1.4.1. HTML Elements

Remember the HTML example from the previous page:

```
<html>
<head>
<title>Title of page</title>
</head>
<body>
This is my first homepage. <b>This text is bold</b>
</body>
</html>
```

This is an HTML element:

```
<b>This text is bold</b>
```

The HTML element starts with a **start tag:**
The **content** of the HTML element is: This text is bold
The HTML element ends with an **end tag:**

The purpose of the <b> tag is to define an HTML element that should be displayed as bold.

This is also an HTML element:

```
<body>
This is my first homepage. <b>This text is bold</b>
</body>
```

This HTML element starts with the start tag <body>, and ends with the end tag </body>.

The purpose of the <body> tag is to define the HTML element that contains the body of the HTML document.

1.4.2. Headings

Headings are defined with the <h1> to <h6> tags. <h1> defines the largest heading. <h6> defines the smallest heading.

```
<h1>This is a heading</h1>
<h2>This is a heading</h2>
<h3>This is a heading</h3>
<h4>This is a heading</h4>
<h5>This is a heading</h5>
<h6>This is a heading</h6>
```

HTML automatically adds an extra blank line before and after a heading.

1.4.3. Paragraphs

Paragraphs are defined with the <p> tag.

```
<p>This is a paragraph</p>
<p>This is another paragraph</p>
```

HTML automatically adds an extra blank line before and after a paragraph.

1.4.4. Don't Forget the Closing Tag

You might have noticed that paragraphs can be written without end tags </p>:

```
<p>This is a paragraph
<p>This is another paragraph
```

The example above will work in most browsers, but don't rely on it. Future version of HTML will not allow you to skip ANY end tags.

Closing all HTML elements with an end tag is a future-proof way of writing HTML. It also makes the code easier to understand (read and browse) when you mark both where an element starts and where it ends.

1.4.5. Line Breaks

The <br> tag is used when you want to break a line, but don't want to start a new paragraph. The <br> tag forces a line break wherever you place it.

```
<p>This <br> is a para<br>graph with line breaks</p>
```

The <br> tag is an empty tag. It has no end tag like </br>, since a closing tag doesn't make any sense.

---

 or

More and more often you will see the <br> tag written like this:

Because the <br> tag has no end tag (or closing tag), it breaks one of the rules for future HTML (the XML based XHTML), namely that all elements must be closed.

Writing it like <br /> is a future proof way of closing (or ending) the tag inside the opening tag, accepted by both HTML and XML.

1.4.6. Comments in HTML

The comment tag is used to insert a comment in the HTML source code. A comment will be ignored by the browser. You can use comments to explain your code, which can help you when you edit the source code at a later date.

```
<!-- This is a comment -->
```

Note that you need an exclamation point after the opening bracket, but not before the closing bracket.

1.4.7. HTML Tag Attributes

HTML tags can have attributes. Attributes provide additional information to an HTML element.

Attributes always come in name/value pairs like this: name="value".

Attributes are always specified in the start tag of an HTML element.

Attributes Example 1:

<h1> defines the start of a heading.

<h1 align="center"> has additional information about the alignment.

Attributes Example 2:

<body> defines the body of an HTML document.

<body bgcolor="yellow"> has additional information about the background color.

Attributes Example 3:

<table> defines an HTML table. (You will learn more about HTML tables later)

<table border="1"> has additional information about the border around the table.

Use Lowercase Attributes

Attributes and attribute values are case-insensitive. However, the World Wide Web Consortium (W3C) recommends lowercase attributes/attribute values in their HTML 4 recommendation, and XHTML demands lowercase attributes/attribute values.

1.4.8. Text Formatting Tags

Tag	Description
<b>	Defines bold text
<big>	Defines big text
<em>	Defines emphasized text
<i>	Defines italic text
<small>	Defines small text
<strong>	Defines strong text
<sub>	Defines subscripted text
<sup>	Defines superscripted text
<ins>	Defines inserted text

<del>	Defines deleted text
<s>	Deprecated. Use <del> instead
<strike>	Deprecated. Use <del> instead
<u>	Deprecated. Use styles instead

"Computer Output" Tags

Tag	Description
<code>	Defines computer code text
<kbd>	Defines keyboard text
<samp>	Defines sample computer code
<tt>	Defines teletype text
<var>	Defines a variable
<pre>	Defines preformatted text
<listing>	Deprecated. Use <pre> instead
<plaintext>	Deprecated. Use <pre> instead
<xmp>	Deprecated. Use <pre> instead

Citations, Quotations, and Definition Tags

Tag	Description
<abbr>	Defines an abbreviation
<acronym>	Defines an acronym
<address>	Defines an address element
<bdo>	Defines the text direction
<blockquote>	Defines a long quotation
<q>	Defines a short quotation
<cite>	Defines a citation
<dfn>	Defines a definition term

1.4.9. Character Entities

Some characters have a special meaning in HTML, like the less than sign (<) that defines the start of an HTML tag. If we want the browser to actually display these characters we must insert character entities in the HTML source.

A character entity has three parts: an ampersand (&), an entity name or # and an entity number, and finally a semicolon (;).

To display a less than sign in an HTML document we must write: **< or <**

The advantage of using a name instead of a number is that a name is easier to remember. The disadvantage is that not all browsers support the newest entity names, while the support for entity numbers is very good in almost all browsers.

Note that the entities are case sensitive.

This example lets you experiment with character entities: Character Entities

---

1.4.10. Non-breaking Space

The most common character entity in HTML is the non-breaking space.

Normally HTML will truncate spaces in your text. If you write 10 spaces in your text HTML will remove 9 of them. To add spaces to your text, use the   character entity.

The Most Common Character Entities:

Result	Description	Entity Name	Entity Number
	non-breaking space		

<	less than	<	<
>	greater than	>	>
&	Ampersand	&	&
"	quotation mark	"	"
'	apostrophe	' (does not work in IE)	'

Some Other Commonly Used Character Entities:

Result	Description	Entity Name	Entity Number
¢	Cent	¢	¢
£	Pound	£	£
¥	Yen	¥	¥
€	Euro	€	€
§	Section	§	§
©	Copyright	©	©
®	registered trademark	®	®
×	multiplication	×	×
÷	Division	÷	÷

1.4.11. Anchor Tag and the Href Attribute

HTML uses the <a> (anchor) tag to create a link to another document.

An anchor can point to any resource on the Web: an HTML page, an image, a sound file, a movie, etc.

The syntax of creating an anchor:

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

The <a> tag is used to create an anchor to link from, the href attribute is used to address the document to link to, and the words between the open and close of the anchor tag will be displayed as a hyperlink.

This anchor defines a link to W3Schools:

```
<a href="http://www.w3schools.com/">Visit W3Schools!</a>
```

The line above will look like this in a browser:

Visit W3Schools!

1.4.12. The Target Attribute

With the target attribute, you can define **where** the linked document will be opened.

The line below will open the document in a new browser window:

```
<a href="http://www.w3schools.com/"
Target="_blank">Visit W3Schools!</a>
```

The Anchor Tag and the Name Attribute

The name attribute is used to create a named anchor. When using named anchors we can create links that can jump directly into a specific section on a page, instead of letting the user scroll around to find what he/she is looking for.

Below is the syntax of a named anchor:

```
<a name="label">Text to be displayed</a>
```

The name attribute is used to create a named anchor. The name of the anchor can be any text you care to use.

The line below defines a named anchor:

```
<a name="tips">Useful Tips Section</a>
```

You should notice that a named anchor is not displayed in a special way.

To link directly to the "tips" section, add a # sign and the name of the anchor to the end of a URL, like this:

```
<a href="http://www.w3schools.com/html_links.asp#tips">
Jump to the Useful Tips Section</a>
```

A hyperlink to the Useful Tips Section from WITHIN the file "html_links.asp" will look like this:

```
<a href="#tips">Jump to the Useful Tips Section</a>
```

1.4.13. Frames

With frames, you can display more than one HTML document in the same browser window. Each HTML document is called a frame, and each frame is independent of the others.

The disadvantages of using frames are:

- The web developer must keep track of more HTML documents
- It is difficult to print the entire page