Course: SW417– Web Engineering			
Instructor	Mr. Mansoor Samo	**Practical/Lab No.**	01
Date		**CLOs**	CLO-3
Signature		**Assessment Score**	1 Mark

Topic	**To understand HTML basics for developing web applications**
Objectives	- To become familiar with HTML Basics, Lists, Links

Lab Discussion: Theoretical concepts and Procedural steps

HTML (Hypertext Markup Language)

- It is a markup language.
- Case insensitive language.
- Defines the structure of your content.
- Markup language, a standardized set of notations used to annotate a plain-text document's content to give information regarding the structure of the text or instructions for how it is to be displayed
- Hypertext is text which is not constrained to be linear. Hypertext is text which contains links to other texts.
- Html is translated by means of a web browser on the client side

Basic Terminology

HTML ELEMENTS/ TAGS/ MARKUPS: Html elements or tags provide instructions for how information will be processed or displayed. Enclosed in <>

DELIMITERS (<, >, /): Delimiters surround the tag and inform the parser that it should read the enclosed information as an HTML element.

ATTRIBUTE: Attributes contain extra information about the element that you don't want to appear in the actual content. The value for the attribute is enclosed in quotation marks.

Anatomy of an HTML document

```
<!DOCTYPE html>                The <!DOCTYPE html> declaration defines this document to
                               be HTML5
<html>
                               <html>..</html>: These tags enclose the entire HTML
    <head>                     document & tell the browser that it is reading an
                               HTML document
        <title></title>
                               <head>..</head>:    The    HEAD    element    contains
    </head>                    information about the document.
    <body>
                               <body>..</body>: It encloses the body (text, images,
    </body>                    tags, links) of the HTML document. The BODY element
                               contains the information in the document.
</html>
                               The <title> element specifies a title for the
                               document
```

Simple HTML Program:

```
<!DOCTYPE html>
<html>
    <head>
        <title>Hello, world</title>
    </head>
    <body>
        Hello, world
    </body>
</html>
```

Tag Types

Paired tags: They require a starting and an ending tag e.g: <html></html>

Unpaired/Singular/Empty tags: They require only a starting tag e.g.:
 <input/> or simply

 <input>

Some Important tags

HTML Headings

Heading elements allow you to specify that certain parts of your content are headings
— or subheadings. In the same way that a book has the main title, chapter titles and
subtitles, an HTML document can too. HTML contains 6 heading levels.

Sample code:

```
<h1>This is a Main Heading</h1>
<h2>This is a Level 2 Heading</h2>
<h3>This is a Level 3 Heading</h3>
<h4>This is a Level 4 Heading</h4>
<h5>This is a Level 5 Heading</h5>
<h6>This is a Level 6 Heading</h6>
```

This is a Main Heading

This is a Level 2 Heading

This is a Level 3 Heading

This is a Level 4 Heading

This is a Level 5 Heading

This is a Level 6 Heading

Paragraphs: As explained above, <p> elements are for containing paragraphs of text; you'll use these frequently when marking up regular text content

<q>: All the text within this tag is enclosed in quotation marks in the output.

**
:** break inserts new line

<center>..</center>: centers your text

Links

Anchor tag <a>..: A web link can be created in html using the anchor tag.

ATTRIBUTES:

- **TITLE**: It specifies a tooltip text for the anchor tag.

- **HREF**: The HREF attribute creates a link to another document or anchor and leads the user to the address indicated in its URL.
- **e.g: Google it**
- **MAIL TO ATTRIBUTE:** The MAILTO attribute is used to insert an e-mail link into the document. MAILTO is useful as it enables us to create a link on your home page so that readers can send you comments.

  - **EXAMPLE:**

  - **<a HREF= "MAILTO:webteam@literacy.kent.edu"> webteam@literacy.kent.edu**

- **Download using anchor tag:** The anchor tag can also be used to create a download link as:

  - ** Download ** the above statement downloads the file at the url with the name file.txt onto our computer when Download link is clicked.

Whitespace in HTML

- No matter how much whitespace you use (which can include space characters, but also line breaks), the HTML parser reduces each one down to a single space when rendering the code.
- Increases readability of code (nice formatting)

Entity references: Including special characters in HTML

- In HTML, the characters <, > are special characters.

- They are parts of the HTML syntax itself, so how do you include one of these characters in your text.
- We have to use character references — special codes that represent characters, and can be used in these exact circumstances.

Literal character	Character reference equivalent
<	<
>	>
"	"
'	'
&	&

Example: **output**: "In HTML, you define a paragraph using the <p> element."

Without entity references

Code: <p>In HTML, you define a paragraph using the <p> element.</p>

With entity references

Code: <p>In HTML, you define a paragraph using the <p> element.</p>

HTML comments

To turn a section of content inside your HTML file into a comment, you need to wrap it in the special markers <!-- and -->
Example

<p>I'm not inside a comment</p>

<!-- <p>I am!</p> -->

Lists

Unordered: Unordered lists are used to mark up lists of items for which the order of the items doesn't matter — let's take a shopping list e.g eggs, bread, butter etc Every unordered list starts off with a <ul> element — this wraps around all the list items and the last step is to wrap each list item in a <li> (list item) element.

Ordered: Ordered lists are lists in which the order of the items does matter — let's take a set of directions. The markup structure is the same as for

```
<ul>
    <li>milk</li>
    <li>eggs</li>
</ul>
```

unordered lists, except that
you have to wrap the list items in an <ol>.

```
<ol>
    <li>Drive to the end of the road</li>
    <li>Turn right</li>
    <li>Go straight across the first two roundabouts</li>
</ol>
```

HTML 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.

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

Lab Tasks

1. Create a simple webpage displaying your entire bio data including an image and an anchor tag for your email.

2. Create a simple webpage displaying this output.
   Note: This example is of a web page about film. The **<h1>** element is used

with an **id** attribute at the top of the page so that a link can be added to take readers from the bottom of the page to the top. There is an email link to allow readers to contact the author of the web page. There are also a number of links to qualified URLs. These link to various film festivals. Below this list is a link to a **relative URL** which is an "about" page that lives in the same directory. Furthermore, you can make variations like use your own content or give it a much better structure).

Film Folk

Festival Diary

Here are some of the film festivals we will be attending this year. Please contact us if you would like more information.

January

Sundance Film Festival
Park City, Utah, USA
20 - 30 January 2011

February

Tropfest
Sydney, Australia
20 February 2011

About Film Folk

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