9. Preformatted Text

How do you

```
     display
          text
      where              space,                    TABS     and    carriage return
                     characters       count?
```

Objectives

After this lesson you will be able to:

- Create a table of aligned text
- Control the placement of text on a page when tabs and spaces are important.
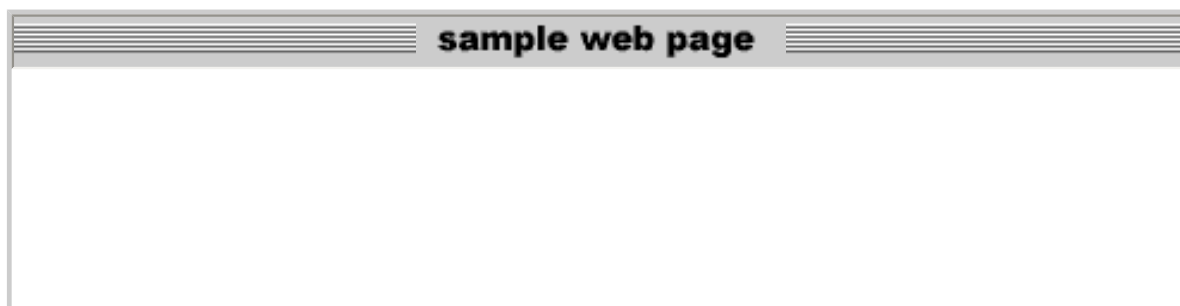

Lesson

In previous lessons we have seen that a web browser will ignore extraneous space characters, tabs, and carriage returns in your HTML files. However, there are some instances where it will be important to maintain these aspects of page layout. In this lesson, the example will be where we want to insert a table of text with aligned columns.

The **preformat** tag instructs your web browser to display the text **exactly** as typed in the HTML document, including spaces, tabs, and carriage returns. A browser typically displays such text as a

```
m  o  n  o  s  p  a  c  e  d
```

type, meaning a font in which every character has the same width. Here is example of what the **preformat** does:

sample web page

```
    <pre>
     We have indented with 5 space characters.
     And used the carriage return to jump
     to
     a
     new
     line.

            Here        we
            use
            spaces      to
            create      a
            text        table.
    </pre>
```

Without the **<pre>** and **</pre>** tags, the same HTML produce:

---
sample web page

We have indented with 5 space characters. And used the carriage return to jump to a new line. Here we use spaces to create a text table.

With the **preformat** tag, it helps if the text editor you are using can display in a monospaced font (such as "Courier" or "Monaco"); if not, you will have to count spaces when aligning text into columns (and you will mutter bad words under your breath).

For our Volcano lesson, we want to add a table under the **Introduction** section that lists several well-known volcanoes, when they erupted, and the volume of erupted material. To do this:

1. Open the second HTML file, **index.html** in your text editor.
2. Under the last portion of the **Introduction** section, place a header of level 4 (<h4>) with the text **Volumes of Some Well-Known Volcanic Eruptions** (If you do not remember how to make headers, see lesson 3).
3. Below this heading, enter the following text **exactly** as follows (this would by an opportune time to cut and paste from this web page!):

```
<pre>
  Eruption                      Date            Volume in km^3
  --------                      ----            --------------
  Paricutin, Mexico             1943                 1.3
  Mt. Vesuvius, Italy         79 A.D.                 3
  Mount St. Helen, Washington   1980                  4
  Krakatoa, Indonesia           1883                 18
  Long Valley, California     pre-historic        500 - 600
  Yellowstone, Wyoming        pre-historic           2400
</pre>
```

In this example we use space characters to make the first column left justified and the other 2 columns center-justified. The dashes are used to highlight the column headings.

4. **Save** and **Reload** in your web browser.

Check Your Work

If your web page was different from the sample, review the text you entered in the text editor. If the columns are not aligned, then it is likely that you are missing or have too many space characters.

Review

Review topics for this lesson:

1. How does the `preformat` tag change the way that a web browser interprets HTML?
2. In what other situations might you use this tag?

More Information

You can still use HTML tags inside text that is marked by the `preformat` tag. For example we can add a hypertext link and some style tags that are **within** the `<pre>...</pre>` tags:

HTML	Result
```<pre>` `This tutorial is copyright` `1995, 1996` `` `    <b>Be sure to tell all of` `    your friends about it!</b>` `            <i>We` `                Welcome` `                  Your` `                    Feedback</i>` `fondly,` `<a href=` `"http://www.mcli.dist.maricopa.edu/">` `mcli</a>` `</pre>```	**sample web page** This tutorial is copyright 1995, 1996 **Be sure to tell all of your friends about it!** *We* *Welcome* *Your* *Feedback* fondly, mcli

Note that the HTML tags do not count as spaces; they are ignored within the preformat region.
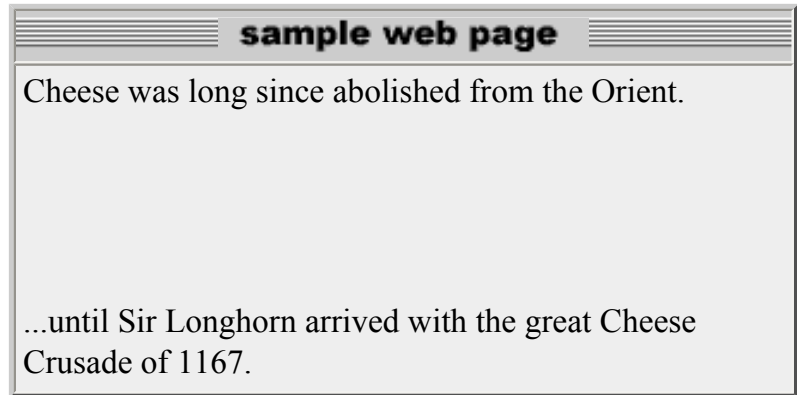
Some web page developers will use the `<pre>...</pre>` tags with carriage returns in between to add white space between text or graphics in their web pages -- especially if they wish more white space than provided by the `<p>` tag. For example:

HTML	Result
`Cheese was long since abolished from the Orient.` `<pre>` `</pre>` `...until Sir Longhorn arrived with the great Cheese Crusade of 1167.`	**sample web page** Cheese was long since abolished from the Orient. ...until Sir Longhorn arrived with the great Cheese Crusade of 1167.

Independent Practice

Add a table or chart to your HTML document using the `preformat` tag.

Coming Next....

Use special character sets to add some **âccèñt** to your web pages.

Writing HTML: Lesson 9: Preformatted Text

10. Special Characters

How do you say...

>>>Æ ñ Þóßÿ ?

NOTE: If the above characters do not display various accents or diacritical markers, then your web browser does not support the ISO character set. You would likely want to skip this lesson.

Objectives

After this lesson you will be able to:

- Use the HTML codes for ISO Latin 1 characters to display accent marks for non-English letters.
- Override the HTML use of < and > symbols when you need them in a document.
- Add extra spaces in between words and letters in a document.

Lesson

Accent Marks

Sometime you may need to use a special character in an HTML document, an accent or diacritical mark. The ones that are known as ISO These special characters are marked in HTML as:

```
&xxxx;
```

where XXXX is the code name for the special character. To create the special character for the German umlaut **(ü)**, we need to use the HTML:

```
&uuml;
```

For example, in the **Terminology** section of our Volcano lesson, we want to add an explanation of a technical term that was used to describe a particular type of volcanic flow. This term `nuee ardente` is from the

French term for "glowing cloud"; but to use the proper spelling we need an "acute" accent, so that the word appears as **nuée ardente**. In this case, we replace the first **e** in **nuee** with the HTML for the acute accented "e" **é**:

```
nu&eacute;e ardente
```

For reference on these codes, see the list of special <u>ISO characters.</u>

Now we will add a sentence to our HTML document that uses an accented letter:

1. Open the HTML file, **index.html** in your text editor.
2. Under the list of terms of the Volcanology Terminology section enter the text:

```
The term <I>nu&eacute;e ardente,</I> or
"glowing cloud" was first used by La Croix (1904)
in his description of the volcanic flows he observed in
the 1902 eruption of Mt Pel&eacute;e, a historically
active volcano on the island of Martinique.
```

> **NOTE: We have applied the acute accent mark for two "e" letters in this sentence. It may look strange! Be sure that you replace the letter with the sequence that displays the same letter with the accent mark.**

3. **Save** and **Reload** the HTML file.

HTML Escape Sequences

The HTML for the accent mark is an example of the more general class of tags known as **escape sequences**. In entering HTML so far, you may have wondered what you do when you need to use a < (less-than) or a > (greater-than) sign? These two characters, plus the & (ampersand) have special meaning in HTML and cannot be used as typed. Instead, use the **escape sequences:**

```
&lt;  is used for <
&gt;  is used for >
&amp; is used for &
```

Now let's apply one of these symbols in our Volcano lesson. In the <u>previous lesson</u>, we added a table that lists several volcanoes and how much material was erupted from each. Let's say one of the values (500-600) for Long Valley is not very accurate (often such values are estimates), and we would like the entry to read >450 & <700. To do this:

1. Open the HTML file, **index.html** in your text editor.
2. Under the heading of **Volumes of Some Well-Known Volcanic Eruptions**, find the line for Long Valley in our table:

`Long Valley, California       pre-historic           500 - 600`

and change it to:

`Long Valley, California       pre-historic           >450 & <700`

> **NOTE: Although we are using the escape sequences within a preformatted text, note how a web browser properly interprets and displays the special characters. The escape sequences can thus be used in all portions of an HTML document including headings and anchor links.**

3. **Save** and **Reload** the HTML file.

Extra Spaces

As you may have seen, a web browser will ignore all extraneous spaces in your HTML files. However, there may be times when you really want to have more than one space. When? Some writers like to have two spaces following the period at the end of the sentence. What if you wanted to indent the first sentence of every paragraph? How about having a single word with its individual letters spaced far apart?

An HTML code for adding a space character is the special character known as the "non-breaking space":

` `

Here are some examples of how you might use the non-breaking space:

HTML	Result

Two non-breaking spaces are used to spread the letters in a word farther apart

```
<b><tt>
C   H   E   E  
S   E
</tt></b>
```
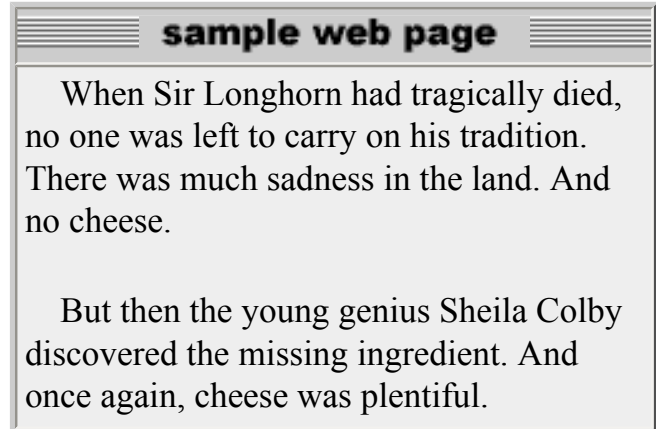

HTML	Result

Two non-breaking spaces are used to indent the first sentence of each paragraph

```
    When Sir Longhorn
had tragically died, no one was left to
carry on his tradition.
There was much sadness
in the land.
And no cheese.
<p>
    But then the young genius
Sheila Colby discovered the missing
ingredient. And once again, cheese
was plentiful.
```
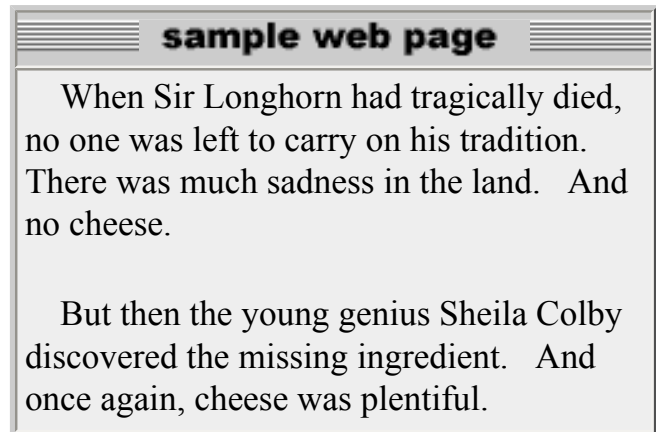
sample web page

> When Sir Longhorn had tragically died, no one was left to carry on his tradition. There was much sadness in the land. And no cheese.
>
> But then the young genius Sheila Colby discovered the missing ingredient. And once again, cheese was plentiful.

HTML	Result

One extra space is used to add an extra space after the end of each sentence.

```
    When Sir Longhorn
had tragically died, no one was left to
carry on his tradition.  
There was much sadness in
the land.  
And no cheese.
<p>
    But then the young genius
Sheila Colby discovered the missing
ingredient.   And once again, cheese
was plentiful.
```

sample web page

> When Sir Longhorn had tragically died, no one was left to carry on his tradition. There was much sadness in the land.   And no cheese.
>
> But then the young genius Sheila Colby discovered the missing ingredient.   And once again, cheese was plentiful.

You may want to experiment with different ways to use the non-breaking space. At this time, we will not modify our HTML documents, but you may, if you wish, add the code for indenting each opening sentence of all paragraphs using two instances of the special code for the non-breaking space.

For more information on paragraph indentation, see Jim Barchuck's Stupid HTML Indent Tricks.

Check Your Work

If your document was different from the sample, review the text you entered in the text editor. Be sure that you have correctly bracketed the escape sequences with the & and ; characters.

More Information

Here are some more special charcters that you may find useful:

Name	HTML	Result
Copyright	©	©
Trademark	®	®
Cent	¢	¢
Degree sign	°	°
double-less than	«	«
micron	µ	µ
Midline dot	·	·
Negation,	¬	¬
continuation line	¶	¶
Paragraph	±	±
Plus/Minus	£	£
British Pound	»	»
double greater	§	§
than	¥	¥
Section		
Yen		

See also the extensive [list of special characters from WebMonkey](#).

Review

Review topics for this lesson:

1. In HTML, what is the correct way to display a German umlaut (ü)?
2. What happens if you do not use an escape sequence for < and >?
3. Why would you need a special escape sequence for the & character?
4. How can you indent paragraphs?

Independent Practice

In your own HTML document, add a foreign word that requires a special accent or a mathematical expression that uses the < or > symbol. Or, add some extra spaces to indent your paragraphs.

Coming Next....

Build a bibliography using a **descriptive list.**

GO TO.... | Lesson Index | previous: "Preformatted Text" | next: "Definition Lists" |

Writing HTML: Lesson 10: Special Characters

11. Definition Lists

Yet another variety of

- **lists**
  - **lists**
    - **lists...**

Objectives

After this lesson you will be able to:

- build a list of items with indented text block definitions
- create a bibliography with a definition list

Lesson

In lesson 6 we saw how to create two types of lists: ordered `<ol>...</ol>` and unordered `<ul>...</ul>` lists. We now introduce a third variety, the **definition list.** Unlike the lists we have seen earlier, the definition list marks its entries not with a bullet marker or a number, but by its pattern of indentation.

The format for a definition list tag is:

```
<dl>
<dt>  title1
<dd>  definition1
<dt>  title2
<dd>  definition2
            :
            :
```
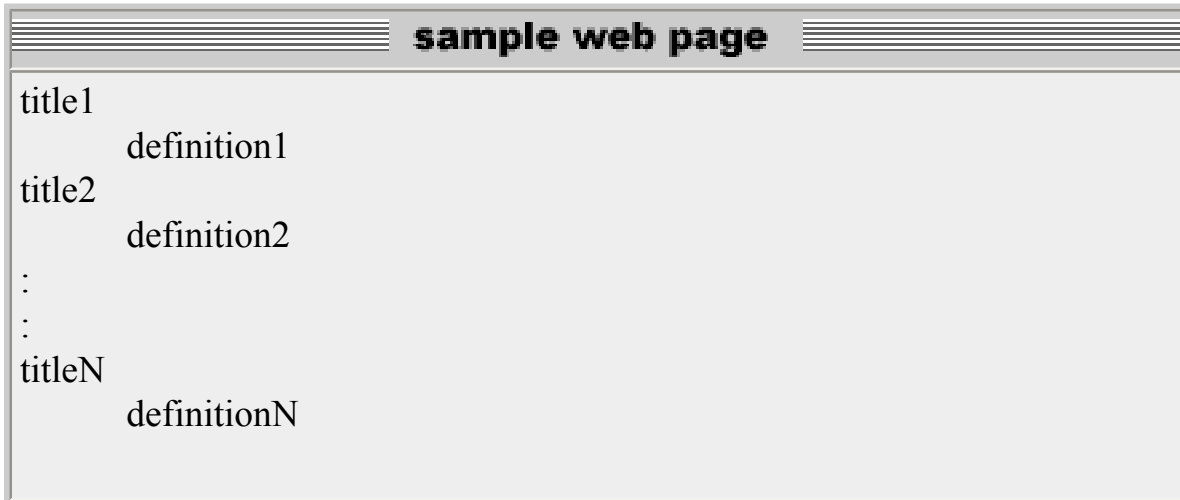
```
              :
<dt>  titleN
<dd>  definitionN
</dl>
```

The **<dl> .... </dl>**; tags include alternating pairs of titles **<dt>** and definitions **<dd>**. A Web browser will typically generate the list with each definition indented to offset it from the title.

Viewed in a web browser, the above example looks like this:

sample web page

title1
> definition1

title2
> definition2

:
:

titleN
> definitionN

The definition list might be used as a glossary , but for our example we will use it to create a short bibliography for our *Volcano Web* lesson:

1. Open the HTML file, **index.html** in your text editor.
2. After the unordered list under the heading **References** enter the following:

```
<h3>Bibliography</h3>
Check your library for these books:
<dl>
<dt>Cas, R.A.F. and Wright, J. V. (1987).
<dd><I>Volcanic Successions: Modern and Ancient.</I>
London: Allen &amp; Unwin.

<dt>La Croix, A. (1904)
<dd><I>La Montagna Pel&eacute;e et ses &Eacute;ruptions.</I>
Paris: Masson

<dt>Lipman, P.W. and Mullineaux (eds). (1981)
<dd><I>The 1980 Eruptions of Mount St. Helens, Washington.</I>
U.S. Geological Survey Professional Paper 1250.
```

`</dl>`

NOTE: We have used some of the Special Characters for the ampersand symbol ("&") in the first reference and for the accent marks in the second reference. If you are unfamiliar with the HTML special characters, see lesson 10

3. **Save** and **Reload** into your web browser.

Check Your Work

Compare your document with a sample of how this document should appear. If your document was different from the sample, review the text you entered in the text editor. Do not forget the **`<dl>...</dl>`** tags that mark the whole list. One common mistake is switching the **`<dt>`** and **`<dd>`** tags.

Review

Review topics for this lesson:

1. How does the definition list differ from the ordered and unordered lists?
2. In what instances might you use a definition list?
3. What is the difference between the **`<dt>`** and the **`<dd>`** tags?

Independent Practice

Use a definition list to add a glossary or bibliography to your own HTML page.

More Information

You can include other ordered/unordered lists within a definition list. For example, let's say we are making a list of the major mineral groups, with a description of their characteristics, and a sublist of minerals in each group and how they are used in society. We wish it to look like (just a few entries are shown):

Oxides

> Combinations of metal ions with Oxygen, comprises the major ores extracted in mining operations
>> ❍ Hematite (iron ore)
>> ❍ Magnetite (iron ore, magnetic mineral)

- ○ Corundum (gemstone, abrasive)

Sulfates

> Metal ions combine with the Sulfate ion (SO4), atomic structure sometimes can allow bonding of water molecules
>
> - ○ Gypsum (plaster)
> - ○ Barite (drilling mud)

The HTML to produce this is:

```
<dl>
<dt><b>Oxides</b>
<dd>Combinations of metal ions with Oxygen, comprises the major ores
extracted in mining operations
    <ul>
    <li>Hematite (iron ore)
    <li>Magnetite (iron ore, magnetic mineral)
    <li>Corundum (gemstone, abrasive)
    </ul>
<dt><b>Sulfates</b>
<dd>Metal ions combines with the Sulfate ion (SO4), atomic structure
sometimes can allow bonding of water molecules
    <ul>
    <li>Gypsum (plaster)
    <li>Barite (drilling mud)
    </ul>
</dl>
```

Coming Next....

Add an informative "signature" with a link for sending e-mail.

GO TO.... | Lesson Index | previous: "Special Characters" | next: "Address Footers and E-Mail Links" |

Writing HTML: Lesson 11: Definition Lists