

Chapter 1 Basic HTML

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What is HTML?

HTML is a **markup** language for **describing** web documents (web pages).

- HTML stands for **H**yper **T**ext **M**arkup Language
- A markup language is a set of **markup tags**
- HTML documents are described by **HTML tags**
- Each HTML tag **describes** different document content

From http://www.w3schools.com/html/html_intro.asp

HTML Example:

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<h1>This is a Heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

From <http://www.w3schools.com/html/default.asp>

Example Explained

- The **<!DOCTYPE html>** declaration defines this document to be HTML5
- The text between **<html>** and **</html>** describes an HTML document
- The text between **<head>** and **</head>** provides information about the document
- The text between **<title>** and **</title>** provides a title for the document
- The text between **<body>** and **</body>** describes the visible page content
- The text between **<h1>** and **</h1>** describes a heading
- The text between **<p>** and **</p>** describes a paragraph

From http://www.w3schools.com/html/html_intro.asp

HTML Headings

HTML headings are defined with the **<h1>** to **<h6>** tags.

<h1> defines the most important heading. **<h6>** defines the least important heading:

Example

```
<h1>This is heading 1</h1>
<h2>This is heading 2</h2>
<h3>This is heading 3</h3>
<h4>This is heading 4</h4>
<h5>This is heading 5</h5>
<h6>This is heading 6</h6>
```

From http://www.w3schools.com/html/html_headings.asp

HTML Paragraphs

HTML paragraphs are defined with the **<p>** tag:

Example

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

From http://www.w3schools.com/html/html_basic.asp

HTML Links

HTML links are defined with the **<a>** tag:

Example

```
<a href="http://www.w3schools.com">This is a link</a>
```

From <http://www.w3schools.com/html/html_basic.asp>

HTML Images

HTML images are defined with the **** tag.

The source file (**src**), alternative text (**alt**), and size (**width** and **height**) are provided as attributes:

Example

```


```

From <http://www.w3schools.com/html/html_images.asp>

From <http://www.w3schools.com/html/html_basic.asp>

Using an Image as a Link

To use an image as a link, simply nest the **** tag inside the **<a>** tag:

Example

```
<a href="default.asp">
  
</a>
```

From <http://www.w3schools.com/html/html_images.asp>

HTML Links - Create a Bookmark

HTML bookmarks are used to allow readers to jump to specific parts of a Web page.

Bookmarks can be useful if your webpage is very long.

To make a bookmark, you must first create the bookmark, and then add a link to it.

When the link is clicked, the page will scroll to the location with the bookmark.

Example

First, create a bookmark with the id attribute:

```
<h2 id="tips">Useful Tips Section</h2>
```

Then, add a link to the bookmark ("Useful Tips Section"), from within the same page:

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

From <http://www.w3schools.com/html/html_links.asp>

```
<a href="html_tips.html#tips">Visit the Useful Tips Section</a>
```

From <http://www.w3schools.com/html/html_links.asp>

The title Attribute

Here, a **title** attribute is added to the **<p>** element. The value of the title attribute will be displayed as a tooltip when you mouse over the paragraph:

Example

```
<p title="I'm a tooltip">
```

This is a paragraph.

```
</p>
```

```
<p title='John "ShotGun" Nelson'>
```

```
<p title="John 'ShotGun' Nelson">
```

From <http://www.w3schools.com/html/html_attributes.asp>

Size Attributes

HTML images are defined with the `` tag.

The filename of the source (**src**), and the size of the image (**width** and **height**) are all provided as **attributes**:

Example

```

```

From http://www.w3schools.com/html/html_attributes.asp

HTML Horizontal Rules And Line break

```
<hr>
```

```
<br>
```

The HTML <head> Element

The HTML `<head>` element has nothing to do with HTML headings.

The `<head>` element is a container for metadata. HTML metadata is data about the HTML document. Metadata is not displayed.

The `<head>` element is placed between the `<html>` tag and the `<body>` tag:

Example

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>My First HTML</title>
```

```
<meta charset="UTF-8">
```

```
</head>
```

```
<body>
```

```
.  
.   
.
```

From http://www.w3schools.com/html/html_headings.asp

HTML Tip - How to View HTML Source

Have you ever seen a Web page and wondered "Hey! How did they do that?"

To find out, right-click in the page and select "View Page Source" (in Chrome) or "View Source" (in IE), or similar in another browser. This will open a window containing the HTML code of the page.

From http://www.w3schools.com/html/html_headings.asp

The HTML Style Attribute

HTML Background Color

The **background-color** property defines the background color for an HTML element.

This example sets the background color for a page to powderblue:

Example

```
<body style="background-color:powderblue;">
```

```
<h1>This is a heading</h1>
```

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

```
</body>
```

From http://www.w3schools.com/html/html_styles.asp

HTML Text Color

The **color** property defines the text color for an HTML element:

Example

```
<h1 style="color:blue;">This is a heading</h1>  
<p style="color:red;">This is a paragraph.</p>
```

From http://www.w3schools.com/html/html_styles.asp

HTML Fonts

The **font-family** property defines the font to be used for an HTML element:

Example

```
<h1 style="font-family:verdana;">This is a heading</h1>  
<p style="font-family:courier;">This is a paragraph.</p>
```

From http://www.w3schools.com/html/html_styles.asp

HTML Text Size

The **font-size** property defines the text size for an HTML element:

Example

```
<h1 style="font-size:300%;">This is a heading</h1>  
<p style="font-size:160%;">This is a paragraph.</p>
```

From http://www.w3schools.com/html/html_styles.asp

HTML Text Alignment

The **text-align** property defines the horizontal text alignment for an HTML element:

Example

```
<h1 style="text-align:center;">Centered Heading</h1>  
<p style="text-align:center;">Centered paragraph.</p>
```

From http://www.w3schools.com/html/html_styles.asp

HTML Formatting Elements

In the previous chapter, you learned about the HTML **style attribute**.

HTML also defines special **elements** for defining text with a special **meaning**.

HTML uses elements like **** and **<i>** for formatting output, like **bold** or *italic* text.

Formatting elements were designed to display special types of text:

- **** - Bold text
- **** - Important text
- **<i>** - Italic text
- **** - Emphasized text
- **<mark>** - Marked text
- **<small>** - Small text
- **** - Deleted text
- **<ins>** - Inserted text
- **<sub>** - Subscript text
- **<sup>** - Superscript text

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

```
<strong>This text is strong</strong>
```

```
<i>This text is italic</i>
```

``This text is emphasized``

From http://www.w3schools.com/html/html_formatting.asp

HTML Comment Tags

You can add comments to your HTML source by using the following syntax:

`<!-- Write your comments here -->`

Notice that there is an exclamation point (!) in the opening tag, but not in the closing tag.

Note: Comments are not displayed by the browser, but they can help document your HTML source code.

From http://www.w3schools.com/html/html_comments.asp

HTML Color Names

From http://www.w3schools.com/colors/colors_names.asp

Image Floating

Use the CSS **float** property to let the image float to the right or to the left of a text:

Example

`<p>`

The image will float to the right of the text.`</p>`

`<p>`

The image will float to the left of the text.`</p>`

From http://www.w3schools.com/html/html_images.asp

Image Maps

Use the `<map>` tag to define an image-map. An image-map is an image with clickable areas.

The name attribute of the `<map>` tag is associated with the ``'s `usemap` attribute and creates a relationship between the image and the map.

The `<map>` tag contains a number of `<area>` tags, that defines the clickable areas in the image-map:

Example

``

`<map name="planetmap">
 <area shape="rect" coords="0,0,82,126" alt="Sun" href="sun.htm">
 <area shape="circle" coords="90,58,3" alt="Mercury" href="mercur.htm">
 <area shape="circle" coords="124,58,8" alt="Venus" href="venus.htm">
</map>`

From http://www.w3schools.com/html/html_images.asp

Defining an HTML Table

An HTML table is defined with the `<table>` tag.

Each table row is defined with the `<tr>` tag. A table header is defined with the `<th>` tag. By default, table headings are bold and centered. A table data/cell is defined with the `<td>` tag.

Example

`<table style="width:100%">
 <tr>
 <th>Firstname</th>
 <th>Lastname</th>`

```

<th>Age</th>
</tr>
<tr>
<td>Jill</td>
<td>Smith</td>
<td>50</td>
</tr>
<tr>
<td>Eve</td>
<td>Jackson</td>
<td>94</td>
</tr>
</table>

```

From <http://www.w3schools.com/html/html_tables.asp>

Unordered HTML List

An unordered list starts with the tag. Each list item starts with the tag. The list items will be marked with bullets (small black circles) by default:

Example

```

<ul>
<li>Coffee</li>
<li>Tea</li>
<li>Milk</li>
</ul>

```

From <http://www.w3schools.com/html/html_lists.asp>

Unordered HTML List - Choose List Item Marker

The CSS **list-style-type** property is used to define the style of the list item marker:

| Value | Description |
|--------|---|
| disc | Sets the list item marker to a bullet (default) |
| circle | Sets the list item marker to a circle |
| square | Sets the list item marker to a square |
| none | The list items will not be marked |

Example - Disc

```

<ul style="list-style-type:disc">
<li>Coffee</li>
<li>Tea</li>
<li>Milk</li>
</ul>

```

From <http://www.w3schools.com/html/html_lists.asp>

Ordered HTML List - The Type Attribute

The **type** attribute of the tag, defines the type of the list item marker:

| Type | Description |
|----------|--|
| type="1" | The list items will be numbered with numbers (default) |
| type="A" | The list items will be numbered with uppercase letters |
| type="a" | The list items will be numbered with lowercase letters |
| type="I" | The list items will be numbered with uppercase roman numbers |
| type="i" | The list items will be numbered with lowercase roman numbers |

Numbers:

```

<ol type="1">
<li>Coffee</li>
<li>Tea</li>
<li>Milk</li>

```


From <http://www.w3schools.com/html/html_lists.asp>

HTML Description Lists

HTML also supports description lists.

A description list is a list of terms, with a description of each term.

The <dl> tag defines the description list, the <dt> tag defines the term (name), and the <dd> tag describes each term:

Example

```
<dl>
  <dt>Coffee</dt>
  <dd>- black hot drink</dd>
  <dt>Milk</dt>
  <dd>- white cold drink</dd>
</dl>
```

From <http://www.w3schools.com/html/html_lists.asp>

Nested HTML Lists

List can be nested (lists inside lists):

Example

```
<ul>
  <li>Coffee</li>
  <li>Tea
    <ul>
      <li>Black tea</li>
      <li>Green tea</li>
    </ul>
  </li>
  <li>Milk</li>
</ul>
```

From <http://www.w3schools.com/html/html_lists.asp>

Horizontal Lists

HTML lists can be styled in many different ways with CSS.

One popular way is to style a list horizontally, to create a menu:

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
ul {
  list-style-type: none;
  margin: 0;
  padding: 0;
  overflow: hidden;
  background-color: #333333;
}

li {
  float: left;
}

li a {
  display: block;
  color: white;
  text-align: center;
  padding: 16px;
  text-decoration: none;
}

li a:hover {
```

```
background-color: #111111;
}
</style>
</head>
<body>

<ul>
<li><a href="#home">Home</a></li>
<li><a href="#news">News</a></li>
<li><a href="#contact">Contact</a></li>
<li><a href="#about">About</a></li>
</ul>

</body>
</html>
```

From <http://www.w3schools.com/html/html_lists.asp>