

CHAPTER THREE

Introduction to Hyper Text Markup Language (HTML) (Part One)

- A markup language is a set of markup tags
- A tag added around content are referred to as the markup

HTML markup

- stands for Hyper Text Markup Language
- Is not a programming language, it is a markup language
- Is a language for describing WebPages.
- Is a set of logical codes (markup) that constitute the appearance of a web document and the information it contains.
- These codes are enclosed by less than "<" and greater than ">" brackets these bracketed code of the markup are commonly referred to as tags.
- Most elements have an opening element (tag) and a closing element (tag) Distinguished by the "/" inside the "<" opening bracket.
- E.g. E.g. <p>this text is paragraph</p>
- html codes are not case-sensitive

HTML element

- The first word or character that appears inside the "<" opening bracket is Called the **element**.
- An element is a command that tells the browser to do something.
 - e.g.

Block-level, inline and empty element

- **Block element:** - each block-level element begins on new line and space is also usually add above and below the entire element by default.
e.g. header(h1-h5) and paragraph(p)
- **Inline element:**-do not start new line, they just go with flow.
- **Empty element:**-Empty elements are do not have text content b/c are used to provide a simple instruction

E.g. image element(img)

Line break (br)

HTML Attribute

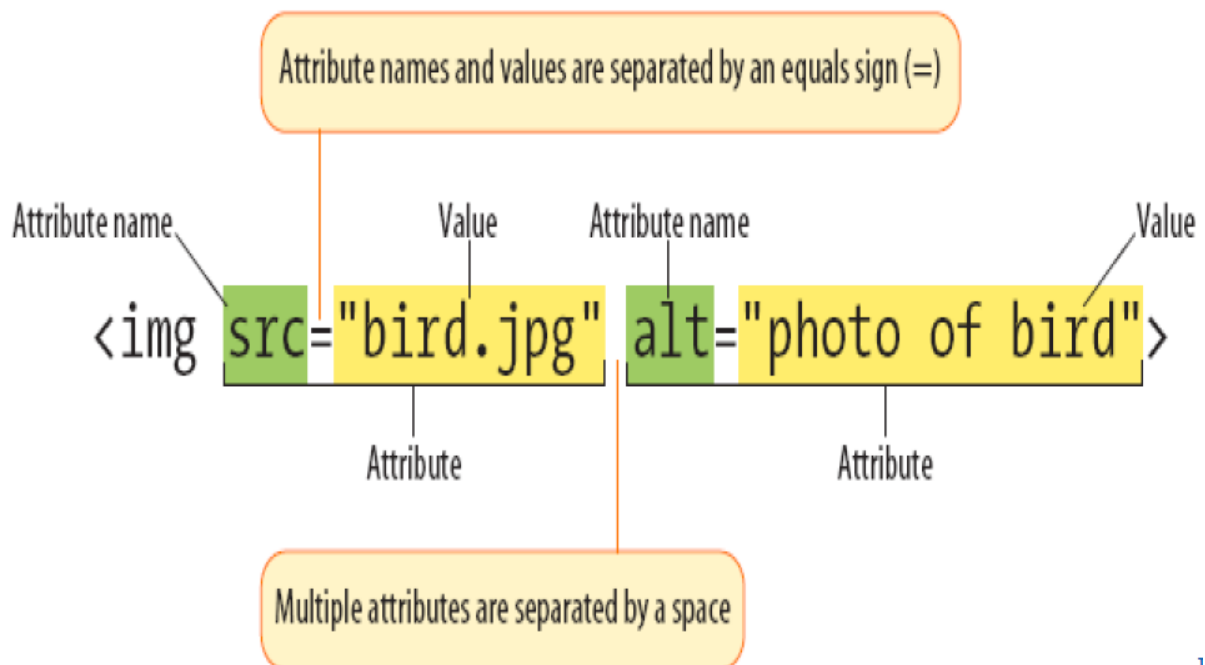
- Attributes are another way of describing the element's properties.
- Attribute are instruction that clarify or modify an element.
- Attributes appear to the right of an element, separated by a Space, and followed by an equal sign. The value of the attribute is contained in quotes.
- The syntax for attribute as follow

`<element attribute name="value"> content </element>`

e.g. `<p align="left">this is paragraph</p>`

Or for empty

`<element attribute name="value"/>`



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Document Structure (*organization of the markup tags*)

- The way a document is marked up with elements and their attributes is according to Document Type Definition (DTD). These are the rules that govern the way in which a document can be marked up.

Basic HTML Document structure

- An element called HTML surrounds the whole document. This element contains two sub-elements, HEAD and BODY. These elements are required to form any HTML document.

```
<html>

<head>
<title>Document Title</title></head>
<body></body>

</html>|
```

Document explanation

- <HTML>The first tag in your HTML document this tag tells your browser that this is the start of HTML document.
 - <HEAD>has sub-elements that define header information; header information is not display in the browser window.
 - <TITLE>tag defines document title. The title of your document is what appears in a web browser's Bookmark list. Your document's title should be as descriptive as possible. Search engines on the Internet use the document's title for indexing purposes. </TITLE>
 - <LINK>indicates a relationship between this document and some other object on the Web. </LINK>
 - <META>provides information such as the page's keywords and description that appears in HTTP headers. </META>
 - <SCRIPT>contains either JAVA Script or VB Script </SCRIPT>
 - <STYLE>contains information used by cascading style sheets </STYLE>
 - </HEAD>
 - <BODY>the remaining HTML elements are contained within these tags. The text between <body>tag is displayed in your browser window.</BODY>
- </HTML> this tag tells your browser that this is the end of the HTML document.

HTML Headings

- Heading are defined with the <h1> to <h6> tags.
- Inside the BODY element, heading elements H1 through H6 are generally used for major divisions of the document.
- Headings are not mandatory.
- H1: should be used as the highest level of heading, H2 as the next highest, and so forth.
- The size of the text surrounded by a heading element varies from very large in an <H1> tag to very small in an <H6> tag.

<pre> <HTML><HEAD> <TITLE>Example Pag</TITLE></HEAD><BODY> <H1>Heading 1</H1> <H2>Heading 2</H2> <H3>Heading 3</H3> <H4>Heading 4</H4> <H5>Heading 5</H5> <H6>Heading 6</H6> </BODY></HTML> </pre>	As displayed by the browser <div> <h1>Heading 1</h1> <h2>Heading 2</h2> <h3>Heading 3</h3> <h4>Heading 4</h4> <h5>Heading 5</h5> <h6>Heading 6</h6> </div>
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Paragraph, <P></P>

- The <p> tag is supported in all major browsers.
- The <p> tag defines a paragraph.
- Browsers automatically add some space (margin) before and after each <p> element.
- Paragraphs allow you to add text to a document

<pre> <HTML> <HEAD> <TITLE>Example Page</TITLE> </HEAD> <BODY> <H1>Heading 1</H1> <P>Paragraph 1, ...</P> <H2>Heading 2</H2> <P>Paragraph 2, ...</P> <H3>Heading 3</H3> <P>Paragraph 3, ...</P> <H4>Heading 4</H4> <P>Paragraph 4, ...</P> <H5>Heading 5</H5> <P>Paragraph 5, ...</P> <H6>Heading 6</H6> <P>Paragraph 6, ...</P> </BODY> </HTML> </pre>	<p>As displayed by the browser.</p> <p>Heading 1</p> <p>Paragraph 1, ...</p> <p>Heading 2</p> <p>Paragraph 2, ...</p> <p>Heading 3</p> <p>Paragraph 3, ...</p> <p>Heading 4</p> <p>Paragraph 4, ...</p> <p>Heading 5</p> <p>Paragraph 5, ...</p> <p>Heading 6</p>
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Break,

- Line breaks allow you to decide where the text will break on a line
- A
 is an Empty Element, meaning that it may contain attributes but it does not contain content. The
 element does not have a closing tag. The closing tag, </BR>, is not required as this element marks a position and does not contain content

<pre> <HTML> <HEAD> <TITLE>Example Page</TITLE> </HEAD> <BODY> <H1>Heading 1</H1> <P>Paragraph 1,
 Line 2
 Line 3
 ... </P> <H1>Heading 2</H1> <P>Paragraph 2,... </BODY> </HTML> </pre>	<p>As displayed by the browser.</p> <h1>Heading 1</h1> <p>Paragraph 1, Line 2 Line 3 ...</p> <h2>Heading 2</h2> <p>Paragraph 2, ...</p>
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Horizontal Rule, <HR>

- The <HR> element causes the browser to display a horizontal line (rule) in your document. This element does not use a closing tag, </HR>. Simply type <HR> to insert a horizontal line (rule) element into your document.

<pre> <HTML><HEAD><TITLE>Example Page</TITLE></HEAD> <BODY> <H1>Heading 1</H1> <P>Paragraph 1,
 Line 2
<HR>Line 3
... </P> </pre>	<p>As displayed by the browser.</p> <h1>Heading 1</h1> <p>Paragraph 1, Line 2 Line 3 ...</p> <h2>Heading 2</h2> <p>Paragraph 2, ...</p>
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Formatting Text

Character Formatting Elements

- HTML defines a lot of elements for formatting output, like bold or italic some of the element are listed below.

Font element

- Used to modify the text **size** using size attribute
- The size attribute can be set as absolute value from 1 to 7 or as a relative value using the “+” or “-” sign.

e.g. `Two sizes bigger`

- Normal text is size 3.
- Used to modify the text color using **color** attribute
E.g. `this text has color`

Center text-the `<CENTER>` element

`<CENTER>...</CENTER>` element Will center elements.

Bold Text - The `` Element:

Anything that appears in a `...` element is displayed in bold, like the word bold here:

e.g. `<p>The following word uses a bold typeface.</p>`

This will produce following result:

The following word uses a **bold** typeface.

- Another element that used to make the text bold is `` element.

` STRONG ` browsers display this as bold.

Italic Text - The `<i>` Element:

Anything that appears in a `<i>...</i>` element is displayed in italicized, like the word italicized here:

e.g. `<p>The following word uses a <i>italicized</i> typeface.</p>`

This will produce following result:

The following word uses *italicized* typeface

`` element:

Another element used to make text italicized

`` Emphasis `` browsers usually display this as italics.

`<CITE>` element

`<CITE>` Citation `</CITE>` represents a document citation.

e.g. `<CITE>` Citation `</CITE>`

This will produce the following result

Citation

Underlined Text - The `<u>` Element:

Anything that appears in a `<u>...</u>` element is displayed with underline, like the word underlined here:

`<p>`The following word uses a `<u>underlined</u>` typeface.`</p>`

This will produce following result:

The following word uses underlined typeface.

Strike Text - The `<strike>` Element:

Anything that appears in a `<strike>...</strike>` element is displayed with strikethrough, which is a thin line through the text:

e.g. `<p>`The following word uses a `<strike>strikethrough</strike>` typeface.`</p>`

This will produce following result:

The following word uses a ~~strikethrough~~ typeface.

Superscript Text - The `<sup>` Element:

The content of a `<sup>` element is written in superscript.

e.g. `<p>`The following word uses a `^{superscript}` typeface.`</p>`

This will produce the following result

The following word uses a ^{superscript} typeface

Subscript Text - The `<sub>` Element:

The content of a `<sub>` element is written in subscript;

e.g. `<p>`The following word uses a `_{subscript}` typeface.`</p>`

This produces the following result

The following word uses a_{subscript}typeface.

Larger Text - The <big> Element:

The content of the <big> element is displayed one font size larger than the rest of the text surrounding it.

e.g. <p>The following word uses a <big>big</big> typeface.</p>

This will produce the following result:-the following word uses a bigtypeface

Smaller Text - The <small> Element:

The content of the <small> element is displayed one font size smaller than the rest of the text surrounding it.

e.g.<p>The following word uses a <small>small</small> typeface.</p>

This will produce the following result: -The following word uses asmall typeface

<PRE> element

<PRE> Preformatted </PRE>>Text enclosed by PRE tags is displayed in a monospaced font. Spaces and line breaks are supported without additional elements or special characters.

<CENTER>element

<CENTER></CENTER> Will center elements.

<BLOCKQUOTE>element

<blockquote>...</blockquote>

- The <blockquote> tag specifies a section that is quoted from another source.
- This element can also contain most other formatting elements such as Headings, paragraphs, tables, etc.

<ADDRESS>

The address element specifies information such as authorship and contact details for the current document. There is no support for an alignmentattribute with the <ADDRESS> element. You will need to use some other method if you want the

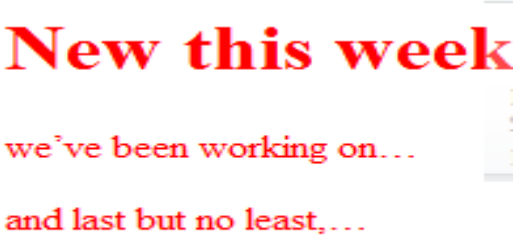
address displayed differently from left aligned.

</ADDRESS>

The div element

- **div** used to brake a page into sections for context, structure, and lay out purposes.
- The div (short for division) is used to indicate a generic block-level element
- The HTML `<div>` tag is used for defining a section of your document.
- With the div tag, you can group large sections of HTML elements together and format them with CSS.

e.g a heading and several paragraph are enclose in a div and identified as the “news” section.

<pre><html> <head> <title>Moby-Dick</title> </head> <body> <div id="news"> <h1>New this week</h1> <p>we've been working on...</p> <p>and last but no least,...</p> </div></body></html></pre>	<p>This produce the following result</p> 
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Character entity

- Some characters have a special meaning in HTML, like the less than sign (`<`) that defines the start of an HTML tag .if want the browser to actually display these characters we must insert character entities in the HTML source.
- A character entity has three parts: anampersand (`&`), an entity name or a # and an entity number and finally a semicolon (`;`)

The most common character entity

Result	Description	Entity name	Entity number
	Non-braking space	 	
<	Less than	<	<
>	Greater than	>	>
"	Quotation mark	"	"
'	Apostrophe	'	'
¢	Cent	¢	¢
£	Pound	£	£
¥	Yen	¥	¥
©	Copyright	©	©
®	Registered trademark	®	®
×	Multiplacation	×	×
÷	Division	÷	õ