

HTML & CSS

* HTML Tutor

* Simple HTML Editor:

HTML means Hypertext Markup language. It's basically just a text file with codes that tell the browser how to display the info. ex you can let the browser know that a certain string of text should be displayed as a header with bold font, or that text should be centered on the page. To let the browser know the text file contains HTML, we use the file extension .html rather than .doc or .txt or .rtf.

Since a HTML document is nothing but a text file, you can use any text editor to make one. You can use Microsoft Word, Pages, or your built in text editors provided by operating system. However, if you are a Mac user I'm going to recommend a special HTML editor which is free called Kompozer. The nice thing about Kompozer is that it allows you to preview your file in real time inside the application without having to save your html file & loading it in a browser. Although in this book we will be focusing on teaching HTML & CSS, Kompozer allows WYSIWYG editing of web pages. You can download it free here:

Linebreaks & center Tags

In our first tutorial we created a Hello world web page. It wasn't too exciting it just printed our Hello world message to the screen:

Hello world!

Now let's move forward by adding some text formatting. First let's add a couple more lines of text. Maybe we want print following:

Hello world!

My name is Joe.

My friend is Sally

Our HTML looks like this:

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

Hello world!

My name is Joe.

My friend is Sally

```
</body>
```

```
</html>
```

When you do this & save your html file & then open it in a browser, what you see is this:

Hello world! My name is Joe. My friend is Sally.

so even though we put line breaks by some spacing the browser ignores it. The browser sees one long string of text unless you add tags to tell it how to display that text.

Centering Text

To center text, what you do is add a center tag. The open tag to use is `<center>` & the closing tag is `</center>`. So we can center the Hello world! string in the following way:

```
<!DOCTYPE html>
<html>
<body>
<center>Hello world!</center>
```

My name is Joe.

My friend is Sally

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

This produces a web page that looks like this:

Hello world!

My name is Joe. My friend is Sally.

Notice that closing the center tag added a line break. To center all text, we would write:

```
<!DOCTYPE html>
<html>
<body>
<center>
Hello world!
My name is Joe.
My friend is Sally.
</center>
</body>
</html>
```

Now we obtain

Hello world! My name is Joe. My friend is Sally.

Line Breaks

We can change the appearance of page again & make it more readable by adding some line breaks. This is done with the tag `
`. Unlike other tags, a closing tag is not necessary. You just add one for each line break you want. For now lets remove the `center` tag & just add line breaks. So lets add a line break after the

Hello world! string:

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

Hello world! `
`

My name is Joe.

My friend is Sally

</body>

</html>

This produces:

Hello world!

My name is Joe. My friend is Sally.

We can add more line breaks to put each sentence on its own line:

<!DOCTYPE html>

<html>

<body>

Hello world!

My name is Joe.

My friend is Sally.

</body>

</html>

And we get this:

Hello world!

My name is Joe.

My name is Sally.

To make it double spaced, we can add extra
 tags.

<!DOCTYPE html>

<html>

<body>

Hello world!

My name is Joe.

My friend is Sally.

</body>

</html>

-And now we see:

Hello world!

My name is Joe.

My friend is Sally

Remember for line breaks you don't need a closing tag. To add more line breaks, just add more

tags. Suppose we want:

Hello world!

My name is Joe.

My friend is Sally.

To get this result our HTML looks like this:

<!DOCTYPE html>

<html>

<body>

Hello world!

My name is Joe.

My friend is Sally.

</body>

</html>

In the next lesson, we'll learn how to add a headline to our webpage

Header Tags

Header tags enable us to easily create nice bold text to spruce up appearance of our web pages. Header tags use the format `<h x >` where x is an integer 1, 2, 3, 4 -- the smaller number, the large header. The truth is you already know about this since you've probably used diff levels of headers in your word processing program.

Header tags have an opening & closing tag.

`<h x > your text here </h x >`

`<h1>Hello world! </h1>`

If our entire html looks like this:

`<!DOCTYPE html>`

`<html>`

`<body>`

`<h1>Hello world! </h1>
`

`My name is Joe.
`

`My friend is Sally`

`</body>`

`</html>`

The result we see is:

Hello World!

My name is Joe

My friend is Sally

When you add a header tag, the text bet' the header tags isn't automatically centered. We have to do that manually. Let's change our HTML.

```
<!DOCTYPE html>
<html>
<body>
<center><h1>Hello world!</h1></center><br>
My name is Joe.<br>
My friend is Sally.
</body>
</html>
```

Now the page appears as:

Hello World!

My name is Joe.

My friend is Sally.

We can also enhance the appearance of the page by adding subheadings. This is done by specifying the header level with integer larger than 1. e.g. `<h1><h2>`, `<h3>` etc. where `<h1>` is highest header level, so will have the largest text. Let's add a header & put a subject heading as follows:

```
<!DOCTYPE html>
<html>
<body>
<center><h1>Hello world!</h1></center><br>
<h2>Friends</h2>
```

My name is Joe.

My friend is Sally.

</body>

</html>

Now the web page looks like this:

Hello world!

friends

My name is Joe.

My friend is Sally.

Notice that some spacing is automatically placed in before header & text that follows. Basically this is working like you were just typing away in word processor, except we are putting in formatting commands behind the scenes.

In the next chapter, we'll see how to format text colors.

Font color

A plain black & white web page might be functional, but it's not very interesting. Let's see how we can improve the appearance of our web pages using the font tag & color attribute. It's very easy. Let's return to the HTML we had in the last lesson:

<!DOCTYPE html>

<html>

<body>

<center><h1>Hello world! </h1></center>

<h2>friends </h2>

My name is Joe,

My friend is Sally.

</body>

</html>

To have a text string appear in a particular color, we use the syntax:

Text String.

Hence, we can have text appear red using:

some text

Changing our html file with this in mind we can make the main header red:

<!DOCTYPE html>

<html>

<body>

<center><h1>Hello World!<h1></center>

<h2> friends</h2>

My name is Joe.

My friend is Sally.

</body>

</html>

The web page now appears as:

Hello world!

friends

My name is Joe.

My friend is Sally.

let's say we wanted the "friends" sub-header to appear as blue text. All we have to do is add another `font` tag with the `color` attribute, for the "friends" text string:

```
<!DOCTYPE html>
<html>
<body>
<center><h1><font color="red">Hello world ! </font>
</h1></center><br>
<h2><font color="blue">friends </font></h2>
My name is Joe. <br>
My friend is Sally.
</body>
</html>
```

Note that we need a closing tag when using diff font attributes.

Now our web page looks like this:

Hello world !

friends

My name is Joe

My friend is Sally

Besides changing color, you might want to make other changes to fonts such as setting the type face. We will explore this in the next lesson

Font size & Type Face

In this lesson we'll learn how to change font size & type face. This is also done using the `font` tag.

To specify a font size, we simply write:

`This is some text.`

where x is an integer for ex.

` My name is Joe.`

You can set diff attributes using same font tag, like Suppose that we wanted the text to appear red & set the font size to 5. This could be done by writing:

` My name is Joe.`

This produces:

My name is Joe.

To change the typeface, we can set the `face` attribute in a `font` tag. Ex to set the font of text string to verdana, we write:

` My other friend is Bob.`

And we obtain:

My other friend is Bob.

As before we can combine multiple attributes including the typeface. So lets set the text to green, the face to verdana, & also set the size attribute of the text.

` My other friend is Bob.`

My other friend is Bob.

Being able to change these font attributes gives us the power to improve appearance of our web pages. Referring to the HTML of the last chapter, suppose that we changed it to :

```
<body>
<center>
<h1><font color="red"> Hello world! </font></h1>
</center>
<h3><font color="blue"> friends </font></h3>
<font color="red" size="5"> My name & Joe, </font>
<br>
<br>
<font color="blue" size="4"> My best friend is sally.
</font>
<br>
<br>
<font color="green" face="verdana" size="4">
    My other friend is Bob. </font>
<br>
<br>
</body>
</html>
```

Now we see :

friends

Hello world!

My name is Joe.

My best friend is Sally
My other friend is Bob.

Paragraph & Div Tags :

Next we explore two more formatting tags that can be used to improve the appearance of your web pages & present content in a meaningful way. The first is the paragraph tag. It does exactly what it says, it increases a formatted paragraph for any text enclosed within the tags. The paragraph tag is defined by `<p>` & you must add a closing tag `</p>` where you want paragraph to end.

Ex:

```
<body>
<p> Hello world this is some text. Here is second line.
... </p>
<h2> This is my heading </h2>
Another line of text. <br>
Line two of new section. <br>
Some more text. <br>
<h2> A different Section </h2>
Text for the second section.
<br>
<br>
</body>
</html>
```

This will put "Hello world this is some text. Here is a second line." Into a paragraph & automatically put spacing bet' it & heading on text line

The div tag is used to group together elements into a sect' & apply formatting to them. So. is short it defines a Sect' in your html document. for ex, we will take some of the text above & define a Sect' out of it using the div tag, & color font blue. The div tag is written as `<div style="...>` & you use a closing tag to end the section as `</div>`.

You can see how to use the div tag here, where we color a section blue :

`<body>`

`<p> Hello world this is some text. Here is a second line. </p>`

`<div style="color:rgb(0,0,255);>`

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

Another line of text. `
`

line two of new section. `
`

Some more text. `
`

`</div>`

`<h2> A Different section </h2>`

Text for the second sect?

`
`

`</body>`

`</html>`

we obtain this result:
Hello world this is some text. Here is a 2nd line.

This is my heading

Another line of text

Line two of new section.

Some more text.

- A Different Section

- Text for the second section

Hyperlinks

The internet wouldn't have much functionality if you could only look at one web page at a time. To ease the ability of users to move about your website & to visit related pages of interest we need to add hyperlinks to our html documents. This is done with the hyperlink tag.

Oddly the hyperlink tag is denoted with the letter a. The letter a is used because it means anchor text. Hence the `<a>` tag defines a hyperlink which will open a new web page when the user clicks on it. As you probably know hyperlinks are displayed to the user as pages they've already visited.

Several attributes can be specified with the hyperlink tag. The most important is href attribute which tells browser which link to open when user clicks on text, so href is just the URL of the target web page.

HTML 5 introduces some new attributes. Ex, you can use download to tell the browser to begin downloading a file when the user clicks on the link.

The target specified in the href attribute can be a local file.

```
<a href = "url to open"> Text displayed to user </a>
```

Here is an ex that will display a link to the New York Times website:

```
<body>  
Hello world!  
<br>  
<a href = "http://nytimes.com"> New York Times </a>  
<br>
```

This looks like so:

Hello world!
New York Times

If we wanted to just display the actual link to the URL, we could write:

<body>

Hello world!

 http://nytimes...
com

Then we would get:

Hello world!

http://nytimes.com

Now suppose you want to open a file on your own server. Consider the case of a web page named `about.html` in your same directory.

Then you would write:

<body>

Hello world!

about us.

If the file was in a folder called "info" you'd write

<body>

Hello world!

/Info/About Us

often links are placed in the middle of a text string

Ex. Here is some more text linking to cable news

network find out what the latest news is.

This displays as :

Here is some more text linking to cable news network find out what latest news is.

Displaying Images:

Images are displayed in a web page using the img tag. The syntax is :

You can link to images on your own server or to any image on the web if you know the URL.

To give a specific ex I have obtained a link to a picture of the actress Selma Hayek.

We can display the image in our web page as follows:

<body>

<h1>Selma Hayek!</h1>


```
<br>

<br>...
```

If the image doesn't render, the text "Selma Hayek Not Here" will be displayed in its place. Here is how the web page looks:

Selma Hayek!

To see how the alt attribute works, you can copy & paste from previous in kompozer to a text document, & you will see:

Selma Hayek!

Selma Hayek not here

You can put other tags around the img to improve the appearance of your web pages. Ex, if we wanted to center the image, we would write:

```
<body>
<h1>Selma Hayek!</h1>
<br>
```

```
<br>
<center>

</center>
<br>
<br>
</body>
</html>
```

Video Players On Web pages

Our next topic is the `video` tag. Using `<video>` you can put a link to a video you want to use & display it using HTML 5 in a full featured video player. The best way to teach this is to simply show an example.

```
<body>
<video width="400" controls="">
<source src="SavageArchives.info/video/20-
Timer-Sm.mp4" type="video/mp4">
Your browser doesn't support HTML 5 video
</source>
</video>
<p>Video courtesy of <a href="http://www.
xcode-training-and-tips.com/">
target=_blank">Xcode Training</a>
```

</p>

</body>

So we start with the <video> tag, then follow it with the <source> tag which tells the browser the URL where the video is located. As usual the URL can be a local file or any URL on the internet.

The code has a bit of text that is displayed if the browser doesn't support HTML 5. Kompozer has not been updated in a while so when I preview this code in Kompozer I see this:

Your browser does not support HTML 5 video.

Video courtesy of Xcode Training

On the other hand, opening it in the browser we see:

Ordered & Unordered Lists:

In this lesson we are going to learn how to display bulleted & numbered using HTML. This is done using the Unordered list or ordered list tag. An unordered list is just a bulleted list of items. To create an unordered list, you will enclose your list items within an opening tag & a closing tag. Each list item is denoted with a list item or

tag. You need a closing `` tag at the end of each list item.

`<P> My best friends: </P>`

Now we will need to enclose list with `` & ``:

`<P> My Best friend : </P>`

``

``

Each bulleted list item will appear as `` item text ``. Let's make our list of names:

`<P> My best friends: </P>`

``

` Sally `

` Jose `

` Paul `

``

What this produces is the following:

My best friends:

• Sally

• Jose

• Paul

Using `` in place of `` produces a numbered list. The tag `` means Ordered listing, for example:

`<P> Countries: </P>`

``

` China `

` United States `

```
<ol> United Kingdom </li>
  <li> France </li>
</ol>
```

Gives us :

Countries :

- 1) China
- 2) United States
- 3) United Kingdom
- 4) France

Big and small tags

The Big & small tags provide you with a means to carefully control text size. You can nest big & small tags to get a string of text to be the size you want.

for example :

```
<h1> My web page </h1>
<p> video <big> <big> u </big> </big> <small>
  <small> <small> courtesy </small> </small>
</small>
```

of xcode training </p>

Produces :

Video is courtesy of xcode-training.

Basic Text formatting Tags

In this lesson we will introduce tags used to make text :

- Bold
- Italic
- Underlined

To make a string of text bold, enclose it in & tags.

for example:

Barak Obama is president of United States

Produces:

Barak Obama is president of United States

To put a string in italics enclose it in & tags:

Barak Obama is *President* of United States gives us:

Barak Obama is president of the United States

To underline a string of text, enclose it in and tags:

Barak Obama is president of the United States

This gives us:

Barak Obama is president of the United States

Barak Obama is president of the **United States**

Giving:

Barak Obama is president of the United States

To also make it italic, just add `<i>` & `</i>`-tag.
Barak obama is president of the `<i><u>`
`United states </u></i>`

This gives:

Barak obama is president of the United states

Text often requires superscripts & subscripts.
You can do this in HTML using the `sup` & `sub`
tags. Each also requires a closing tag.
Otherwise any text that follows will also be
altered by the tag.

Barak Obama won the 2012 presidential elect?
in the United States.

`<i>` Barak obama `</i>` won the 2012 `<i>`
Presidential Election `</i>` in the `<u>` United
States `</u>`. `¹⁹`

To create a subscript, simply enclose the text
in `_{` & `}`-tags. To obtain:

x_i

We should use:

`x _i`

Superscript and Subscript Tags

There are two tags that are useful for displaying quotes on your webpages. The first is the `<q>` tag which simply encloses text in quotes. Suppose that we had this phrase of plain text in our HTML file:

Not only our future economic soundness but the very soundness of our democratic institutions depends on the determination of our govt to give employment to idle men.

If we enclose it in `<q>` & `</q>` tags, on the web page it will be displayed like this:

"Not only our future economic soundness but very soundness of our democratic institutions depends on the determination of our govt to give employment to idle men".

We can also enhance the display of the quote using `<blockquote>` tag. what this does is set off & indent quote. So if we had:

Here is a line.

Not only our future economic soundness but the very soundness of our democratic institutions

depends on the determination of our govt to give employment to idle men.

Here is another line.

changing our HTML to :

"Not only our future economic soundness but the very soundness of our democratic institutions depends on determination of our govt to employment to idle men"

Here is another line.

Creating Tables

Tables allow you to display data in a row & column format. There are three tags you will need to create a simple table:

- <Table>
- <TR> - table row
- <TD> - table data cell

<TR> is a tag that tells the browser to begin a new row in the table. Anything in between the opening tag <TR> & the closing tag </TR> constitutes a single row. Individual cells in row are denoted by <TD> with the closing tag </TD>.

```
<center>  
<h1> Basketball scores from Final Four </h1>  
</center>
```

Now let's add our table. We begin by adding the table tag, specifying border width:

```
<center>  
<table summary="Example" border="1">  
</table>
```

The summary is not displayed on the page. Now let's add our rows:

```
<center>  
<table summary="Example" border="1">  
<tr>  
<td> Game One </td>  
<td> Michigan </td>  
<td> Kentucky </td>  
</tr>  
<tr>  
<td> Game two </td>  
<td> Arizona 68 </td>  
<td> Duke 61 </td>  
</tr>  
</table>  
</center>
```

Drawing lines On web pages :

In this lesson we are going to learn how to draw horizontal & vertical lines. Drawing horizontal lines with HTML is very easy using the `<hr>` tag. All you need to do is place an `<hr>` tag where you want the line to appear.

```
<body>
<center>
<h1> Basketball scores from Final Four </h1>
</center>
<hr>
<br>
<br>
<center>
<table summary="Example" border="1" cellpadding="5" cellspacing="5">
<tr>
<th> Game One </th>
<td> Michigan 75 </td>
<td> Kentucky 73 </td>
</tr>
<tr>
<th> Game Two </th>
<td> Arizona 68 </td>
<td> Duke 61 </td>
</tr>
```

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

we see:

You can also draw vertical lines using the `<hr>` tag, but it takes a bit of a trick. The following code using 2 `<hr>` tags in a row will draw a vertical line down the center of the web page:

```
<hr  
style="padding: 0px; height: 400px; width: 2px;  
margin-left: -8px;">  
<hr style="padding: 0px; height: 100px; width:  
2px; margin-top: -8px;">
```

Drop Down Lists

On many occasions you will want to give website visitors the ability to select an option from a drop down list. Let's see how to set a list like this one up for your web page:

My Great Header

Some text for my great webpage.

✓ Alaska
California
Delaware
Florida
Texas

This is done using the `<select>` tag. You enclose the choices you want to present to the user in between opening & closing select tag, using the `<option>` tag for each item. The format used for the option tag is to present the value & text displayed to the user.

For example:

`<option value="Alaska">Alaska</option>`

The entire code for the page shown above, including header, horizontal line & drop down list with the code relevant for the drop list highlighted in red is as follows:

```
<body>
  <h1> My Great Header </h1>
  <p> Some text for my great Webpage. </p>
  <hr>
  <br>
  <br>
</body>
```

Playing Audio Files

In this lesson we're going to learn how to set up an audio player on your web page. It will be complete with play / pause buttons, volume control, & time played displayed. These controls are displayed by default.

To play audio you need 2 tags:

- `<audio>` tag
- `<source>` tag with a path to your file & telling the browser what type of audio file you have

Setup is easy. Begin with the audio tag:

`<audio controls = "">`

`<source src = "Genesis.mp3" type = "audio/mpeg">`

Our entire code looks like:

`<audio controls = "">`

`<source src = "Genesis.mp3" type = "audio/mpeg">`

Your browser does not support audio controls

`</source>`

`</audio>`

If we include this in the code for the previous web page we were working on:

`<body>`

`<h1>My Great Header</h1>`

`<p> Some text for my great webpage.</p>`

`
`

`
`

```
<br>
<audio controls=""><source src="Genesis.mp3"
type="audio/mpeg"> your
browser doesn't support audio controls
</source></audio>
</body>
Then our page looks like this:
```

Using the `iframe` tag allows you to embed another web page inside your web page. In the simplest case, we can just pass the URL

```
<iframe src="http://nytimes.com"></iframe>
```

However there are many properties we can specify for ex, we can set the width & height of frame

```
<iframe src="http://nytimes.com" width="700"
height="400"></iframe>
```

```
<iframe src="http://nytimes.com" style="border: 2px
solid blue"
height="500" width="700"></iframe>
```

Adding this to the HTML we've used in several recent examples:

✓ Alaska
California
Delaware
Florida
Texas

This is done using the `<select>` tag. You enclose the choices you want to present to the user in between an opening & closing `select` tag, using the `<option>` tag for each item. The format used for the `option` tag is to present the value & text displayed to the user.

For example:

`<option value = "Alaska"> Alaska </option>`

The entire code for the page shown above, including header, horizontal line & drop down list with the code relevant for the drop list highlighted in red is as follows:

```
<body>
  <h1> My Great Header </h1>
  <p> Some text for my great Webpage. </p>
  <hr>
  <br>
  <br>
</body>
```

playing Audio files

In this lesson we're going to learn how to set up an audio player on your web page. It will be complete with play / Pause buttons, volume control, & time played displayed. These controls are displayed by default.

To play audio you need 2 tags:

- <audio> tag
- <source> tag with a path to your file & telling the browser what type of audio file you have

Setup is easy. Begin with the audio tag:

<audio controls = "">

<source src = "Genesis.mp3" type = "audio/mpeg">

Our entire code looks like:

<audio controls = "">

<source src = "Genesis.mp3" type = "audio/mpeg">

Your browser does not support audio controls

</source>

</audio>

If we include this in the code for the previous web page we were working on:

<body>

<h1>My Great Header </h1>

<p> Some text for my great webpage. </p>

<hr>


```
<br>
<audio controls=""><source src="Genesis.mp3"
type="audio/mpeg"> your
browser doesn't support audio controls.
</source></audio>
</body>
```

Then our page looks like this:

Using the `iframe` tag allows you to embed another web page inside your web page. In the simplest case, we can just pass the URL

```
<iframe src="http://nytimes.com"></iframe>
```

However there are many properties we can specify for `src`, we can set the width & height of frame.

```
<iframe src="http://nytimes.com" width="700"
height="400"></iframe>
```

```
<iframe src="http://nytimes.com" style="border: 5px
solid blue"
height="500" width="700"></iframe>
```

Adding this to the HTML we've used in several recent examples:

```
<body>
<h1> My Great Header </h1>
<p> Some text for my great webpage. </p>
<hr>
<br>
<br>
<iframe src="http://nytimes.com" style="border: 5px solid blue;" height="500", width="700"></iframe>
</body>
```

Given us this web page, with the New York Times embedded inside the blue frame:

Forms input:

The `<form>` tag allows you to create an input form to do things like collect names, email addresses & so on. Everything that appears on the form is enclosed in betⁿ form opening & closing tags:

```
<form>
```

Your stuff here

```
</form>
```

For ex, we can create i/p text boxes to let the user type in their name & details

```
<body>
  <h1> My Great Header </h1>
  <p> Some text for my great webpage. </p>
  <hr>
  <br>
  <br>
  <iframe src="http://nytimes.com" style="border:
    5px solid blue;" height="500", width="700" ></iframe>
</body>
```

Give us this web page, with the New York Times embedded inside the blue frame:

Forms input:

The `<form>` tag allows you to create an input form to do things like collect names, email addresses & so on. Everything that appears on the form is enclosed in betⁿ form opening & closing tags:

```
<form>
```

Your Stuff here

```
</form>
```

For ex, we can create i/p text boxes to let the user type in their city & state:

```
<form>
```

City:


```
<input type="text" name="City">
```

```
<br>
```

State:


```
<input type="text" name="state">
<form>
<input type="radio" name="Sex" value="male"
      checked>Male
<input type="radio" name="Sex" value="female"
      >Female
```

of course you have to provide a means for the user to submit the data. You can add a submit button with this line:

```
<input type="Submit" value="Submit">
```

To make something happen when the user clicks the submit button, such as take the info entered above e.g. sticking it into a database, you need to write a script to handle the submit clicked action. The script itself is out of scope of this tutorial, but let's say it was `myaction.php`. Then we would modify the opening form tag to have the form execute this action when the button is clicked:

```
<form action="myaction.php">
```

CSS for Bi-colored Web page

The first thing to do in order to set this up is to put your style sheet in bet' the head tags. Our very simple style sheet will set the width of side-bar & its background color. We also set the background color & left margin for the main part of the page:

```
<head>
<style type = "text/css">
html, body {height: 100%; margin: 0}
#content {width: 100%; height: 100%}
#left {width: 250px; height: 100%; float: left;
background-color: #FFFFCC}
#right {margin-left: 250px; height: 100%; background-color: #CCFFFF}
</style>
</head>
```

In between the opening & closing tags, we put the `<div>` tags for each sect'. First here is the sidebar. We've to tell the browser what style to use. This is done by setting the id to left:

```
<div id = "left">
<h2> Sidebar </h2>
<p> Some Sample text </p>
</div>
```

More Text Formatting Tags

To highlight a set of text, use the mark tag, for ex, to have the string "Queen of England" highlighted in yellow we write:

```
<p> Everyone came from far & wide to see the  
<mark> Queen of England </mark> as she rode  
through London. </p>
```

Suppose you want to enclose part of a webpage. This can be done using the fieldset & legend tags.

```
<fieldset>  
<legend> Some Boxed Stuff : </legend>  
<p> Some Sample text. </p>  
</fieldset>
```

Finally, the preformatted `<pre>` allows us to type text & have it appear on the web page as typed. If we just type:

Hello from Times Square
located in New York City
The finest city in all the
world except maybe Paris or
London.

It will appear as:

that tells the browser to use our formatting, so it appears as:

Hello from Times Square
located in New York City.
the finest city in all the
world except maybe Paris or
London

CSS style sheets

CSS means cascading style sheet. It is simply a file that goes along with your HTML file which specifies the look & formatting of the HTML file. We will illustrate this with a simple example.

First create a file called thecssfile.css & place it in the same folder as your HTML file. In this ex, we will see how to specify how text with certain tags appears - what font is used, what style, & what size.

Note:

Comments in a CSS file are lines which are ignored by the browser. These are enclosed between the characters /*...*/.

/* Example comment that would be ignored */

tag-name {
 properties
}

for ex, we can specify font used & text size
for an h1 header.

h1 {

font-family: Arial, 'Helvetica Neue', Helvetica,
 sans-serif;

font-size: 24px;

font-style: bold;

font-variant: normal;

font-weight: 700;

line-height: 26.3999996185303px;

}

* The CSS file */

h1 {

font-family: Arial, 'Helvetica Neue', Helvetica,
 sans-serif;

font-size: 24px;

font-style: bold;

font-variant: normal;

font-weight: 700;

line-height: 26.3999996185303px;

}

h3 {

font-family: Arial, 'Helvetica Neue', Helvetica,
 sans-serif;

```
font-size: 14px;  
font-style: normal;  
font-variant: normal;  
font-weight: 500;  
line-height: 15.399996185303px;  
}  
  
p {  
font-family: Arial, 'Helvetica Neue', Helvetica,  
    Sans-serif;  
font-size: 14px;  
font-style: normal;  
font-variant: normal;  
font-weight: 400;  
line-height: 20px;  
}  
  
blockquote {  
font-family: Arial, 'Helvetica Neue', Helvetica, Sans-serif;  
font-size: 21px;  
font-style: italic;  
font-variant: normal;  
font-weight: 400;  
font-height: 30px;  
}  
  
pre {  
font-family: Arial, 'Helvetica Neue', Helvetica,  
    Sans-serif;  
font-size: 13px;  
font-style: normal;
```

```
font-variant: normal;  
font-weight: 400;  
line-height: 18.5714302062988px;  
}
```

To use the CSS file, you need to add a reference to it in your header `<head>` of the HTML file. This is placed in betⁿ the header tags `<head>` & `</head>`. The important line to add is :

```
<link href="theCSSfile.css" rel="stylesheet" type="text/css">
```

```
<html>  
<head>  
<title>CSS Example </title>  
<meta http-equiv="Content-Type"  
Content="text/html; charset=iso-8859-1">  
<link href="theCSSfile.css" rel="stylesheet"  
type="text/css">  
</head>
```

Then we can add some things to our HTML body:

```
<body>  
<h1> My Great Web page </h1>  
<br>  
<q></q>  
<blockquote><q> This is best day in the world ! </q>  
</blockquote>
```

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

Element and id selectors

Although in the last ex, we cleared an external CSS file, this is not always necessary. You can include your style sheets directly in the `<head>`, `</head>`-tags. Let's look at this & do so examining two ways to proceed.

For ex, we can specify styles for `<p>`, `<h1>`, & `<h2>` for a given web page:

```
<head>  
<style>  
p {  
    color: blue;  
    text-align: center;  
}  
  
h2 {  
    text-decoration: underline;  
    text-align: center;  
    color: red;  
}  
  
h1 {  
    text-shadow: 2px 2px #0000ff;  
}  
</style>
```

```
<title> Example Web page </title>  
</head>
```

In this case, if we just use `<p>`, the text will be blue, but if we use `<p id="mytag">`, the text will appear green. Hence, we can apply the style we need at will:

```
<body>  
<h1> My Great Web page </h1>  
<p> Example text for a paragraph </p>  
<br>  
<br>  
<h2> Second Header </h2>  
<br>  
<p id="mytag"> Hello from vacationland. </p>  
<p> Here is a second paragraph string. </p>  
<h2 id="mytag"> Third Header </h2>  
</body>
```

Page Backgrounds

Let's say you want to set a background color for your web page & make headers appear as white text. We can choose a cyan color for our background:

```
background-color: #01c4de;
```

will give the color displayed in the image. To set the background color for the entire webpage, we specify that we want this to be the background color for the body tag.

```
body {  
background-color: #01c4de;  
}
```

We can tell the browser that we want all h1 headers to be rendered in white text using:

```
h1 {  
color: white;  
}
```

To tell the browser that you want h2 headers to be red, centered & underlined you would write:

```
h2 {  
text-decoration: underline;  
text-align: center;  
color: red;  
}
```

Classes in CSS

In this lesson we're going to take a step toward more advanced CSS by introducing notion of classes, we will use this to build a webpage like this:

A class is just identify elements in your HTML & give them certain attributes. The flexibility of the class allows you to apply characteristics to multiple items in your HTML if they are elements in your webpage that have been identified as being that class & applies the attributes you specify to it.

```
P. myblue class {  
    color: blue;  
}
```

To specify that a paragraph in your HTML file is a member of this class,

```
<p class="myblue class">This is a sample paragraph  
that uses the myblue class CSS class. </p>
```

```
.center {  
    text-align: center;  
    color: blue;  
}
```

Then you can apply this to multiple elements:

```
<h1 class="center">Header with the center class</h1>
<p>A normal paragraph without special formatting
<p class="center">A formatted paragraph.</p>
<p>Another normal paragraph.</p>
```

This produces:

Header with the center class

A normal paragraph without special formatting

-A formatted paragraph

Another normal paragraph

So we've saved some labor. we are able to apply the same attributes to different HTML elements. So lets see how to create web page shown at beginning of this chapter.

First lets add the flower in the upper left.

```
<Style>
body {
  margin-left: 200px;
  background: #5d9ab2 url("flower.jpg") no-repeat
  top left;
}
```

Now let's create a class with the property of centered text. The class will be called container;

```
.container {
```

```
    text-align: center;
```

```
}
```

The next class we create will draw the red box:

```
.my_box {
```

```
    border: 2px solid red;
```

```
    margin-left: auto;
```

```
    margin-right: auto;
```

```
    width: 80%;
```

```
    text-align: center;
```

```
    padding: 8px;
```

```
}
```

Finally we close out our <style> sheet setting

h1 headers to white.

```
h1 {
```

```
    color: white;
```

```
}
```

Now let's write the html for page:

```
<body>
```

```
<div class="container">
```

```
<div class="my_box">
```

```
<h1> My Great web page </h1>
```

```
<p> Some text to display. This is our most extensive
```

example of CSS yet. </p>

</div>

</div>

</body>

Fixed Attachments

In this lesson we'll learn to fix an element on the page. In other words when you scroll the page, the element will remain in place while the rest of page scrolls past. we will use the web page from the previous lesson & leave the flower in place.

It's actually pretty simple. we only need to change the CSS for the body tag, specifying the value of the background-attachment attribute.

Change your CSS to:

body {

margin-left: 500px;

background: #5d9ab2 url("flower.jpg") no-repeat
top left;

background-attachment: fixed;

}

That's all there is to it! Save your file & load it in the browser again & you'll find that the flower stays in the upper left corner of the page.

Add a large amount of text to your page to test the scrolling.