



LIS 161

Module 1: Basic HTML

Outline

- HTML
- CSS
- JavaScript

WWW

- ◉ commonly abbreviated as "**the Web**"
- ◉ is a system of interlinked hypertext documents accessed via the Internet.
- ◉ a Web browser is used to view Web pages that may contain text, images, videos, and other multimedia and navigate between them using hyperlinks.
- ◉ Sir Tim Berners-Lee - proposed building a "web of nodes" storing "hypertext pages" viewed by "browsers" on a network.
- ◉ websites were created, around the world, adding international standards for domain names & the HTML language.

INTRODUCTION TO HTML

What is an HTML File?

- HTML stands for Hyper Text Markup Language
- An HTML file is a text file containing small markup tags
- The markup tags tell the Web browser how to display the page
- An HTML file must have an htm or html file extension
- An HTML file can be created using a simple text editor

EXERCISE 1

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

Please do exercise 1

HTML ELEMENTS

HTML documents are text files made up of HTML elements. Elements are enclosed with start tag and end tag.

This is an HTML element

```
<title>This is a page title</title>
```

This is also an HTML element

```
<body>  
This is my first homepage.  
</body>
```

Start Tag	Purpose
<html>	Defines a html document
<body>	Defines the document's body; visible page content
<h1>-<h6>	Defines heading 1 to heading 6
<p>	Defines a paragraph
 	Inserts a single line break
<hr>	Defines a horizontal rule
<!-->	Defines a comment in the HTML source code

Head Tag

`<head></head>`

- Contains information about the HTML document
- Tags like `<title>`, `<meta>`, `<script>` and `<link>` are written inside the `<head>` tag

Title Tag

`<title></title>`

- Displays the page title

Body Tag

`<body></body>`

- Contains all the contents of the html page

Headings

- `<h1></h1>`
- `<h2></h2>`
- `<h3></h3>`
- `<h4></h4>`
- `<h5></h5>`
- `<h6></h6>`

Paragraphs, Link, Image, Break

- `<p>This is a paragraph</p>`
- `This is a link`
- ``
- `
` or `
`

- HTML ignores white space!
- Note that your browser simply ignores your formatting!
- Use heading tags only for headings. Don't use them just to make something bold. Use other tags for that.

Tag behavior can be modified using **attributes**

- Attributes provide additional information about the elements
- Always specified in the start tag
- Comes in a key/value pair

Example:

```
<h1 align="center">This is heading 1</h1>
```

```
<body bgcolor="rgb(0,255,0)">
```

```
<h2>Look: Colored Background!</h2>
```

```
</body>
```

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

Attributes

```
<h1 align="center">This is heading 1</h1>
```

h1 – an element for heading

align = an attribute of an element

“center” = value of the attribute

= closed by quotation marks

Other attributes for align

“right” “justified” – some browser would not

“left” implement

Attributes

```
<body bgcolor="rgb(0,255,0)">  
<h2>Look: Colored Background!</h2>  
</body>
```

body – an element for body

bgcolor = an attribute of an element

“rgb(0,255,0)” = value of an attribute

Other attributes for bgcolor

Attributes

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

a – defines the element for links

href = defines an attribute to specified address

<http://www.w3schools.com> = is the value for the attribute

Load htmlex1.html for sample code
Do Skillset 1.

HTML TEXT FORMATTING

Start Tag	Purpose
<code></code>	Defines bold text
<code><big></code>	Defines big text
<code></code>	Defines emphasized text
<code><i></code>	Defines italic text
<code><small></code>	Defines small text
<code></code>	Defines strong text
<code><sub></code>	Defines subscripted text
<code><sup></code>	Defines superscripted text
<code><ins></code>	Defines inserted text
<code></code>	Defines deleted text
<code><pre></code>	Defines preformatted text



Please load `htmlex2.html` for sample code.

Do Skillset 2.

HTML CHARACTER ENTITIES

- Some characters like the < character, have a special meaning in HTML, and therefore cannot be used in the text.
- To display a less than sign (<) in HTML, we have to use a character entity.

Result	Description	Entity Name	Entity Number
	non-breaking space	 	
<	less than	<	<
>	greater than	>	>
&	ampersand	&	&
"	quotation mark	"	"
'	apostrophe		'
¢	cent	¢	¢
£	pound	£	£
¥	yen	¥	¥
§	section	§	§
©	copyright	©	©
®	registered trademark	®	®
×	multiplication	×	×
÷	division	÷	÷

Here is a usage example:

```
<html>  
<body>  
<p>This is a character entity:  
&#169;</p>  
</body>  
</html>
```

HTML LINKS

The 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:
 - `Text to be displayed`

Sample HTML LINKS

```
<html>
```

```
<body>
```

```
<p>
```

```
<a href="http://www.engg.upd.edu.ph/"> This text</a>
```

is a link to a page on the World Wide Web.

```
</p>
```

```
</body>
```

```
</html>
```

The Anchor tag and the Target Attribute

- With the target attribute, you can define where the linked document will be opened. (*new window, different frame, etc...*)
- Please load `htmlex1.html`

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 specified section on a page, instead of letting the user scroll around to find what he/she is looking for.

`There is a link at the bottom of the page!`

`Go to top`

• The Anchor tag and the Mailto Attribute

- The mailto attribute is used to create a link that opens your default mail client (*outlook, opera, etc...*) See htmlex4_sendmailtag.html.

<p>

This is a mail link:

<ahref="

<mailto:someone@engg.upd.edu.ph?Subject=Hello%20again>">

Send Mail

</p>

<p>

Note: Spaces between words should be replaced by %20 to ensure that the browser will display your text properly.
</p>

HTML FRAMES

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

The Frameset Tag

- The <frameset> tag defines how to divide the window into frames
- Each frameset defines a set of rows **or** columns
- The values of the rows/columns indicate the amount of screen area each row/column will occupy
- The <frame> tag defines what HTML document to put into each frame.

The Frame Tag

```
<html>
```

```
<frameset cols="25%,50%,25%">
```

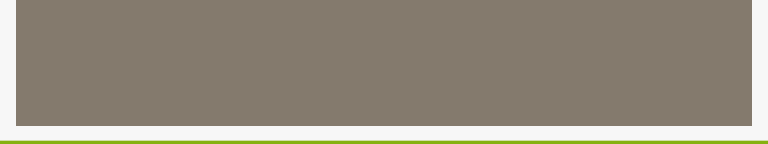
```
  <frame src="http://www.yahoo.com">
```

```
  <frame src="http://www.google.com">
```

```
  <frame src="1.html">
```

```
</frameset>
```

```
</html>
```



Please load `htmlex5_frameset.html` for
sample code.

Do Skillset 2.

HTML TABLES

Tables

- Tables are defined with the `<table>` tag.
- A table is divided into rows (with the `<tr>` tag), and each row is divided into data cells (with the `<td>` tag).
- The letters td stands for "table data," which is the content of a data cell. A data cell can contain text, images, lists, paragraphs, forms, horizontal rules, tables, etc.
- You can place headings for each row or column using the `<th>` tag
- You can name your table by using the `<caption>` tag

HTML TABLES

```
<table border="1">
  <tr>
    <th>Header 1</th>
    <th>Header 2</th>
  </tr>
  <tr>
    <td>row 1, cell 1</td>
    <td>row 1, cell 2</td>
  </tr>
  <tr>
    <td>row 2, cell 1</td>
    <td>row 2, cell 2</td>
  </tr>
</table>
```

- Please load `htmlex6.html` for sample code.

Tables and the Border Attribute

- If you do not specify a border attribute the table will be displayed without any borders. Sometimes this can be useful, but most of the time, you want the borders to show.
- To display a table with borders, you will have to use the border attribute:

Tables and the cellpadding and cellspacing Attribute

- The cellpadding attribute creates more whitespace between the cell content and its borders
 - Example usage is:
 - `<table border="1" cellpadding="10">`
- The cellspacing attribute increases the distance between cells.
 - Example usage is:
 - `<table border="1" cellspacing="10">`
- See [htmlex7_cell_padding.html](#) & [htmlex7_cell_spacing.html](#)

The Colspan and Rowspan Attribute

- The colspan (column span) and rowspan attributes can be used with the <th> and <tr> tags.
- They are used when the contents of a cell in table require more than one cell.
- Please load `htmlex6_table_col_row_spans.html` for sample code.

◉ The Align Attribute

- ◉ The align attribute can be used with the <th> and <td> tags.
- ◉ You can align the table cell's contents by specifying the align value to be "left", "center", or "right"
 - ◉ Example usage is:
 - ◉ <td align="left">Clothes</td>
 - ◉ <th align="right">Sum</th>

See [htmlex8_align.html](#)

Do Skillset 4.

HTML LISTS

Unordered Lists

- An unordered list is a list of items. The list items are marked with bullets (typically small black circles). An unordered list starts with the `` tag. Each list item starts with the `` tag.
- Inside a list item you can put paragraphs, line breaks, images, links, other lists, etc.

```
<ul>
```

```
<li>Meat</li>
```

```
<li>Fish</li>
```

```
</ul>
```

Ordered Lists

- An ordered list is also a list of items. The list items are marked with numbers.
- An ordered list starts with the `` tag. Each list item starts with the `` tag.
- Inside a list item you can put paragraphs, line breaks, images, links, other lists, etc.

```
<ol>
```

```
<li>Meat</li>
```

```
<li>Fish</li>
```

```
</ol>
```

See [htmlex9_list.html](#)

Definition Lists

- A definition list is **not** a list of items. This is a list of terms and explanation of the terms.
- A definition list starts with the `<dl>` tag. Each definition-list term starts with the `<dt>` tag. Each definition-list definition starts with the `<dd>` tag.
- Inside a definition-list definition (the `<dd>` tag) you can put paragraphs, line breaks, images, links, other lists, etc.

Definition Lists

```
<dl>
```

```
<dt>Coffee</dt>
```

```
<dd>Black hot drink</dd>
```

```
<dt>Milk</dt>
```

```
<dd>White cold drink</dd>
```

```
</dl>
```

Please do the exercise below

Numbered list:

1. Apples
2. Bananas
3. Lemons
4. Oranges

Letters list:

- A. Apples
- B. Bananas
- C. Lemons
- D. Oranges

Lowercase letters list:

- a. Apples
- b. Bananas
- c. Lemons
- d. Oranges

Roman numbers list:

- I. Apples
- II. Bananas
- III. Lemons
- IV. Oranges

Lowercase Roman numbers list:

- i. Apples
- ii. Bananas
- iii. Lemons
- iv. Oranges

Disc bullets list:

- Apples
- Bananas
- Lemons
- Oranges

Circle bullets list:

- Apples
- Bananas
- Lemons
- Oranges

Square bullets list:

- Apples
- Bananas
- Lemons
- Oranges