

1. What is HTML anyway?

HTML stands for **HyperText Markup Language**. Developed by scientist Tim Berners-Lee in 1990, HTML is the "hidden" code that helps us communicate with others on the World Wide Web (WWW).

When writing HTML, you add "tags" to the text in order to create the structure. These tags tell the browser how to display the text or graphics in the document. For example, the following document has a simple layout (structure). Notice there are three major parts: a heading, two paragraphs and a bulleted list.

HEADING
Why I like to go swimming in the summer.

PARAGRAPH
Swimming is my most favorite activity in the summer. When the sun is shining and the air is warm, you will find me dipping into my backyard pool. It's not an impressive pool, only three feet deep, but it's mine.

PARAGRAPH
There are three reasons I like to swim:

BULLETED LIST

- I get lots of exercise
- I enjoy the freedom
- I have an opportunity to be in the sun.

To achieve a similar layout in a WWW browser, you need to add tags. Here is the same document with HTML tags (red) added:

```
<html>
<head>
<title>Why I like to go swimming</title>
</head>
<body>
```

```
  <b>Why I like to go swimming in the summer. </b>
```

```
  <p>Swimming is my most favorite activity in the summer. When the sun is shining and the
  air is warm, you will find me dipping into my backyard pool. It's not an impressive pool,
  only three feet deep, but it's mine.</p>
```

PARAGRAPH

```
<p>There are three reasons I like to swim:</p>
```

BULLETED LIST

```
<ul>  
<li>I get lots of exercise</li>  
<li>I enjoy the freedom</li>  
<li>I have an opportunity to be in the sun.</li>  
</ul>  
</body>  
</html>
```

And here is the resulting page in your [browser](#). Notice the tags are gone? That's because the tags tell the browser how to display files but do not show themselves.

Viewing the hidden code!

When learning something new, it often helps to see how others are doing the same thing. This is especially easy with HTML because every file that comes through your browser is formatted in HTML. So how do you see other people's stuff? By viewing their source code. Here's how:

- Go online
- Open Internet Explorer or Netscape® Navigator
- Enter the address to your favorite site
- Go to [View](#) on the toolbar and then click on [Source](#) for Explorer or [Page Source](#) for Navigator. In a matter of seconds, you will see the hidden code of that page.

By viewing the source code, you can see what the "big" guys are doing. In fact, viewing other people's code is considered one of the best ways to learn how HTML works.

Now that you've had a little taste of what it's like to create an HTML document, it is time to begin creating one from scratch.

2. Basic Concepts

The tools you need

Fortunately, HTML is written in plain text. That means you don't need any fancy software programs like a word processor to create your HTML files. All you need is a simple text-editor that's already on your system. For MACs, that would be [SimpleText](#) and for Windows, [Notepad](#).

Some rules

As with most things in life, there are rules. In HTML, the rules are fairly simple. For starters, HTML tags are always surrounded by what are called angle brackets < and >. You'll find these brackets on your keyboard just above the comma and period.

Elements

The words/letters between these two angle brackets are called **elements**. These are the coded commands within HTML. Elements tell the browser how to display the web page. For example: `<hr>` tells the browser to display a horizontal rule; `
` tells the browser to skip a line.

Container and empty tags

There are two kinds of tags: container and empty.

The **container tag** always wraps around text or graphics and comes in a set with an opening and a closing:

`<html>` opening tag
`</html>` closing tag

Notice the forward slash (/) on the closing tag. This tells the browser that the tag has ended.

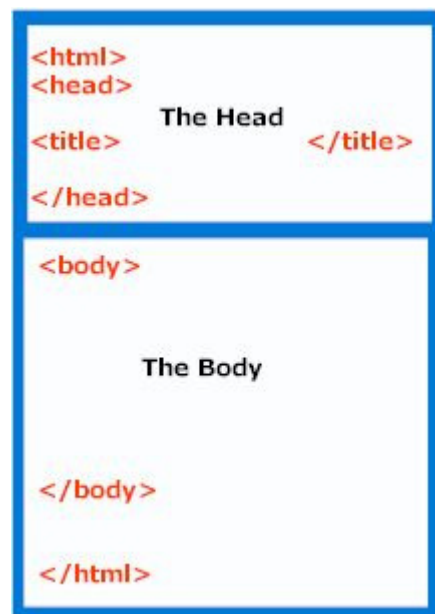
On the other hand, the **empty tag** stands alone. The tag `
` is one that adds a line break. Empty tags do not have to be wrapped around copy and do not require a closing.

Case sensitive

HTML is also **not** case sensitive. That means, you can use either lowercase or uppercase. `<HTML>` is the same as `<html>`. For consistency, use either one or the other. It's best not to mix and match. For our purposes, I have written our code in lowercase.

HTML structure.

All HTML documents are divided into two main parts: the head and the body. It goes something like this:



You must have the <html>, <head> and <body> container tags in every HTML file.

The **<html>** tag tells the browser that this is an HTML document. You must begin and end your files with this tag. The **<head>** tag contains general information like the title of your document. The **<body>** tag holds all your content: words, pictures, artwork and other stuff.

Nesting

Part of the web page structure is called nesting. Notice how the tag <title> is nested inside the <head> tag, while <head> and <body> are nested inside <html>.

Each new set of tags are nested inside other tags, just like those Russian dolls, Matryoshka. Think of it another way, like smaller boxes inside larger boxes.

3. Primary Tags

To build any web page you will need four primary tags: <html>, <head>, <title> and <body>. These are all container tags and **must appear as pairs with a beginning and an ending.**

<html>...</html>

Every HTML document begins and ends with the <html> tag. This tells the browser that the following document is an html file. Remember, tags tell the browsers how to display information.

<head>...</head>

The <head> tag contains the title of the document along with general information about the file, like the author, copyright, keywords and/or a description of what appears on the page.

<title>...</title>

Appears within the <head> tag and gives the title of the page. Try to make your titles descriptive, but not more than 20 words in length. The title appears at the very top of the browser page on the title bar.

<body>...</body>

The main content of your page is placed within the body tags: your text, images, links, tables and so on.

4. Creating your first web page

Using the primary HTML tags, mentioned in Chapter 3, you are now ready to create your first Web page.

Step 1 Open up a text editor (SimpleText for Mac or Notepad for Windows)

Step 2 Enter the following:

```
<html>
<head>
<title> This is my first web page</title>
</head>
<body>
Hello world. This is my first web page. There's more to come.
</body>
</html>
```

Step 3 Save the document as: **firstpage.html**

Your file can be saved as either an htm or html file. Remember to save your document on the computer in a place that you can find it again.

Step 4 To preview your new document, open Netscape Navigator. On the tool bar (located up near the top of the browser):

Select **File** menu.

Select **Open Page**

A dialogue box appears. Select **Choose File**

Go to where you saved your file, click on it. This will bring you back to the dialogue box, which should now be showing your file.

Click **Open**

Congratulations!

You have successfully completed your first web page. It actually doesn't get any harder than this for your simple, everyday page.

Let's continue to build on this same page by adding more tags discussed in the following pages.

5. Basic Text Formatting

After any length of time on the Internet, you'll notice that a Web page is made up of more than just plain words on a screen. There are headlines, paragraphs, graphics, colors and much more. It's a lively place to be.

Our next tags--headline, paragraph, line break and horizontal rule--will help us make our current page a lot more exciting. Let's learn how.

Headline tag

In HTML, bold copy is created by using the headline tag. There are six levels of headlines, ranging from **<h1>...</h1>** to **<h6>...</h6>**. Here is an example of the code for *all* the headline sizes:

```
<h1>Level 1 Headline</h1>
<h2>Level 2 Headline</h2>
<h3>Level 3 Headline</h3>
<h4>Level 4 Headline</h4>
<h5>Level 5 Headline</h5>
<h6>Level 6 Headline</h6>
```

Let's add a headline to our Web page document.

Step 1 Load your text editor and open your file: firstpage.html This is what you should see:

```
<html>
<head>
<title>This is my first web page.</title>
</head>
<body>
Hello world. This is my first web page. There's more to come.
</body>
</html>
```

Step 2 Add the <h1> tag to the words "Hello world." as shown in red.

```
<html>
<head>
<title>This is my first web page.</title>
</head>
<body>
<b>Hello world.</b> This is my first web page. There's more to come.
</body>
</html>
```

Step 3 Save the file

Step 4 Open up Netscape Navigator.

Go to **File** menu
Select **Open Page**
A dialogue box appears.
Select **Choose File**

Go to where you saved your file, click on it. This will bring you back to the dialogue box, which should now be showing your file.

Click **Open**

.

Paragraphs & Line Breaks

To add space between paragraphs you use the paragraph tag:

```
<p>...</p>
```

This is a container tag and must have a beginning and an ending.

To add a single line of space, you use break tag:

`
`

This is an empty tag and stands alone. You can use the `
` tag to insert one or more blank lines.

Horizontal Rule

To create a horizontal line on your page you use the empty tag:

`<hr>`

Wow, what a lot to take in. Let's apply what we've learned.

Step 1 Load your text editor.

Step 2 Open the file: `firstpage.html`. Your code should look like this:

```
<html>
<head>
<title>This is my first web page.</title>
</head>
<body>
<h1>Hello world.</h1> This is my first web page. There's more to come.
</body>
</html>
```

Let's add some more text so that we can use the new tags that we have learned. Add tags and text that appear in red.

```
<html>
<head>
<title>This is my first web page.</title>
</head>
<body>
<h1>Hello world.</h1> This is my first web page. There's more to come.
```

```
<hr>
```

```
<p>
```

```
I am learning how to use the horizontal rule, headline, paragraph and line break tags. Writing HTML isn't as hard as it appears.
```

```
</p>
```

```
<p>Here's a list of items I like about school:<br>
```

```
Science<br>
```

```
Reading<br>
```

```
But most of all--recess!<br>
```

```
</p>
</body>
</html>
```

6. Lists

People are usually in a hurry when using the Web. This behavior may be a carry over from when folks used to pay for the actual time spent on the Internet. Back in the olden days, say four years ago, users did not have the luxury of unlimited time on the Web. So they would quickly go online, get the information they needed and sign off. In this way, the user just paid for the little time used.

Things are different today. Mostly everyone has unlimited time access to the Web, but the behavior hasn't changed much. People are still in a hurry, and they don't like to read a lot of text. So putting your information in the form of a list seems to help.

Lists come in a variety of forms with most either numbered or bulleted. The numbered lists are called **ordered lists** and the bulleted lists are **unordered lists**.

Lists are nested. There is a tag that identifies the type of list, like numbered or bulleted. Then within that tag there is another tag that itemizes the list. Maybe some definitions would help.

```
<ol>...</ol>
```

The ordered list is a container tag and is used for numbered lists.

```
<ul>...</ul>
```

The unordered list is a container tag and is used for bulleted lists.

```
<li>...</li>
```

The listed item tag is a container tag and is **nested** within the ordered or unordered tags.

Here is an example of the differences between ordered and unordered lists.

An ordered (numbered) list goes like this:

```
<ol>
<li>My first item on the list.</li>
<li>My second item on the list.</li>
<li>My third item on the list.</li>
<li>My fourth item on the list.</li>
</ol>
```

In the browser it will appear like this:

1. My first item on the list.
2. My second item on the list.
3. My third item on the list.

4. My fourth item on the list.
-

An unordered (bulleted) list goes like this:

```
<ul>
<li>My first item on the list.</li>
<li>My second item on the list.</li>
<li>My third item on the list.</li>
<li>My fourth item on the list.</li>
</ul>
```

In the browser it will appear like this:

- My first item on the list.
 - My second item on the list.
 - My third item on the list.
 - My fourth item on the list.
-

Let's apply what we've learned

Step 1 Load your text editor once more and open our current HTML document: **firstpage.html**.

Step 2 Your file should appear as below:

```
<html>
<head>
<title>This is my first web page.</title>
</head>
<body>
<h1>Hello world.</h1> This is my first web page. There's more to come.

<hr>
<p>
I am learning how to use the horizontal rule, headline, paragraph and line break tags.
Writing HTML isn't as hard as it appears.
</p>

<p>Here's a list of items I like about school:<br>
Science<br>
Reading<br>
But most of all--recess!<br>
</p>
</body>
</html>
```

Step 3. Let's add one of the lists noted above. Enter the tags and text that appear in red.

```
<html>
<head>
<title>This is my first web page.</title>
</head>
<body>
<h1>Hello world.</h1> This is my first web page. There's more to come.
```

```
<hr>
<p>
I am learning how to use the horizontal rule, headline, paragraph and line break tags.
Writing HTML isn't as hard as it appears.
</p>
```

```
<p>Here's a list of items I like about school:<br>
Science<br>
Reading<br>
But most of all--recess!<br>
</p>
```

<p>I can also create lists using numbers and bullets. Here is an example of a list with numbers:

```
<ol>
<li>My first item on the list.</li>
<li>My second item on the list.</li>
<li>My third item on the list.</li>
<li>My fourth item on the list.</li>
</ol>
</p>
```

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

Step 4 Save your file.