/><hr/>

With

<hr/>

Caution
```

```
<hr />
```

## Display

---

Use

---

With

---

Caution

---

The horizontal line can be useful in different circumstances, like you can see in the next example : a footnote.

```
<hr />
```

```
<p>1. "The Hobbit", JRR Tolkein.<br />
```

```
2. "The Fellowship of the Ring" JRR Tolkein.</p>
```

## Display

---

1. "The Hobbit", JRR Tolkein.

2. "The Fellowship of the Ring" JRR Tolkein.

As you can see, everything that this tag does is to draw a horizontal line separating different parts of the content or it just decorates the page. Use it with skill and it will give unexpected results.

## HTML - Lists

---

HTML has three types of lists. `<ol>` shows a ordinate list while `<ul>` a disorderly one, and for making a definition list is used `<dl>`. Use the attributes `type` and `start` for making a list in order with your requests.

- `<ul>` - unsorted list, bullets

- `<ol>` - ordered list, umbers
  - `<dl>` - definition list.
- 

## HTML - The ordered list

Use `<ol>` tag for starting a ordered list. if you put `<li></li>` (list item) between

```
<h4 align="center">Objectives</h4>

<ol>

<li>To find a job </li>

<li>To take a lots of money </li>

<li>To move in an other city</li>

</ol>
```

### Display

```
Objectives

1. To find a job
2. To take a lots of money
3. To move in an other city
```

You can start your list with any number you want just specifying it with the help of the start attribute.

```
<h4 align="center">Objective</h4>

<ol start="4" >

<li>To find a job </li>

<li>To take a lots of money </li>
```



```
<li>To move in an other city</li>

</ol>
```

Display

## Objectives

4. To find a job
5. To take a lots of money
6. To move in an other city

This element is not doing anything out of common but is pretty useful sometimes.

---

## HTML - Other types of ordered lists

Excluding the upper example there are other for types of ordered lists. In the place of the arabian numbers you can use roman numbers or as well letters but in both cases it can be used only small letters or capital letters. Use the type attribute if you want to modify the type of the numbering

```
<ol type="a">

<ol type="A">

<ol type="i">

<ol type="I">
```

Display

Small letters	Capital letters	Roman numbers with small letters	Roman numbers with capital letters
a. A job	A. A job	i. A job	I. A job
b. Money	B. Money	ii. Money	II. Money
c. Other city	C. Other city	iii. Other city	III. Other city

---

## Unsorted list

It makes a unsorted list with the help of the <ul> tag. The disordered lists are splinted in many types : squares, bullets, and circles. The standard value gave by the majority of the browsers are bullets.

```
<h4 align="center">Shopping list </h4>

<ul> <li>milk</li>

<li>cheese</li>

<li>eggs</li>

<li>sugar</li>

</ul>
```

[View the example](#)

I have put together in the next example how it looks the other types of unsorted lists.

```
<ul type="square">

<ul type="disc">

<ul type="circle">
```

[View the example](#)

---

## HTML - The definition list

As well you can make definition lists using the <dl> tag. This list will give the word above de definition. It is indicated to bold the word so that it will be more evident.

```
<dl>

<dt><b>Quieso</b>

</dt> <dd>Spanish word for cheese .</dd>
```

```
<dt><b>Ordenador</b></dt>

<dd>Spanish word for Computer </dd>

</dt>
```

[View the example](#)

## HTML - Formatting elements

---

As you put as many texts as you can in your page, you will need new elements of formatting your page as you want and need. In [attribute's tutorial](#) we have talked about ways of adding style to your wanted elements. This formatting tags can make elements bold italic underlined cut and not only

```
<p>Example of <b>Bold Text</b></p>

<p>Example of <em>Emphasized Text</em></p>

<p>Example of <strong>Strong Text</strong></p>

<p>Example of <i>Italic Text</i></p>

<p>Example of <sup>superscripted Text</sup></p>

<p>Example of <sub>subscripted Text</sub></p>

<p>Example of <del>struckthrough Text</del></p>

<p>Example of <code>Computer Code Text</code></p>
```

### Display

```
Example of Bold Text
Example of Emphasized Text
Example of Strong Text
Example of Italic Text
Example of superscripted Text
Example of subscripted Text
Example of struckthrough Text
Example of Computer Code Text
```

# HTML - Font and Basefont

---

The <font> tag is used for modifying the type of a text, the size and the color. Use "size", "color" and "face" attributes to personalize your text and the <basefont> tag to set the color, size and the style of a whole text.

Mostly the "font" and "basefont" tags are not used much because is used CSS to establish a text`s attributes.

---

## The Font Size

Set the size of your font. There are accepted values between 1 (the smallest) and 7(the biggest).The standard value of a text is 3.

```
<p>
<font size="5">This is font size 5</font>
</p>
```

## Display

This is font size 5

---

## The font color

Set the color of the text

```
font color="#990000">This text is hexcolor #990000</font>
<br />
<font color="red">This text is red</font>
```

This text is hexcolor #990000  
This text is red

---

## Font Face

Pick a letter style using the "facefont" tag. You can choose any font you have installed, but choose the font with care because the user on your page can't see the font if he hasn't got installed your font. He will see the default font meaning Times New Roman. The solution would be to choose many fonts who look the same.

```
<p>
<font face="Bookman Old Style, Book Antiqua, Garamond">This
paragraph has had its font...</font>
<p>
```

This paragraph has had its font formatted by the font tag!

---

## Basefont

With the help of the "basefont" tag you can establish the default value of the font in your web page. We recommend to specify a "basefont" in case you will use the font in HTML. What is next is an model.

```
<html> <body>
<basefont size="2" color="green">
<p>This paragraph has had its font...</p>
<p>This paragraph has had its font...</p>

<p>This paragraph has had its font...</p>
</basefont>
</body> </html>
```

This paragraph has had its font formatted by the basefont tag!  
This paragraph has had its font formatted by the basefont tag!  
This paragraph has had its font formatted by the basefont tag!

With all these, "basefont" is somehow exceeded. In the close future is possible that it won't work with it anymore but with the help of CSS.

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## Attributes

Attribute=	"Value"	Description
------------	---------	-------------

size=	"Num. Value 1-7"	Size of your text, 7 is biggest
color=	"rgb,name,or hexadecimal"	Change font color
face=	"name of font"	Change the font type

---

## The beginning "by the book"

```
<p>  
  
<font size="7" face="Georgia, Arial"  
color="maroon">C</font>ustomize your font to achieve a  
desired look.  
  
</p>
```

**C**ustomize your font to achieve a desired look.

## HTML - Hypertext Reference / href

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The "href" attribute names the connection to an other web page. Actually is the place where it will be sent the user who clicks on the link.

Links can be :

- intern - to specifically places from the page(anchors)>
- locals - to other pages from the same domain
- globals - to other domains, outside the site

Internal - href="#anchorname"

Local - href="../img/foto.jpg"

Global - href="http://www.tutorialehtml.com/"

---

## HTML - HTML - Text links

To set the beginning and the end of an anchor it can be used `<a></a>`. Choose the type of the attribute that you need then put it inside the tag.

Example:

```
<a href="http://www.tutorialehtml.com" target="_blank" >Zizix  
Tutorials</a>
```

Display

[Zizix Tutorials](http://www.tutorialehtml.com)

## HTML - Link targets

The "target" attribute tells to the browser if it needs to open a new page in a new window or in the same window.

target="	_blank"	Opens a new window
	_self"	Opens a page in the same window
	_parent"	Opens a new page in a superior frame of the link
	_top"	Opens a new page in the same browser canceling all the frames

The next example shows how a new page can be opened in a window of the browser. In this way we can remain on the tutorial's page and open a new navigation page.

```
<a href="http://www.google.com/" target="_blank" >Google </a>
```

Display

## HTML - Inserting images

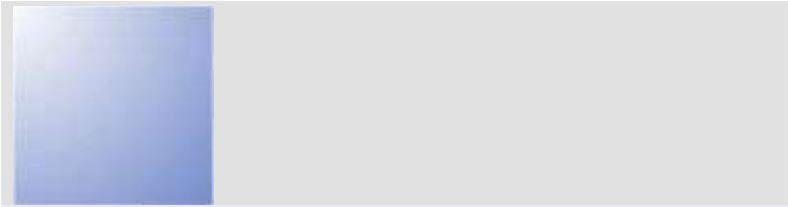
---

The images are very important in a web page. It is therefore important to use them in the right way. Insert images using the tag `<img/>`.

```

```

### Display



### HTML - img src

"src" is shortcut for "source". This attribute is used to indicate the photography location. As explained in the links Tutorial you can use any URL to point to the file.

Local source	Description
<code>src="image.jpg"</code>	the picture is located on the same level as .html file
<code>src="../image.jpg"</code>	the picture is located in previous level as .html file.
<code>src="../img/image.jpg"</code>	the picture is located in the "img" folder in a previous level as .html file

You may also address the full URL.



For example `src="http://www.tutoriahtml.com/img/image.jpg`. The URL pattern is not recommended because in case you change the domain you will have to change as well the addresses of all photos. Or if the image is stored on another domain:

```
src="http://www.domeain.com/image.jpg.
```

The fact that storing the image on an alternative server, presents a great advantage if the space provided for your domain is a limited one

---

## HTML - "alternative" attribute for images

Attribute "alt" is used to display text instead of image in case your browser for some reason can not display the picture or when a user has the "ShowImage" option unselected.

```

```

### Display



---

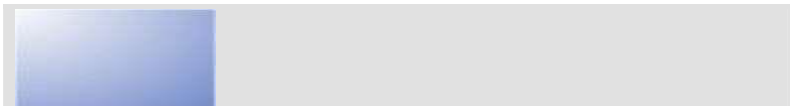
## HTML - the height and width of an image

To determine the height and width of an image is used and "height" attributes "width". Logical, no!

```

```

### Display



---

## HTML - horizontal and vertical alignment of an image

For this we will use the attributes align and valign. The options offered by these attributes are:

### 1. Align (horizontal)

- right
- left
- center

### 2. Valigh (vertical)

- top
- bottom
- center

Example:

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

This is the second paragraph...
</p>
<p>This is the third paragraph...</p>
```

## Display

This is the first paragraph, This is the first paragraph, This is the first paragraph, This is the first paragraph, This is the first paragraph.

This is the second paragraph, This is the second paragraph, This is the second paragraph, This is the second paragraph, This is the same second paragraph, This is the same second paragraph, This is the second paragraph, This is the second paragraph, This is the second paragraph, This is the second paragraph, This is the second paragraph, This is the second paragraph, This is the second paragraph, This is the second paragraph, This is the second paragraph, This is the second paragraph, This is the second paragraph, This is the second paragraph, This is the second paragraph.

This is the third paragraph, This is the third paragraph, This is the third paragraph, This is the third paragraph, This is the third paragraph.

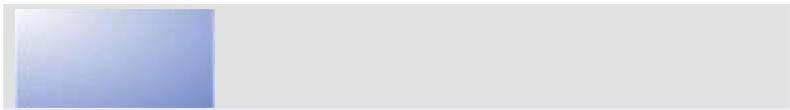
---

## HTML - Using images as links

This is only an introduction, we will talk more about this in the next tutorial. The images are very useful as links and can be formed as follows

```
<a href="http://www.tutoriahtml.com">  
 </a>
```

### Display



The image above will send to the home page. You can change it to your start page and here you have a picture with a link to your start page

---

## HTML - Thumbnails

Thumbnails are miniature version (less kilobytes) of images that have a much higher quality. To create a thumbnail, save the image in a lower quality than the original one. then link this small image to the original high quality image.

```
<a href="../img/fereastr.jpg">  </a>
```

### Display



## HTML - Forms

---

Forms are one of the most important tools used by a webmaster to gather important information about an internet user, information's such as e-mail, name, address, phone or any other kind of info.

Based on the necessity the information can even be stored on a file, you can make statistics, register forms or subscriptions to the information presented in your web page, and many others.

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## HTML - Text fields

Before getting into detail, we have to expose a little a form's basics. Text fields have got a few attributes that have to be mentioned since the beginning:

- **type** - establishes the text field's type. For example: text, sending, or password.
- **name** - gives the field a name for further reference at a later date.
- **size** - sets the size of the field.
- **maxlength** - the maximum value of characters that can be typed.

```
<form method="post" action="mailto:youremail@email.com">  
  
Name: <input type="text" size="10" maxlength="40"  
name="name"> <br />  
  
Password: <input type="password" size="10" maxlength="10"  
name="password">  
</form>
```

## Display



Name:

Password:

---