
HTML -- INTRODUCTION AND LAYOUT

HTML is the language behind the Internet. The first and most important step while learning how to become a web designer is learning HTML. I'm not going to tell you that learning HTML is as easy as falling off a fence, but as far as computer languages go, HTML is a *super easy one*. Trust me on this. Or, don't. This is America. I'm into freedom. Do what you want.

Viewing the HTML for any Web Page

Want to check out some HTML? You can view the source code behind any web page. First, you'll have to be connected to the Internet using the Internet Explorer or Netscape. *(For the purposes of this book, we will assume you are using the Microsoft Internet Explorer. It's a little more friendly toward web designers. You can get the Internet Explorer and it's updates at www.microsoft.com/windows/ie/default.htm)*

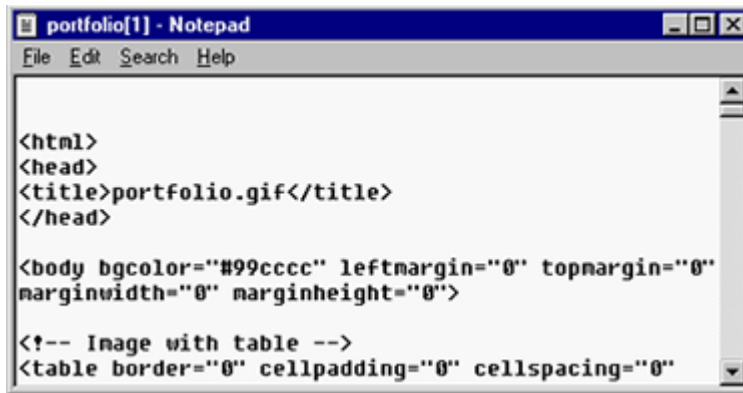
Go ahead and get yourself on the Internet. I'll wait.

To view HTML for any web page, click:

VIEW → SOURCE



This is HTML. Scroll through, take a look. It all looks like bunch of junk to you right now, doesn't it? When you are done with this section of the book, you are going to understand all this stuff.



```
<html>
<head>
<title>portfolio.gif</title>
</head>

<body bgcolor="#99cccc" leftmargin="0" topmargin="0"
marginwidth="0" marginheight="0">

<!-- Image with table -->
<table border="0" cellpadding="0" cellspacing="0"
```

Try this:

Can you highlight text just like you would in Microsoft Word? Can you copy and paste the text? It looks like you can... What does this mean? Can you just copy someone else's code and use it in your web page? Yup. You do have to be careful about breaking copyright laws, though. We'll talk about copyright laws later in this chapter, but right now it's really useful to know that you can look at the HTML behind any web page by clicking VIEW-> SOURCE. Viewing the code will help you figure out how someone made the cool page you're looking at.

HTML, what does it mean?

Let's start learning HTML and let's start at the beginning—the word itself.

Like many computer terms, HTML is an acronym – each letter stands for something. In HTML "HT" stands for "Hyper Text". It's text. It's hyper. It's shooting all over the Internet, back and forth really quickly--hypertext. The "ML" stands for "Mark-up Language". A markup language is a computer language that is pretty much written in plain English. For example, if you want the background color of your page to be red, the code that you use is BGCOLOR="RED". BG stands for "background". That's about as hard as it gets.

HTML Generators

HTML is pretty easy, but very important to learn. You may have heard that there are programs that create HTML code for you. Those programs are called HTML generators, the best known of which is Macromedia's Dreamweaver. Most web designers use HTML generators, but they still have to have a very good understanding of HTML.

Why, do I have to bother learning all this stuff if there's a program that will do it for me?

Good question.

Here's why: The HTML generators assume that you know HTML. Their buttons are labeled in HTML terms. The way they work will often make no sense to those un-versed in HTML. Even if you did figure out how to use the generator programs, the Internet grows faster than HTML generators do. Sometimes a generator won't or can't don't do everything you want it to do. You'll have no choice but to get into HTML and tinker with the code. If you don't understand HTML, you're going to have no clue how to approach complicated problems. You'll be stuck. Aside from all of this, a professional web designer is just plain expected to know HTML. You will work with clients, production managers, and other web designers, who will know HTML. They'll talk HTML to you and they'll use HTML terms. If you don't what they're talking about, they will consider your skills sub par.

How Does HTML Work?

HTML is not actually read by the computer. The browser – Internet Explorer or Netscape, reads it. This is why HTML works the same on a MAC or a PC, as well as on a UNIX based machine. A program can be set up to read code no matter what kind of computer it's running on. Pretty smart, huh?

HTML Tags

HTML works with little codes called tags.

An HTML code or "tag" is always kept in little brackets called carrots.

< > are carrots.

Check out your keyboard. The carrots are found on the same key as the comma and the period.

My if my name was an HTML tag, it would be kept in carrots, and would look like this:

<dave>

How tags work:

Remember that an HTML tag is a command telling the browser (Internet Explorer or Netscape) to do something. If something is in carrots, your computer will know that it's an instruction to do something, like make a word bold or set up a hyperlink. For example, if I want to make something bold I would use this tag:

The bold tag is . Pretty easy, huh? Most of HTML tags are just this easy. In fact, if you totally forgot what HTML tag you had to use to make something bold, and you just had to guess, it would be pretty easy to guess "".

Remember that if you've got something in carrots it's a command for the computer, and the command itself will never show up on the screen.

Your Computer Reads HTML Like You Read a Book

It is much easier to deal with HTML if you remember that HTML reads just like you do, from left to right and from top to bottom. If your computer is coming along and it reads this:

```
<b> Some cool words
```

It thinks: "Hmm... Bold tag... Okay, I'm going to make everything after this "" tag bold, so I'll put 'Some cool words' on the screen and make them bold"

Closing a Tag

In the above example, the computer reads the bold tag, and says "Okay, everything after this is bold".

Unless you want to have the whole page in bold, you'll need a way turn the bold tag off. Luckily, you can turn off a tag, and it's really easy.

Using the same exact tag with a slash in front of it turns off almost every single tag.

For example, to turn off you use: .

Hard? ...No, Easy. Bold goes on, bold goes off.

A tag with a slash in front of it is called a **closing tag**.

So...

```
<b> Some cool words. </b> Some other not so cool words.
```

Your computer will read the above HTML statement like this:

1. Look! A bold tag! Everything after this tag is bold, so I'm going to put "Some cool words" on the screen and made them bold.
2. Oh! A closing bold tag! Everything after this is not bold, so I'll put "Some other not so cool words" on the screen and I'll make sure that they're not bold.

That's how HTML works. If words are in carrots it's a "tag". A tag is a code instructing the computer to do something. Remember that tags never show up on the screen. Conversely, if a word is not in carrots, it will show up on the screen and will be affected by whatever tags you elect to use.

Are Tags Case Sensitive?

You may have noticed that I've been using lowercase letters for my tags. You don't have to. Tags are almost never case sensitive. You can type `` or `` and it'll do exactly the same thing. People sometimes use capitals just so they can easily tell the difference between what is a tag and what isn't.

However, XHTML is a language that may replace HTML in a few years. In most respects, XHTML is the same as HTML, but there are a few new rules. For example, in XHTML all the tags must be in *lowercase*. Some web designers are training themselves to write code in lowercase to prepare for the XHTML switchover if it ever comes.

What program do I need to write HTML?

You don't need any super expensive fancy program to make HTML. Anything that you can type with will do. Anything. Microsoft Word, an E-mail program, whatever. For this book, we're going to use the junkiest of all junky word processors – the one that comes with your computer. On the PC we are going to use a program called "Notepad". The Mac has a similar program called Simple Text.

What about these HTML editors I've heard about?

Just so you know, there are programs that will help you hand code HTML. They're called HTML editors. The most popular of HTML editors is called "BB Edit". Basically, HTML editors have a bunch of tags in pull down menus for you to use. They also work like spell checkers. If an HTML editor sees something that it doesn't understand, it'll highlight the incorrect tag for you. HTML Editors also automatically add closing tags when you type an opening tag. Don't run right out and get one, though. It's not always such good idea to use an HTML editor when you are starting out. You need to learn how to write and check the coding yourself without a helper.

Organizing Your Code While You Type

How should you organize your HTML code as you type? Any way you want to, that's how.

HTML does not care if you every hit "Enter". You could write all of your code in one great big long line if you really felt like it. It's not such a good idea, though. Later when you come back and try to figure out where you messed up, it's not going to be all that easy if everything is all bunched up together.

To make things easy on yourself, hit enter a couple of times after you type a tag. Things will look nicer and your whole HTML life will be easier. It doesn't really matter how you type your HTML, as long as you can come back and read it later. Examine other web pages for examples of different organization styles.

The Root Folder – Where Everything's Kept

When you build a web site, you'll store the entire site in one main folder. The main folder can contain other folders for organization, but as long as everything is kept under the umbrella of the big main folder you're okay.

This main folder is called the "Root Folder". Later, you'll upload everything in the root folder to the web. You can keep the root folder anywhere on your computer just make sure you can easily find it later. For the upcoming exercises we'll keep the root folder on the Desktop.

1. To start, **create a folder on your desktop and call it a "website"**.
 - a. To create a new folder right-click the desktop (pc), or Ctrl-click the desktop (mac)

Creating the Basic HTML Structure

Every HTML page follows the same basic structure. Let's learn that structure now.

You'll need a word processor to type HTML, for the PC, we'll use Notepad, on the Mac, we'll use Simple Text.

To Open Notepad: (PC)

Start → Programs → Accessories → Notepad

To Open Simple Text: (Mac)

Hard Drive → Applications → Simple Text

You should have a blank page staring up at you. We need to insert a tag right away that lets the computer understand that the code it's reading is HTML.

If you just *had* to guess what the tag is for HTML, what would you guess? How about:

<html>

That's it. The code that you use to let the computer start reading HTML is <html>. It doesn't get too much harder than this, folks.

The Head

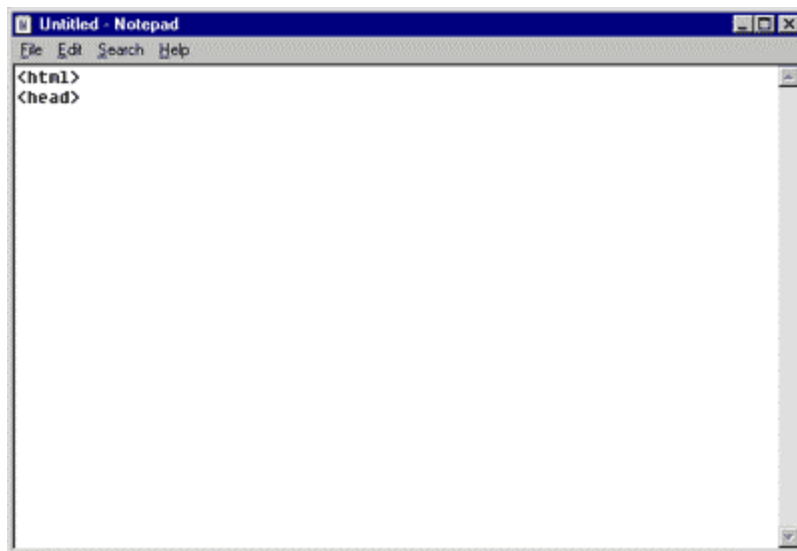
Every web page is made up of two main parts, just like you have two main parts. You've got your head, where a bunch of information about who you are and how you work is kept. The information in your head is not necessarily exposed to the world, but it's still pretty important information. HTML also has an area called the head. None of the information in the HTML head is actually visible in the main page, but a lot of it is very important. The head holds essential information like the title of the website and special information for search engines. Cool things that you'll learn about later, like Java Script and Meta tags, also go in the head.

The tag for the head is:

<head>

1. Go Ahead and type <html> on the screen.
2. Hit ENTER
3. Add <head> to your web site.

Your code should look like this:

A screenshot of a Notepad window titled "Untitled - Notepad". The window has a menu bar with "File", "Edit", "Search", and "Help". The text area contains the following HTML code:

```
<html>
<head>
```

So far, we have told the computer that everything is in HTML code, and we've started a head.

The Title

Now we're going to put things in the head. This is much easier than putting things in your own head; it only requires typing. The first thing that we're going to put in the head is the title of our Web Page. This is

not the title that will appear on the screen, but it will be used for, among other things, search engines trying to find our page. The tag for title is...

<title>

Tough stuff, huh? We're going to call this page: "Our first web page".

1. Hit enter a few times and type:
`<title> Our First Web Page </title>`

Don't forget the closing tag.

Closing tags are very important. If you forget to close the title, your browser will assume that everything following the `<title>` tag is part of the title. Be careful. Beginners often get so excited that they forget to close tags, and it buys them a whole bucket full of trouble.

Closing the Head

This is all we're going to do with the head right now, so let's close the head.

2. Hit enter and type:
`</head>`

So far our code should look like:

```
<html>
```

```
<head>
```

```
<title> Our First Web Page </title>
```

```
</head>
```

The Body

Web sites aren't just a bunch of disembodied heads floating around trying to scare everyone. HTML has a head where it keeps information about itself, but just like you, HTML also has a body that it shows off to the world. None of the `<head>` information shows up on the screen. The "body" of the website contains everything that viewers will ever see.

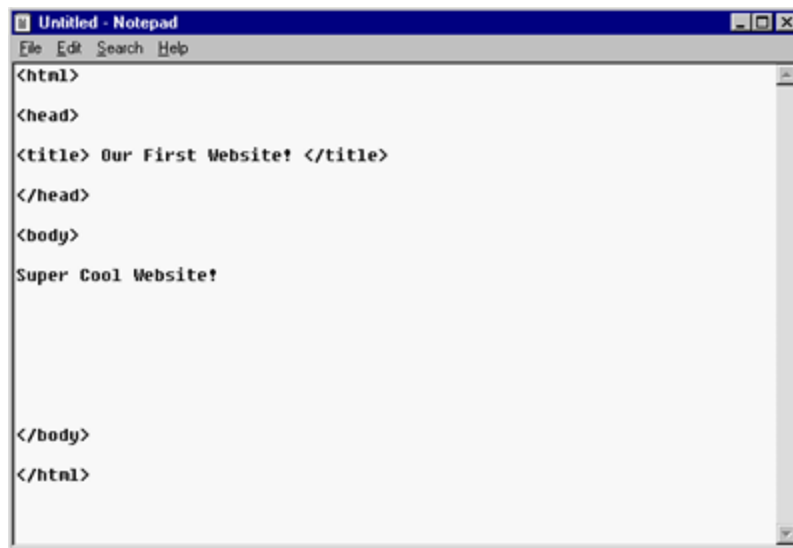
<body>

*****IMPORTANT:** Everything in the body is going to show up in the Web Site.

3. Type:
<body>
4. Type:
Super Cool Web Site
5. Hit Enter a couple of times and close the <body>
</body>

Remember that the <body> holds all of the visible elements of the web page.

6. Close the <html> tag
</html>



```
Untitled - Notepad
File Edit Search Help
<html>
<head>
<title> Our First Website! </title>
</head>
<body>
Super Cool Website!

</body>
</html>
```

Congratulations! You just made your first web page! You're a web designer. Go get a job.

Just kidding.

You have built the basic HTML structure, though...

As a reference, the basic HTML structure will always be:

<html>

<head>

<title> </title>

</head>

```
<body>
```

```
</body>
```

```
</html>
```

Saving Your Code

I know that you probably already know how to save a file, but you have to go through some special steps here, so pay attention, Okay?

File Extensions

Every file on your computer has a file extension immediately following its name. To help the computer keep everything straight, every program has its own unique file extension. The file extension is a code that tells your computer what program should be used. The extension follows the file name, and is almost always a dot (.) followed by three letters. For example, the three-letter extension for a Microsoft Word document looks like this:

.doc

If I saved something, and called it "Letter" in Microsoft Word, the file's actual name would look like this:

Letter.doc

The ".doc" lets the computer know to use Microsoft Word to open the file.

On a Mac the file extensions are usually not visible, but they still exist.

The file extension for HTML Web Pages is:

.htm

When Saving, You Have to Add the ".htm" Yourself

When you save a file with programs like Simple Text and Notepad, the program will automatically add their own unique three-letter file extension. That extension isn't ".htm"

If you want a different extension, you'll have to add it yourself. Programs specifically made for writing HTML, like Dreamweaver or BB Edit, automatically add ".htm", but most of the time you'll have to add it yourself when saving. Just type it on when you name the file.

File Extensions on a Mac, and Staying Consistent

PC file extensions are usually three letters long. Macs, on the other hand, can have file extensions longer or shorter than three letters.

The Internet has to be flexible enough to accommodate the difference between Macs and PC's, so you can actually use either the ".htm" or ".html" as a file extension for your web pages.

If you add on ".html" as your file extension when you save, your web page is going to work just fine. But why type an extra letter? Save the finger effort. You don't want to get carpal tunnel syndrome, do you?

Either way, consistency when naming files is really important. If you call your web page "Dave.htm", and later you try to link to "Dave.html", your link isn't going to work. If you get in the habit of always using the same file extension, you will be a very happy web programmer, indeed.

Mmmmm, happy.

Okay, so we were just about to save this little web page, right?

Yes, we were.

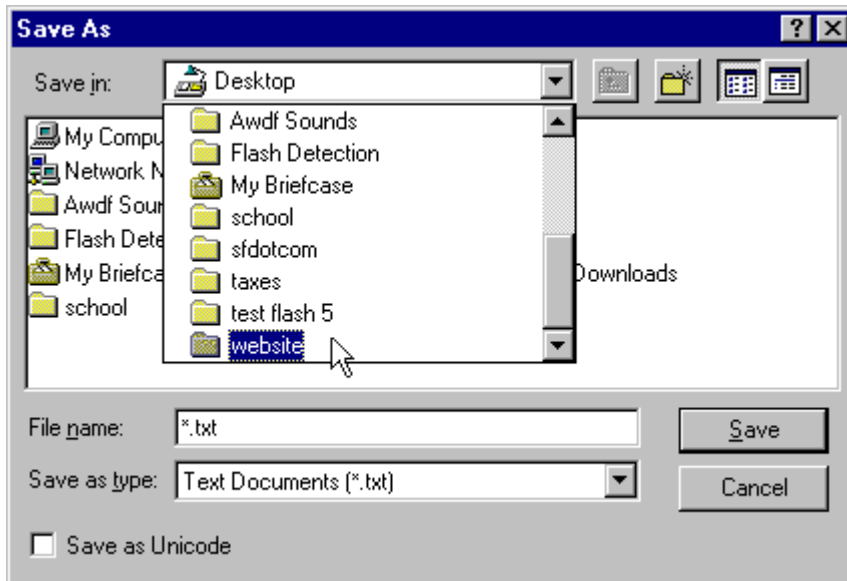
Remember that because we're working in a standard word processor, you can't just save the HTML file like you would save any other file. If you just clicked "save", the program (Simple Text or Notepad) would add it's very own three-letter file extension. Sadly, the file extension for Notepad or Simple Text isn't ".htm".

We have to add the ".htm" ourselves.

To Save an HTML Document

1. Click "File" → "Save"
2. Navigate to the Root Folder

Remember, we need to save this page, and every page in our website, in one main folder. We made the main root folder a while ago, and called it "website". It's on the Desktop.



3. Name the file: **firstpage.htm**

Don't forget to add the three-letter file extension. If you forget, the word processor that you're working in will add its own unique extension. I find that a common beginner's mistake is that they often forget to add ".htm" when they save. If you forget, your web page won't work!

Okay, you've made and saved a web page! Feel cool?

Rules About Naming Web Pages (Naming Conventions)

Here's the big rule:

Whenever you save a web page, only use lower case letters and never use spaces!

Go read that rule again. It's an important one.

Let's say you forget about the "all lowercase, no spaces" rule. You don't listen to your good old web design book. You use *loads* of spaces and uppercase letters, just because you feel like it, and everything seems to be working just fine. Well, the thing is that everything will work just fine, on your computer... But some servers, especially UNIX based servers, get really uppity if you use capital letters and spaces. Everything might work just fine right now, but when you put your beautiful page up on the web, nothing works and you don't know why, and you're crying, and you get fired from your cushy web design job, and your girlfriend/boyfriend breaks up with you, and your white clothes come out of the washer all pink.

Rule #1 – *Never* use spaces or capital letters when you save a web page.

Viewing the Pages You've Made

Remember that it's not your computer reading HTML, but your browser. The two major browsers are Internet Explorer and Netscape Navigator, and you really need them both, because sadly, they read HTML in slightly different ways. Because they read HTML differently, sometimes browsers display the same page differently.

Ugh.

Either way, you need to look at your web page in both Internet Explorer and Netscape. Make sure it looks just like you want. You may have to do a little bit of tweaking. Don't worry about all of the differences between Netscape and Internet Explorer right now. Later I'll show you easy ways to figure out exactly what's going to happen in the different browsers.

You can get the Internet Explorer and it's updates at:

<http://www.microsoft.com/windows/ie/>

You can get Netscape and it's updates at:

<http://www.netscape.com/computing/download/>

America Online

To complicate matters, America Online has it's own browser. The America Online browser is famous among web designers for displaying pages incorrectly. You may want to subscribe to America Online just so you can see your website in the same manner as the umpteen-million AOL users.

Using the Internet Explorer to View your Web Pages as You Build Them

For the purposes of this book we are going to use the Internet Explorer to view our web pages. It's a little bit friendlier towards web designers. If you're regular Netscape user, don't worry. You're not going to have any trouble, but right now it's best that we keep everyone on the same page.

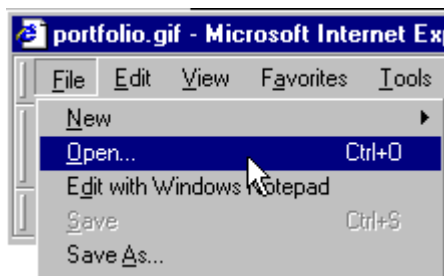
To View the Page You've Made:

Our Web Site is not on the Internet yet, so typing "http://www.PleaseBringUpMyNewWebSite.com" is not going to help us very much. Luckily, you can test your web page by opening it directly from your computer's hard drive. You'll use a browser and open the page just like you would open any other file on your computer.

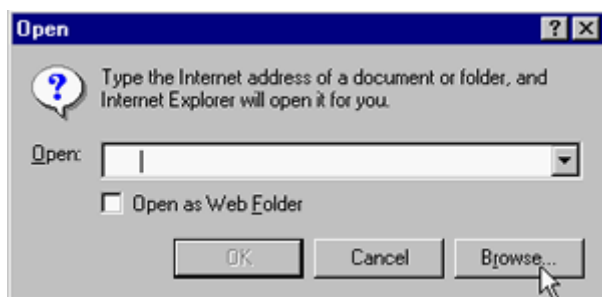
Don't close your HTML. You'll want it for later.

In the Internet Explorer:

1. Click "File" → "Open"

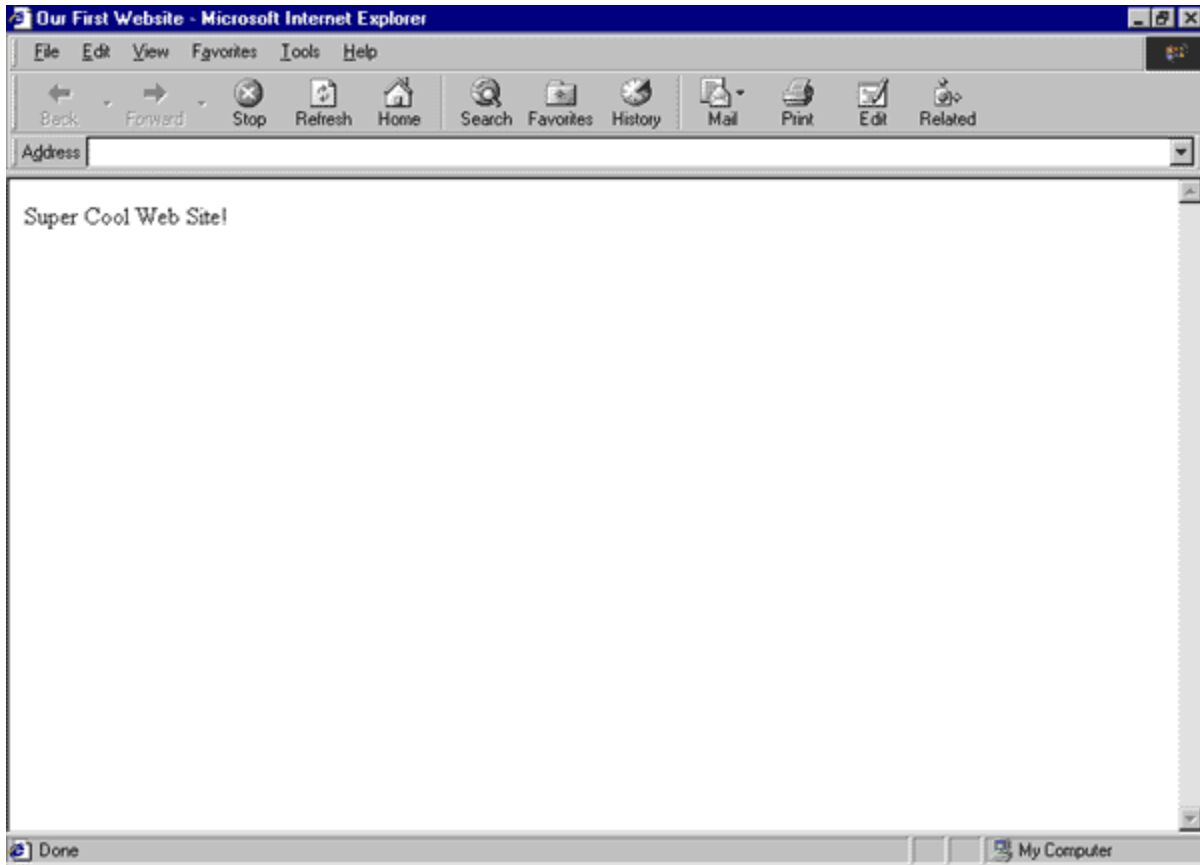


2. Click "Browse"



3. Navigate to the "website" folder on your desktop and select "firstpage.htm".
4. Click "Open"
5. Click "OK"

Whoop, Hoo! Here is your Web Site! It should look like this:



Isn't it beautiful?

By default, things show up justified to the top left.

You notice that "Super Cool Web Site" is in the top left corner. Later we'll learn ways to move text and images to any location on the screen.

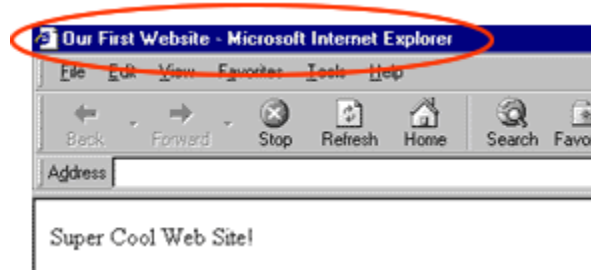
The Title

We typed "Super Cool Web Site" in the body of our HTML. Remember that we also added a <title> while we were in the head? The title was:

```
<title>Our First Web Page</title>.
```

It may not be obvious at first, but the title can be found while viewing the web page. Can you find the title on the screen?

The title is kept in what is officially called the "Title Bar", in the upper left hand corner of the screen.



Notice that the title does not show up in the web page at all, it only shows up on the title bar.

The Title Also Shows Up in the Favorites/Bookmarks

1. Click the **Favorites** pull-down menu, ("Bookmarks" in Netscape)
2. Click **Add to Favorites**.

What shows up? "Our first Web Site!"

3. Don't add it to your favorites right now.
Hit "Cancel".

So, the title appears at the top of the screen, and in the Favorites (or Bookmarks). Lucky PC users also get to see the title on the task bar (by the start button).

You should also know that the title is one of the main things that search engines look for when trying to find a page. We'll get more into search engines later, but if you have a page about music, you probably want to title your Web Site "Fabulous Music page", or "Great Music page", or at least something about music—not "Dave's Double Happy Yum Yum Page". A web page will work if you do not insert a title, but then again, who wants a working web page that no one can find?

So is the title important? Yes, it is.

Editing and Viewing Code "On the Fly"

You can switch back and forth between the HTML and your browser. That way you can view the updates as you make them.

The browser doesn't automatically update your web page just because you changed the code, though. You have to tell it to go back and reload the page from the hard drive. If changes have been saved, they'll display!

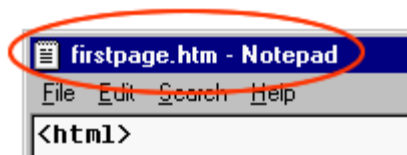
First, we'll change something in the HTML code:

1. Don't close the Internet Explorer. Go back to your HTML code.

You'll be going back and forth a whole lot from now on...

As a shortcut, you can use **Alt + Tab** on your keyboard to switch between open programs.

Make sure that you are looking at the HTML for "firstpage.htm". We're going to make some changes and view them in the Internet Explorer.



2. Click right after where you typed "Super Cool Web Site"
3. Hit ENTER
4. Type:
"By a super cool web designer"

5. Click **File**, click **Save**.

Note that you don't have to add ".htm" this time. The new HTML file saves over the old HTML file. The computer assumes that you still want the ".htm" unless you tell it differently.

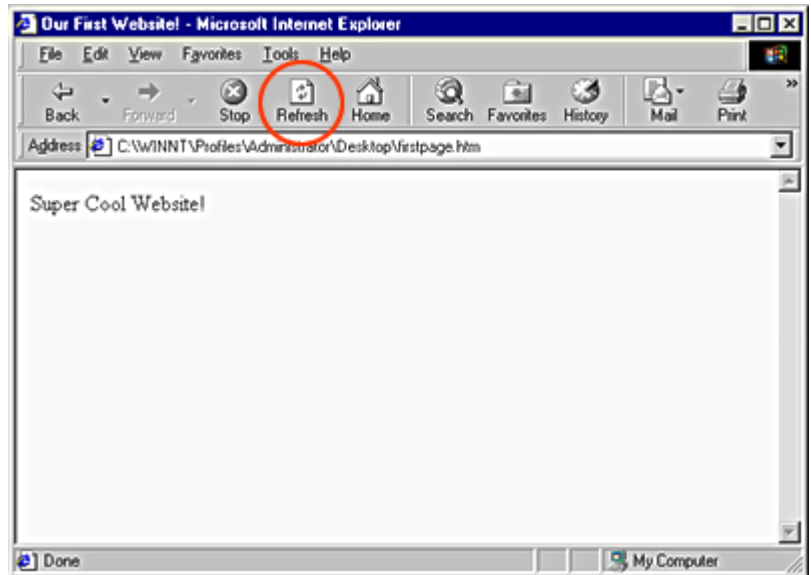
6. Now return to the Internet Explorer

Refreshing the Browser

The Internet Explorer is looking at an old version of our web page. We need the Internet Explorer to read the updated HTML we just saved to the hard drive. To update the page, all you have to do is hit the big **“Refresh”** button in the Browser window. Hitting **“Refresh”** tells the Browser to reload whatever page it’s looking at.

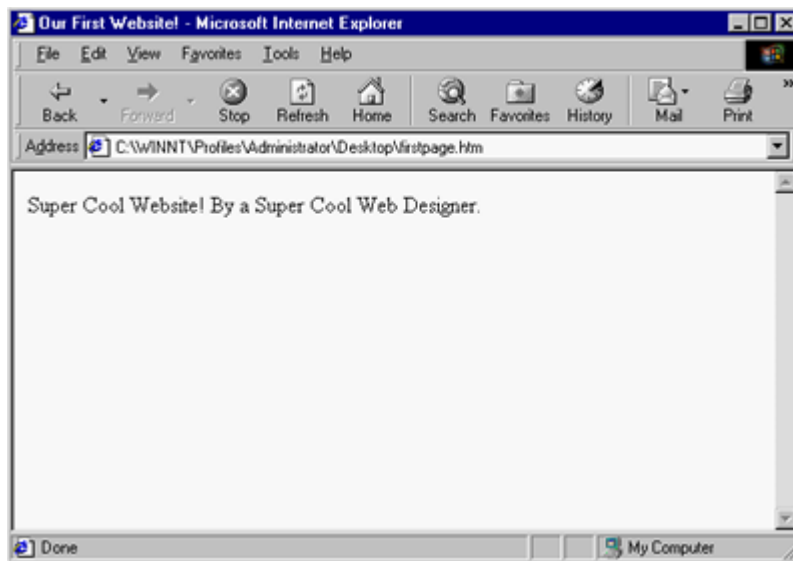
Go ahead, hit **“Refresh”**.

So, you can update the look of your web page by changing the HTML and then clicking **“Refresh”** in the browser!



The Break Tag

After we hit **“Refresh”** you’ll notice that **“By a super cool web designer”** appears next to your first name. When we wrote the HTML code, we hit enter after **“Super Cool Web Site”** and put **“By a super cool web designer”** on the next line! What’s Going on?



Remember that while you’re typing HTML you don’t have to ever hit **“Enter”**. Actually, you can type all of your HTML in one big long string if you want to. It would work exactly the same as it would if you organized the code in a neat efficient style. People space out their tags for neatness and organization. If

you want the text to go down a line, you need to use a tag. It's a very easy tag, called the "break" tag (as in line-break). It looks like:

**
**

The break tag doesn't need a closing tag. One
 means go down one line.

The Paragraph Tag

Web designers also use a "paragraph" tag. This tag works pretty much like the
 tag, except that it's only really supposed to be used for paragraphs of text. The paragraph tag makes sure that there's a space before and after a paragraph. The Paragraph tag looks like this:

<p> paragraph goes here **</p>**

Take some time to experiment with the
 and <p> tag. Remember that you need to close your </p>, but not your
. When you're done:

1. Click **File**, Click **Save**
2. Click back into the Internet Explorer
3. Click **Refresh**

The Center Tag

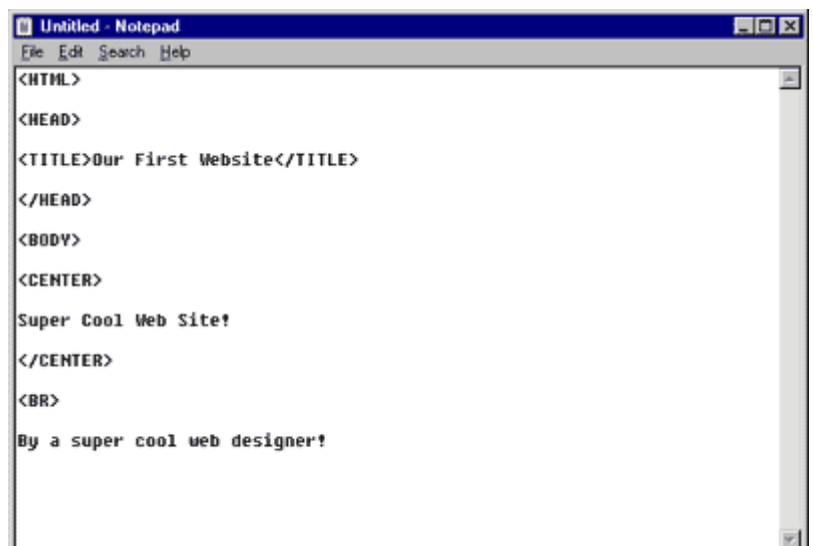
So far we've got a web page, but you've got to admit it's a pretty boring... Everything is over on the left hand side. Everything is black and white. We're not winning any design awards, here. Blech.

Taoist philosophy states that harmony is achieved through centering things and bringing balance to life. Well then, let's learn how to center things on our web page.

Surprisingly enough, the tag used to center things is:

<center>

1. In your HTML, click right before "Super Cool Web Page"
2. Hit enter a couple of times for more space.
3. Type the **<center>** tag
4. Click after "Super Cool Web Page" and type the **</center>** tag



```
Untitled - Notepad
File Edit Search Help
<HTML>
<HEAD>
<TITLE>Our First Website</TITLE>
</HEAD>
<BODY>
<CENTER>
Super Cool Web Site!
</CENTER>
<BR>
By a super cool web designer!
```

If you don't close the tag, everything from here on will be centered!

5. Click **File** → Click **Save**
 6. Click your way back to the Internet Explorer, and hit **Refresh**
-

**From this point on, the whole little operation of going to "File", clicking "Save", going back to Internet Explorer, and hitting "Refresh" will be referred as "file/save/refresh".

Remember, if ever get lost or accidentally close the Internet Explorer, you can always open any web page you have saved on your computer by utilizing the following steps:

1. Open the Internet Explorer
2. Click the FILE menu in your browser
3. Click OPEN
4. Click BROWSE
5. Find the web page in your computer.

Often, beginners usually get so used to clicking "Refresh" that they forget that it is necessary to use the above steps the first time they open a web page. Remember that the "Refresh" button simply reloads the page that you are looking at right now. For example, if you're working on one HTML page, but looking at a different one in you browser, when you hit "Refresh" your browser reload the page you are currently *looking at* and not the page you're currently working on.

Checking Your Work

As a beginning web designer, it is a really good idea to check your work often. HTML gets really uppity if you type something wrong. If you used an apostrophe when you should have used a quotation mark, your page won't display correctly. If you used a comma instead of a period, your page won't work. If you typed `<cener>` instead of `<center>`, your page won't work.

Don't get discouraged if you often make errors. It's totally normal.

Basic Structure and Tag Review

So far we have the basic outline of an HTML page: the <HTML> tag, the <HEAD> tag, and the <BODY> tag. We also know about the <TITLE> tag, which is important if we want search engines to find our page. We know how to center text and make it go down a line.

Doing pretty good, huh?

The basic structure of all HTML pages is:

```
<html>  
<head>  
<title> Title Here </title>  
</head>  
<body>  
  
</body>  
</html>
```

TEXT FORMATTING IN HTML

OKAY, so you've built your own web page!

If everything turned out perfectly and you're sitting there with a goofy smile saying "Yeah! I rule.", Congratulations, you are one of the few perfect people in the world. If everything didn't go super smoothly for you, don't worry about it. When you first start, HTML is easy to mess up. Luckily for you, the rules are pretty basic, and once you get them under your belt you'll do just fine.

So far we can put text on the screen, we can center it, and make it go down a line, but that's about it. We haven't figured out how to change the way our words look. Now we're going to learn some new tags to make our web page look pretty.

Changing Text Appearance With Headings

There are two main ways you can change font size in HTML, the first one involves what are called "headings". Headings model themselves after the print publishing practice of establishing standardized type styles. For example, the headline of a newspaper is always a certain size, and the author's name is always another set size. By having these exact style sets, you follow the rules and no one has to worry too much about what should be what size and what should be another size. Your newspaper has continuity and appears professional. HTML gives you the ability to use set heading sizes much like newspapers do.

Your heading sizes range from 1 to 7—Heading 1 being the strongest, and Heading 7 the weakest. The tag for Heading 1 is simply:

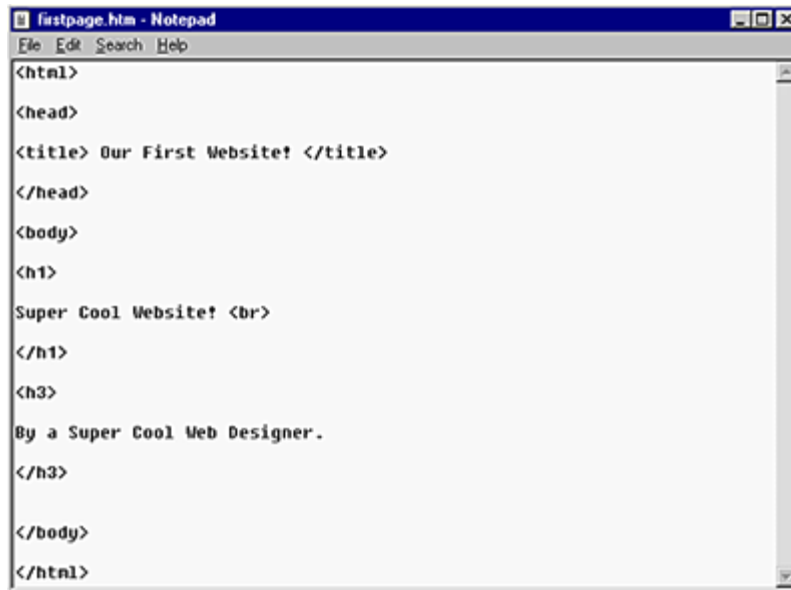
<h1>

Headings require closing tags. The closing tag for <H1> is:

</h1>

1. Build a basic HTML page and put some text in the body. Experiment with the different heading sizes, 1-7

Remember, that it is important to close the heading tags.

A screenshot of a Notepad window titled "firstpage.htm - Notepad". The window contains the following HTML code:

```
<html>
<head>
<title> Our First Website! </title>
</head>
<body>
<h1>
Super Cool Website! <br>
</h1>
<h3>
By a Super Cool Web Designer.
</h3>
</body>
</html>
```

Notice that when you use different headings and view your page in the Internet Explorer, more than one characteristic of the font changes. Words get bigger or smaller, but sometimes other characteristics like boldness and italic also change.

Changing Text Appearance With the Tag

Headings aren't the only way to change fonts in HTML. Actually, most font changes utilize the tag. tags and heading tags have some of the same functions and can't be used together.

You might imagine that there are a lot of different changeable characteristics about a font. You can change its size, its color, or the font typeset itself. It would probably be inconvenient if you had to use a different tag for every tiny change made to a font, so the happy makers of HTML have provided a nice solution for you. They have provided us with the tag.

Font tags are a little bit different than other tags we've been using with so far, in that they have modifiers. A modifier is an addition to the standard tag that allows you to make small changes. This is how it works:

The font tag starts just like you think it would:

If you wanted to change the size of the font, the tag would look like this:

size="1" is the modifier of the Font tag. It is an optional extra detail about the font. Many tags have modifiers.

Take note that `` isn't referred to as the "Font Size" tag. `` is still just the "Font" tag. Size is a modifier of the Font tag. There are other modifiers that we'll learn in a little bit. No matter how many you add, the tag will remain the font tag, and "font" must always come first in the tag. After "font", it doesn't matter what order the modifiers come in.

<code></code> Right	<code><size="1" font></code> Wrong
---	---

What font sizes are available?

Fonts range in size from "1" to "7". The largest font size is "7". The smallest is "1". The default font size is 3. You can also set font sizes to be positive or negative numbers. For example, a font size of +4 would equal font size 7. (default size=3) + 4 = 7

Closing a Tag With Modifiers

To close the font tag you *don't* have to write: ``. Instead, you only have to write:

``

In fact if you do write `` it won't work. No matter how many modifiers a tag has, you only have to close the tag using a slash and the first word in the tag. Later we will learn other tag's modifiers, they all work exactly the same way. You close the tag with

`</TheFirstWord>`

1. Experiment with different font sizes in your HTML.
Example ` Dang, I love the Internet! `
2. Remember to Click → File/Save/Refresh to view your work in the Internet Explorer

Rules About Tags with Modifiers

Tags with modifiers have spaces and quotes! How are you supposed to remember when to insert a space, and what goes in quotes?

Notice in `` there is a space between FONT and SIZE. You might easily write `<fontsize="1">`, but if you did, the tag wouldn't work. How are you supposed to remember when to insert a space? Here's the rule:

In HTML, one command is one word.

In ``, "font" is a command that says, "this is a font tag".

After font, there is a space and a modifier, `size="1"`.

"size" is a whole different command. It says, "Make something this size or that size."

So, the rule being that each command in a tag gets it's own word, "font" and "size" are separated by a space.

You may have also noticed that "1" appeared in quotes. How are you supposed to know what goes in quotes? Easy:

Everything after an equal sign goes in quotes.

Example: THIS="THAT"

These basic rules will help you to craft your HTML tags. Just remember that In HTML, one command is one word, and that everything after an equal sign goes in quotes. You'll do just fine.

Changing Text Color

Size is not the only modifier that can be applied to a font tag.

The modifier for font color is:

COLOR

For example, if I wanted my font color to be red and my font size to be 4, I would type:

```
<font color="red" size="4">
```

It's that easy?

Yes, one of the ways to get color is to just type out the color. HTML knows a lot of colors. As long as the color is one word, everything will be great. "Blue" will work fine. "dark blue" won't work so well.

Again, it doesn't matter what order the modifiers come in as long as "font" comes first and there is a space in between modifiers.

Go ahead and try it.

1. Change the fonts in your HTML so that they have different colors and sizes. Experiment with different colors, it knows some you might not think of like gold, silver or teal.
2. File/Save/Refresh

So far, we know two modifiers for the font tag – SIZE and COLOR. We're about to learn how to change the actual font itself. First we'll have to learn a little bit about how your computer applies different looks to typefaces.

So, how do fonts work in my computer?

To correctly understand fonts on the Internet, you have to understand how fonts work in your computer. The fonts on your screen are not actually little pictures per say. The computer does not draw each one of them individually. The computer says "put this text on the screen and apply this *font map* to it". A font map is a basic drawing in the computer, telling it how to make each letter look.

To see your font maps:

On a PC:

Start → Settings → Control Panel → Fonts Folder

On a Mac

Hard Drive → System Folder → Font folder

In the fonts folder you'll see all your fonts. Double-click any one and you'll see the font in all different sizes. Kind of cool, huh? Different computers have different fonts installed in them. You could have a thousand fonts on your computer. Sadly though, these font maps do not download with the web page.

How does a viewer's computer display fonts?

If a web page calls for a font map, the user's computer goes into its own Font Folder and tries to find the font map called for. If the computer can't find the font map asked for, it just picks any other one that it feels like, and you end up with a very ugly website. What that means to you, is that you can not just use any old font you feel like when programming for the Internet, you have to use font families which are kept in every computer, so your web page will look the same on everybody's screen.

So, what Fonts can I use?

You can choose from:

1. Ariel (pc) or Helvetica (mac)
2. Times New Roman, which is the standard font used in programs like Microsoft Word
3. Courier, which looks like old typewriter type
4. Georgia, which looks like Times New Roman, but was designed for the computer screen
5. Verdana, which looks like Ariel, but was designed for the computer screen

Verdana and Georgia were made to be displayed on computer screen and therefore often look better when viewed on the Internet.

Serif vs. San-Serif

Georgia and Times New Roman are called serif fonts, this is the letter "T" in serif font: "T". A serif font has fancy squiggles and overhangs. They were invented for the Guttenberg Press to drive your eye to the next letter.

"Sans" means "not", so sans-serif fonts do not have little squiggles. Studies have shown that sans-serif fonts read faster and have higher level of comprehension. They are also easier to read on the computer screen, which doesn't have the high resolution of print. Right now, the san-serif font families are also much more in style. Verdana and Arial are sans-serif fonts.

Changing a Font

Let's change the font displayed on the screen. The modifier used to change the font face is:

face="fontname"

If I wanted a small, blue, san-serif font I might type:

***You can choose between Arial, Verdana, Helvetica, Times, Georgia, or Courier

1. Experiment with changing fonts faces.
Remember to close a FONT tag you only use
2. Write a word, center it, and make it go down a line.
3. Change the font size, font color, and font face.

Quick! Here's Three Easy Tags:

Bold:

** and **

Underline:

<u> and </u>

Italic:

<i> and </i>

1. Take a minute to experiment with your new font changing skills.

If you think about it, you've learned a lot so far. You can make a web page. You know the basic outline of a web page, starting with <head> using the <title>, and following with <body>. You can change the way words look. You can change their position on the page using <center>, <p>, and
. You can change their appearance using the heading tags <H1> and the font tag with all of it's Modifiers

This isn't the prettiest website yet, but we sure are getting there!

HYPERLINKS

The Web gets its name from its resemblance to a spider web. One page is linked to another by an imaginary line, and that page is linked to another, and so on. All of these links cross and re-cross, forming a web. You're about to learn the ins and outs of linking web pages together.

Understanding File Paths

Your web page is going to be kept on a computer called a server. A server is pretty much like your computer; it stores information in exactly the same way. Everything in any computer is kept in a folder, so web pages on a server are kept in a folder too. Your web site is stored in one main folder called the *root folder*. Sometimes there are folders in that root folder, but every element is kept under the umbrella of the root folder. When you type in <http://www.awdsf.com> you are giving the Internet enough information to find the root folder and the home page.

A hyperlink is basically an instruction to your computer, telling it to find and open a file. You're going to have to direct the computer, in computer language, from the page a viewer is looking at to the page they wish to see. You have to give the computer a map from one page to the next. This map, or path, is called a *"file path"*. The file path is simply the path a computer must follow to find a particular file.

Writing File Paths

If you were giving me directions from one folder to the next you might say:

Go to folderA, then go to FolderB, then open webpage.htm.

To give the same directions to a computer as a file path, you would say:

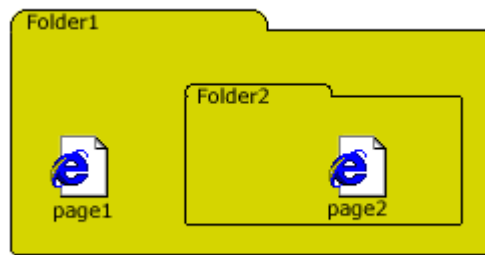
folderA/folderB/webpage.htm

"/" (slash) basically means "then go to".

When giving directions to a computer, the first thing you name in the file path is the first step in the computer's path. Don't write the name of the folder the starting point is in. You wouldn't give someone directions by saying "Start where you are..." would you?

The last thing in the file path should be the name of the file you want the computer to open.

**In the below image, how would you write the file path hyperlinking from page1.htm to page2.htm?
(try to figure it out, the answer is below)**



The correct file path would be:

folder2/page2.htm

Remember, you don't write the name of the folder or the file the starting point is in.

Internet Addresses are all File Paths

So, a file path like:

"http://www.awdsf.com/courseware/internet_education_files/workings_of_the_web.htm"

Gets you to the root folder for awdsf, then goes to a folder called "courseware" then to a folder called "internet_education_files", then to a web page called "workings_of_the_web.htm"

Sometimes an Internet Address Doesn't End in .htm. What's going on?

You may have seen addresses like www.cnn.com/sports

Some addresses don't end in .htm. How does that work? Well, the nice people who made up HTML decided that it would be cool if you could just direct a computer using the Internet to a certain folder and it would automatically open the main HTML page. To make this work, there has to be a standardized name for the main file. If you don't tell the computer which HTML file to open, it would automatically open a pre-determined main file in that folder, called:

index.htm

You can save a file "index.htm" in a particular folder and direct a file path to the folder. The Internet will automatically open "index.htm"!

How nice for you.

You can name as many files "index.htm" as you want, as long as they're in different folders. Shorter addresses are easier to remember, use this to your advantage.

Rules About Saving Your Homepage

Always Call Your Homepage "index.htm", and Always Store it in Your Root (main) Folder

Your URL (www.yourpage.com) only directs a user to your root folder. If you don't name your homepage "index.htm", your viewers will be treated to the dreaded "Page Not Found". Likewise, they'll see the same evil message if your homepage is not saved directly in your root folder.

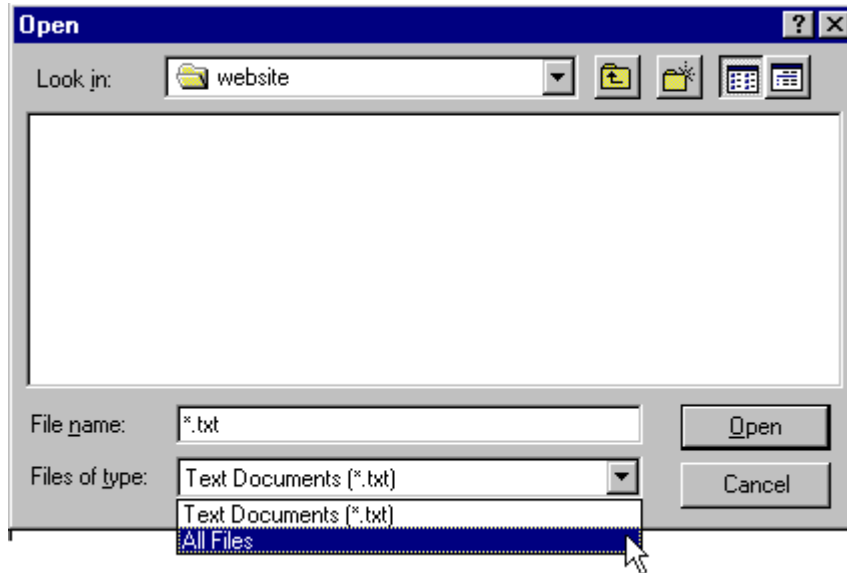
Your Home page cannot be kept in any other folder than your root folder. It must reside on the top level of your web site.

In rare cases, a hosting service may want you to call your homepage "default.htm", but they'll usually make a big deal about it, so you don't really have to worry.

Okay, so what's the Hyperlink tag?

Not so fast... First we have to have some pages to link between. Follow the below steps to create a new page:

1. Open Notepad or SimpleText
2. We're going to make a new page. If you're still looking at HTML from "firstpage.htm", click FILE-> NEW (make sure you save firstpage.htm)
3. Type:
<HTML>
<HEAD>
<TITLE> Second Page! </TITLE>
</HEAD>
<BODY>
<CENTER> This is the Second Page! </CENTER>
</BODY>
</HTML>
4. Save this page in the "website" folder on the desktop.
Call it "secondpage.htm"
(Write it exactly like that, no spaces, all lowercase. Don't forget to add the ".htm")
5. Check the new page in the Internet Explorer to make sure it works.
(Remember, in the Internet Explorer, you'll have to go to FILE-> OPEN-> BROWSE)
6. Hit the "BACK" button in the browser, so you're looking at the firstpage.htm again.
7. In Notepad or Simple Text, open "firstpage.htm"
If you can't find firstpage.htm You may have to instruct the program to look for all files (see picture)



Okay, now you're ready to learn the Hyperlink Tag!

The hyperlink tag references another web page or file. For that reason, it is called the "Hyperlink Reference Tag". Hyperlink Reference is conveniently abbreviated:

href (pronounced "H-REF")

The Hyperlink tag is always preceded by an "A", called an anchor. The tag looks like this:

So, the HREF tag needs a closing tag. Notice that the closing tag is only ""

Okay, here comes an important point (appropriately in italics):

Anything in-between the opening and closing Hyperlink tag becomes click-able!

So, if you wrote:

Please click here

You would get:

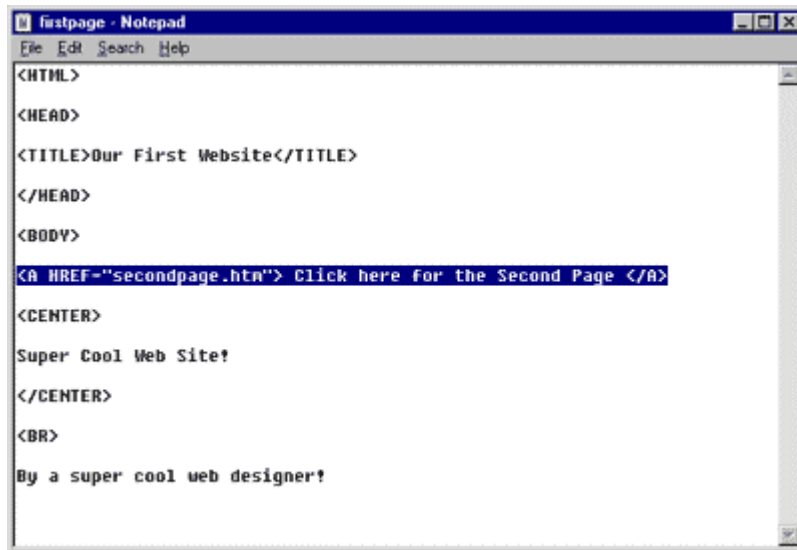
[Please Click Here](#)

“Please click here” would become blue, and underlined, and would be click-able, linking you to “the_file_you’re_linking_to.htm”.

Later, you’ll make buttons by placing images in-between the opening and closing href.

Want to try it making a link?

1. Make sure your looking at the HTML for firstpage.htm
2. Click into the body, and add:
 Click here for the Second Page



```
firstpage - Notepad
File Edit Search Help
<HTML>
<HEAD>
<TITLE>Our First Website</TITLE>
</HEAD>
<BODY>
<A HREF="secondpage.htm"> Click here for the Second Page </A>
<CENTER>
Super Cool Web Site!
</CENTER>
<BR>
By a super cool web designer!
```

3. Save the HTML, and refresh the page in the Internet Explorer
(if you closed the browser, you’ll have to open it and click FILE-> OPEN-> BROWSE to find firstpage.htm)
4. Click the link!
5. Celebrate.
6. Open the HTML for secondpage.htm and add a link back to firstpage.htm
The link would be: Click here for the First Page
7. Test your links.

That’s it. You rule.

Linking to Pages on the World Wide Web

It’s perfectly legal to link to whomever you want to. You don’t have to ask. Keep in mind that a link to another site is a recommendation to leave your site...

It's easy to link to any web address. The only thing you have to remember is that you have to type *the whole address*, including the "http://".

To link to the Academy of Web Design, SF (which is highly recommended):

** This school rules! **

Linking to E-Mail

Linking to E-mail is also easy, but it doesn't work on everyone's browser. Users must configure their e-mail program directly within their browser, and most home users have absolutely no idea how to do such a thing. I'm not telling you never to set up an e-mail link, but it's a good idea to consciously post the actual address in a conspicuous location. The e-mail link looks like this:

** the e-mail address.com **

Easy enough, eh?

Take some time to practice building pages and linking between them.

Practice Assignment

OKAY, it's Practice Time!

The following exercise is a test to make sure that you understand and have absorbed the key points we have learned so far. *Read the entire assignment before you try it.*

You're going to create two web pages and link them together.

Please make a brand new page, don't just work some page you already have. You'll need to practice this stuff a bunch of times if you're going to be good at it.

Build the two pages about anything that you want, it's just for practice. If you're having trouble coming up with a subject for your web page, make it about puppies. Don't get too complicated; we're just trying to make sure that you can apply the skills you've just learned.

By the way, If you can't figure out how to do something, it may be because you haven't learned it yet! There's a bunch more stuff to come!

Make sure that:

1. You create a root folder and save everything in it.
2. You have a <head>
3. You have a <title>

4. Don't forget to close the `</title>` and the `</head>`
5. Make sure that you have a `<body>`.
6. Put some text in your `<body>`,
7. `<center>` the text,
8. Use the `
` tag,
9. Change font's appearance using the `` tag and it's modifiers: color, size, and family
10. Remember, to close the `` tag. You don't have to close the modifiers!
11. Link between the two pages using `` click here ``

Take your time, it's not a race, you have to remember these things.