



DHA SUFFA UNIVERSITY

Department of Computer Science

CS-1201L

Introduction to Information and Communication Technology Fall 2019

LAB 03 – Introduction to HTML

OBJECTIVE(S)

- Learn about HTML Basic Tags
- Learn about HTML Lists
- Learn about HTML Tables

HTML

HTML stands for Hyper Text Markup Language which is used for creating web pages and web applications.

HyperText: It simply means "Text within Text". When a text has a link within it, is a hypertext. Whenever you click on a link which brings you to a new webpage, you have clicked on a hypertext. It is a way to link two or more web pages (HTML documents) with each other.

Markup language: A markup language is a computer language that is used to apply layout and formatting conventions to a text document. It makes text more interactive and dynamic. It can turn text into images, tables, links, etc.

HTML Text Editors

- An HTML file is a text file, so to create an HTML file we can use any text editors.
- Text editors are the programs which allow editing in a written text, hence to create a web page we need to write our code in some text editor.
- There are various types of text editors available, but for a beginner, the best text editor is Notepad.
- You need to save the HTML file with .htm or .html extension.

Building blocks of HTML

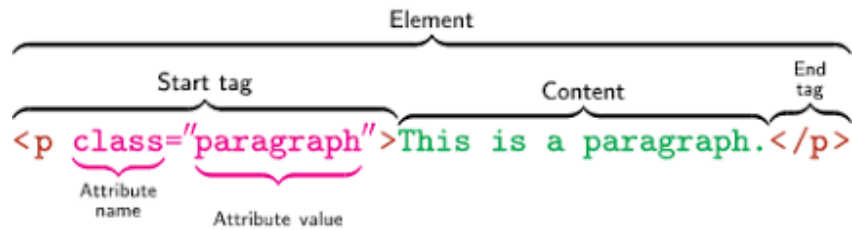
Tag: An HTML tag surrounds the content and apply meaning to it. It is written in <> brackets.

➤ <tag> content </tag>

Attribute: An attribute in HTML provides extra information about the element, and it is applied within the start tag. It contains two fields: name and value.

➤ <tag attribute_name= " attribute_value"> content </tag>

Element: An HTML element is an individual component of an HTML file. Everything written within tags are termed as HTML elements.



HTML Basic Tags

HTML `<!DOCTYPE>` Tag

HTML `<!DOCTYPE>` tag is used to inform the browser about the version of HTML used in the document. It is called as the Document Type Declaration (DTD). DTD defines the rules for the markup languages so that the browsers recognize the content correctly.

➤ `<!DOCTYPE html>`

HTML `<html>` Tag

The `<html>` tag represents root of an HTML document hence also called as root element. It is a container of all elements such as `<body>`, `<head>` and each element which appears in an HTML document. It tells the browser that the document is an HTML document.

➤ `<html> content </html>`

HTML `<head>` Tag

The HTML `<head>` tag is used as a container for metadata (data about data). It is used between `<html>` tag and `<body>` tag. Following is a list of tags used in metadata:

- `<title>`
- `<style>`
- `<meta>`
- `<link>`
- `<script>`
- `<base>`

HTML `<title>` Tag

The HTML `<title>` tag is used to define the title of the document. It must be placed between `<head>` element, and one document can only have one title element.

➤ `<head>`
 `<title> content </title>`
 `</head>`

HTML <body> Tag

HTML <body> defines the main content of an HTML document which displays on the browser. It can contain text content, paragraphs, headings, images, tables, links, videos, etc. The <body> tag should be placed between </head> and </html> tags. This tag is required for every HTML document and should only use once in the whole HTML document.

- <body> content </body>

HTML Heading Tags

HTML has six levels/sizes of headings, which are defined with the <h1> to <h6> tags, from highest level h1 (main heading) to the least level h6 (least important heading). While displaying any heading, browser adds one line before and one line after that heading.

- <h1> Heading </h1>

HTML Paragraph Tag

The <p> tag offers a way to structure your text into different paragraphs. Each paragraph of text should go in between an opening <p> and a closing </p> tag.

- <p> Paragraph </p>

HTML
 Tag

HTML
 tag is used to break line in a paragraph.

- <p> If you want to break line in a paragraph,
 use the br element. </p>

HTML <hr> Tag

HTML <hr> tag is used to specify a paragraph-level thematic break in HTML document. It draws a horizontal line between them.

- <p> If you want to draw a horizontal line in a paragraph, <hr> use the hr element. </p>

HTML Phrase Tags

The HTML phrase tags are special purpose tags, which define the structural meaning of a block of text or semantics of text. Following are some of the phrase tags.

Marked Tag

The content written between <mark> and </mark> tag will show as yellow mark on browser. This tag is used to highlight a particular text.

- <p> This tag will <mark> highlight </mark> the text. </p>

Strong text Tag

This tag is used to display the important text of the content. The text written between `` and `` will be displayed as important text.

- `<p>` This tag will make the text `` bold. `` `</p>`

Emphasized text Tag

This tag is used to emphasize the text, and displayed the text in italic form. The text written between `` and `` tag will italicize the text.

- `<p>` This tag will `` italicize `` the text. `</p>`

Short Quotations Tag

An HTML `<q>` element defines a short quotation. If you will put any content between `<q>` and `</q>`, then it will enclose the text in double quotes.

- `<p>` This tag will enclose the text in `<q>` double quotes. `</q>` `</p>`

HTML Formatting

Bold Text Tag

Text that appears within `` and `` tags is displayed in bold.

- `<p>` This tag will make the text `` bold. `` `</p>`

Italic Text Tag

Text that appears within `<i>` and `</i>` tags is displayed in italicized text.

- `<p>` This tag will `<i>` italicize `</i>` the text. `</p>`

Underlined Text Tag

Text that appears within `<u>` and `</u>` tags is displayed with an underline.

- `<p>` This tag will `<u>` underline `</u>` the text. `</p>`

Superscript Text Tag

The content within `^{` and `}` element is written in superscript; the font size used is the same size as the characters surrounding it but is displayed half a character's height above the other characters.

- `<p>` This tag will keep the word as `^{` superscript. `}` `</p>`

Subscript Text Tag

The content within `_{` and `}` element is written in subscript; the font size used is the same as the characters surrounding it, but is displayed half a character's height beneath the other characters.

- `<p>` This tag will keep the word as `_{` subscript.`}</p>`

HTML Anchor Tag

The HTML anchor tag defines a hyperlink that links one page to another page. It can create hyperlink to other web page as well as files, location, or any URL.

Attribute	Description
href	It is used to define the address of the file to be linked. It points out the destination page.
target	It is used to specify a location for the link to open. Some of the options are: <code>_blank</code> , <code>_self</code> , etc.

- If we will not use target attribute then link will open in same page.
- An unvisited link is displayed underlined and blue, a visited link is displayed underlined and purple and an active link is underlined and red.

HTML Image Tag

HTML `` tag is used to display image on the web page.

Attribute	Description
src	It is a necessary attribute that describes the source or path of the image.
alt	It defines an alternate text for the image, if it can't be displayed.
width	It is an optional attribute which is used to specify the width of the image.
height	It is an optional attribute which is used to specify the height of the image.

HTML Lists

HTML Lists are used to specify lists of information. All lists may contain one or more list elements. There are three different types of HTML lists:

- Ordered List or Numbered List (`ol`)
- Unordered List or Bulleted List (`ul`)
- Description List or Definition List (`dl`)

We can also create a list inside another list, which will be termed as nested List.

HTML Ordered List or HTML Numbered List

It displays elements in numbered format. The ordered list starts with `` tag and the list items start with `` tag.

Attribute	Description
start	The start attribute is used with ol tag to specify from where to start the list items. It is an optional attribute.
type	The type attribute is used to define the style of the list item marker. It is an optional attribute.

There can be different types of numbered lists:

- Numeric Number (1, 2, 3)
- Capital Roman Number (I II III)
- Small Roman Number (i ii iii)
- Capital Alphabet (A B C)
- Small Alphabet (a b c)

Type	Description
Type "1"	This is the default type. In this type, list items are numbered with numbers.
Type "I"	In this type, the list items are numbered with upper case roman numbers.
Type "i"	In this type, the list items are numbered with lower case roman numbers.
Type "A"	In this type, the list items are numbered with upper case letter.
Type "a"	In this type, the list items are numbered with lower case letters.

- `<ol type="A" start="9">`
 ` Mango `
 ` Apple `
 ` Grapes `
 ` Strawberry `
 ``

HTML Unordered List or HTML Bulleted List

HTML Unordered List or Bulleted List displays elements in bulleted format. The HTML `` tag is used for the unordered list.

Type	Description
Type "disc"	This is the default type. In this type, the list items are marked with bullets.
Type "circle"	In this style, the list items are marked with circles.
Type "square"	In this style, the list items are marked with squares.
Type "none"	In this style, the list items are not marked.

```
➤ <ul>
  <li> Mango </li>
  <li> Apple </li>
  <li> Grapes </li>
  <li> Strawberry </li>
</ul>
```

HTML Description List or Definition List

It displays elements in definition form. The <dl> tag defines the description list, <dt> tag defines the data term and <dd> tag defines data definition (description).

```
➤ <dl>
  <dt> HTML </dt>
  <dd> is a markup language </dd>
</dl>
```

HTML Tables

The HTML tables allow web authors to arrange data like text, images, links, other tables, etc. into rows and columns of cells.

The HTML tables are created using the <table> tag. The <tr> tag is used to create table rows and <td> tag is used to create data cells. The elements under <td> are regular and left aligned by default.

```
➤ <table>
  <tr>
    <td>Row 1, Column 1</td>
    <td>Row 1, Column 2</td>
  </tr>
  <tr>
    <td>Row 2, Column 1</td>
    <td>Row 2, Column 2</td>
  </tr>
</table>
```

Table Heading

Table heading can be defined using `<th>` tag. This tag will be put to replace `<td>` tag. Headings, which are defined in `<th>` tag are centered and bold by default.

```
➤ <table>
  <tr>
    <th> Heading 1 </th>
    <th> Heading 2 </th>
  </tr>
  <tr>
    <td> Data Entry 1 </td>
    <td> Data Entry 2 </td>
  </tr>
</table>
```

Attribute	Description
border	It is used to put a border across all the cells.
cellpadding	It defines distance between cell borders and the content within a cell.
cellspacing	It defines white space between table cells.
colspan	It is used to merge two or more columns into a single column.
rowspan	It is used to merge two or more rows into a single row.
height	It specifies table height in terms of pixels or percentage of available screen area.
width	It specifies table width in terms of pixels or percentage of available screen area.

LAB ASSIGNMENT

1. Create a beautiful Webpage for any Topic of your choice. Use at least ten of the tags and attributes mentioned above (except those of Lists and Tables).
2. Create a Webpage that contains the following table and use all the tags and attributes of HTML Tables.

	Monday	Tuesday	Wednesday	Thursday	Friday
10:00 – 11:00	IICT	DLD	OOP	IICT	OOP
11:00 – 12:00		PF	DLD	OOP	
12:00 – 13:00	Namaz Break				
13:00 – 14:00	PF	IICT	PF	DLD	IICT

3. Create a Webpage that contains the following List and use all the tags and attributes of HTML Lists.

Products:

A. Fresh Produce

- Blueberry
- Capsicum
- Fenugreek
- Cilantro

B. Snack Foods

- i. Choco
 - Crepe Chocolate Wafers
 - Cadbury Dairy Milk
 - Crunchy Oats & Honey Bar
 - Kitkat Crunchy
- ii. Snacks
 - Cheez-it
 - Doritos
 - Popcorn

SUBMISSION GUIDELINES

- Take a screenshot of each task.
- Place all the screenshots in a single word file labeled with Roll No and Lab No. e.g. **'cs191xxx_Lab01'**.
- Convert the file into PDF.
- Place all the related files along with the PDF file in a folder labeled with Roll No and Lab No. e.g. **'cs192xxx_Lab01'**.
- Submit the folder at [LMS](#)
- **-100%** policies for plagiarism.