2022

WEB SYSTEM LAB

LECTURE#01

HTML-Part 1

Collage of Computers & Information Technology

Hadhramout University

Mohammed L. Bazanbour

Lab Instructor

Lab instructions

- Students should be regular and come prepared for the lab practice.
- In case a student misses a class, it is his/her responsibility to complete and understand the missed lab exercises.
- They should implement the given exercises individually OR in groups depend on exercise.
- Use meaningful names.
- Once the exercise(s) get executed, they should show the program and results to the instructors.
- Questions for lab tests and exam need not necessarily be limited to the questions in the manual, but could involve some variations and / or combinations of the questions

General Information:

- HTML: Hyper Text Markup Language use tags to identify content. HTML5 is a markup language that specifies the structure and content of documents that are displayed in web browsers.

- HTML Page file end with ".htm" or ".html"

- Modern Web Design:

- HTML: for defining the Structure of website.
- CSS: for Presentation and styling the web pages (colors, decorations etc.).
- JavaScript: for Behavior (Animation, movements or transitions).
- PHP or Similar programming language: Backend for building the website's logic.
- MySQL: DB Queries>
- CMS: Content Management Systems (Joomla, WordPress, Blogger….).

- Main HTML tags:

- Html tags | basic tags which defines the page as html script & the code should be written between.

```
<html>   </html>
```

- HTML Main Sections: head & body:

1- Head: contains all non-visual elements (title , meta data , embedded and external style , fonts …) .

```
<html>
<head></head>
<body></body>
</html>
```

<meta charset="utf-8">
   Meta charset specifies the character encoding of the website.

<meta name="application-name" content="Application Name">
   Specifies an "app name" so that the website can be used like a web-app this name appears underneath the app icon on mobile devices when the user selects the "Add to Home Screen" function in their web browser.

<title>Page Title</title>
   Defines the title of the webpage, and acts as the title of the search result that's displayed in search engines such as Google, Bing and Yahoo. I'd recommend using no more than 70 characters, as anything over will be cut-off

<meta name="description" content="Page description">
   A short snippet of text describing what the webpage is about — this snippet appears as the description of the webpage in search results, and should be no more than 150 characters. Like with the title, characters over 150 will be cut-off.

<meta name="viewport" content="width=device-width, initial-scale=1">
   Known as the responsive design meta tag, Meta viewport describes how the layout and content adapts to the mobile viewport — the content= attribute accepts many different values, however the snippet above is relatively standard.

```
<html>
<head>
<title>Web Systems</title>
<meta name="description" content="This is Web Systems Website">
<meta name="keywords" content="html,css,web,system">
<meta name="author" content="Ahmed Mohmmed">
<meta charset="utf-8">
</head>
</html>
```

Body: contains all of the visual elements. For example:

- Headings: which used for headlines in webpages and they are 6:

  <h1> </h1> - <h2> </h2> - <h3> </h3> - <h4> </h4> - <h5> </h5> - <h6> </h6> H1=largest, H6=smallest.

- Regular text elements: which used to display normal text in webpages:

  - <p> </p>: display a paragraph and ignoring the white spaces and new lines between the words but it's display property-block.
  - : displays a paragraph exactly such as <p></p> tag but it's display property-inline>
  - <pre> </pre>: display a paragraph in space-sensitive form {it displays the text as you type it} & it's display property-block.

- Quotation: used to display Quote text inspired by other writers:
  - <q> </q>

-
: Special tag used to insert a line break.

- <hr>: Special tag used to insert horizontal line>.

- Lists: Element used to display a set of items within one element and it has two types:
  - Unordered list: <ul> : used to display items with no numbering necessity.

```
<ul style="list-style-type: square">
<li>HTML</li>
<li>CSS</li>
<li>JavaScript</li>
</ul>
```

  - Ordered list: <ol type =? start=?> used to display items ordered respectively.
    Type: determine the numbering type of the list.
    Start: determine the starting number of the list numbering.

```
<ol type="1" start="4">
<li>HTML</li>
<li>CSS</li>
<li>JavaScript</li>
</ol>
```

  - Descriptive/definition list: <dl> </dl>
    <dt>: Precedes each definition term

    <dd>: (description / definition
    details) Precedes each definition / description

```
<dl>
<dt>HTML</dt>
<dd>first language</dd>
<dt>CSS</dt>
<dd>second
language</dd>
</dl>
```

- `<a href="xx">yy</a>` : Creates a hyperlink to a new page in the same website , to another section in the same page ,or to any other website (xx: hyperlink reference , yy : clickable text) .

```
<a href="www.hotmail.com">Hotmail</a>
you will go to Hotmail website when click on Hotmail word
<a href="index2.html">index2</a>
you will go to index2 page that exist in the same website you are in when
click on index2 word
```

- `<img src="URL" alt="text" />` : Adds image to the web page:

    - Possible values of the URL of the image.:

        □ points to another web site (like src="http://www.ex.com/image.gif")

        □ points to a file within a web site (like src="image.gif")

    - The **alt** attribute provides an alternate text for an image, if the user for some reason cannot view it (because of slow connection, an error in the src attribute, or if the user uses a screen reader).

- **Text Formatting Tags**
    - `<b> </b>` : Creates bold text (should use <strong> instead)
    - `<strong> </strong>` : Emphasizes a word (usually processed in bold)
    - `<i> </i>` : Creates italicized text (should use <em> instead)
    - `<em> </em>` : Emphasizes a word (usually processed in italics)
    - `<u></u>` : identify text that should be underlined
    - `<small></small>` : makes the text font size one size **smaller**
    - `<big></big>` :makes the text font size one size **bigger**
    - `<mark></mark>` : highlight text
    - `<del> </del>` : identify text that has been deleted by strike a line through deleted text
    - `<sub></sub>` : defines subscript text. Subscript text appears half a character below the normal line, and is sometimes rendered in a smaller font

- :defines superscript text. Superscript text appears half a character above the normal line, and is sometimes rendered in a smaller font

Example:

```
<p>This <b>Website</b> for Web <small>systems</small> <br><u>Course</u> that
<big>teached</big> for <del><mark><em>level 2</em></mark></del></p>
<p>a<sub>4</sub><sup>3</sup></p>
```

Comments: use CTRL + ? to comment html tags.

```
<!—put your comment her->
```