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HTML I - BASIC HTML ELEMENTS

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TOPICS COVERED IN THIS CHAPTER

- ▶ Introduction to HTML
- ▶ Writing HTML Documents
- ▶ Basic Terminology
- ▶ Container and Empty Elements
- ▶ HTML Tag Structure
- ▶ Basic HTML Tags
- ▶ Special Characters
- ▶ Combining Tags
- ▶ Lists



INTRODUCTION TO HTML

- ▶ HTML is a **web page layout**, Hyperlink specification markup language.
- ▶ It tells the browser how to **display the contents** of a **hypertext document** that includes text, images and other support media.
- ▶ It makes the **document interactive** through special **hyperlinks**.



INTRODUCTION TO HTML

- ▶ Though HTML is a language that **supports Multimedia** and new page layout features, yet it has its limitations.
- ▶ It is **not a word processing tool** or a desktop publishing solution. It is **not even a programming language**.
- ▶ It is just a **page-layout** and **hyperlink specification language**.



HISTORY OF HTML

- ▶ **Tim Berner's Lee**, a physicist at CERN, devised a way in late 80s and early 90s to share the document over the Internet.
- ▶ This was in the form of Markup Language called HTML (**Hyper Text Markup Language**)
- ▶ For its first five years (1990-1995), HTML went through a number of revisions.
- ▶ Current approved standard HTML is **HTML 5**, which was released in **2012**.



WRITING HTML DOCUMENTS

- ▶ HTML is made up of **tags and attributes** which work together to identify document parts and tell browsers how to display them.
- ▶ All HTML tags are contained in **<> angle brackets**. E.g. **<HEAD>** tag or **<H1> tag**.
- ▶ A **Tag** is a **coded HTML command** that indicates how part of web page should be displayed.



WRITING HTML DOCUMENTS

- ▶ An **Attribute** is a special word used **inside the tag** to specify **additional information** to the tag such as **color**, **alignment** etc.
- ▶ E.g. ****
- ▶ HTML is **not case sensitive**. HTML tags can be written in capital as well as small letters.
- ▶ For example **<HEAD>** or **<head>** are **same** in HTML.



HTML DOCUMENT STRUCTURE

Every HTML document should follow this general form.

- ▶ `<HTML>`
- ▶ `<HEAD>`
- ▶ `<TITLE>`Title of the Page`</TITLE>`
- ▶ `</HEAD>`
- ▶ `<BODY>`
- ▶ HTML tags that define your page
- ▶ `</BODY>`
- ▶ `</HTML>`



HTML TAGS

- ▶ **<HTML>** tag identifies the document as an **HTML document**. It begins with `<HTML>` and ends with `</HTML>`
- ▶ **<HEAD>** tag contains information about the document like title, scripts used, style definitions and document descriptions. It is entered between `<HTML>` tags.
- ▶ **<TITLE>** tag contains the document title that appears on the browsers' title bar. It is entered between `<HEAD>` tags
- ▶ **<BODY>** tag encloses all the tags, attributes and information to be displayed in the web page. It is entered below the `</HEAD>` tag and above the `</HTML>` tag.



CONTAINER AND EMPTY ELEMENTS/TAGS

In HTML there are two types of elements -

- ▶ **Container Elements**
- ▶ **Empty Elements**
- ▶ **Container** Elements require a **starting tag** and an **ending tag**.
For example `<HTML>` and `</HTML>`
- ▶ **Empty** Elements require **just a starting tag** and not an ending tag. For example `
`, `<HR>`, `` tags



CREATING AN HTML DOCUMENT

To create an HTML Document, you need to use any text editor like Notepad, WordPad, MS Word etc.

- ▶ Open any **text editor**.
- ▶ Type the HTML code in the editor.
- ▶ While saving the HTML Document, give a name followed by **.html** extension or **.htm** extension. E.g. **First.html**
- ▶ Click on '**Save**' button.



VIEWING HTML DOCUMENT

- ▶ Open the **Browser Window**. E.g. Google Chrome, Mozilla Firefox, Internet Explorer etc.
- ▶ Click on **File → Open** or **(Ctrl+O)**
- ▶ Choose the HTML file
- ▶ Click on Open.
- ▶ The Browser will show the webpage.
- ▶ Alternatively, you can **double click** on the saved **HTML document** in order to open it. The document automatically takes the **icon of the default Browser**.



HTML TAG STRUCTURE

- ▶ Every HTML Tag consists of a **tag name**, followed by an **optional list of attributes**, all placed between opening and closing angular brackets `< >`.
- ▶ Tag **attributes** come after the tag name, each **separated** by one or more **tab space**. Their **order of appearance** is **not important**.
- ▶ The **tag attribute's value** is given after **'=' sign** in quotes generally after the attribute name.
- ▶ The **attribute value** can be a **word** or a **number**.



BASIC HTML TAGS

- ▶ Let us learn the basic HTML tags along with their syntax and usage.



HTML TAG

- ▶ This is the **root element** of the HTML document.
- ▶ The **<HTML>** and **</HTML>** are used to mark the **beginning and end** of the HTML document.
- ▶ The **Lang attribute** specifies the **language used** within the document e.g. English, French, German, Hindi etc.
- ▶ E.g. **<HTML lang= en >**



BODY TAG

- ▶ The **Body tag** defines the **document's body**.
- ▶ It contains all the **contents of an HTML document**, such as **text, images, lists, tables, hyperlinks etc.**
- ▶ Let us discuss the various **attributes of <Body> Tag.**



ATTRIBUTES OF BODY TAG

Attribute	Value	Description
ALINK	COLOR	Specifies the color of an active link in a document
BACKGROUND	URL	Specifies the background image for a document
BGCOLOR	COLOR	Specifies the background color of a document
LINK	COLOR	Specifies the color of an unvisited link.
TEXT	COLOR	Specifies the color of the text in a document
VLINK	COLOR	Specifies the color of a visited link
LEFTMARGIN	Pixel Value	Specifies the left margin in a document
RIGHTMARGIN	Pixel Value	Specifies the right margin in a document



HEADINGS IN HTML

- ▶ HTML has **six level of headings**, numbered **1 through 6**, with 1 being the largest.
- ▶ Headings are displayed in **larger or bolder fonts** than normal body text.
- ▶ The syntax of heading tag is `<H> text of the heading</H>`
- ▶ **ALIGN** attribute is used to control the alignment of the text of the heading.
- ▶ E.g. `<H1 ALIGN="CENTER"> My First Article </H1>`



DEFINING PARAGRAPHS IN HTML

- ▶ `<P>` Tag is used to **define paragraph** in a document.
- ▶ The **text** that you type between `<P>` and `</P>` is by **default left aligned**.
- ▶ **ALIGN attribute** can be used with `<P>` tag to change the alignment.
- ▶ E.g. `<P ALIGN="RIGHT"> ... </P>`



 TAG

- ▶
 tag stands for **line break**.
- ▶ It is used to end one line and jump to the next.
- ▶ It is an **empty element**, therefore it **doesn't have a closing tag**.
- ▶ E.g.



<CENTER> TAG

- ▶ To **centralize the segment of the text**, an alternative way is to use <CENTER> tag.
- ▶ Type the text between <CENTER> and </CENTER>, the text will appear centralized in the browser window.
- ▶ E.g. <CENTER> This is centralized</CENTER>



BASEFONT TAG

- ▶ Most popular browsers use relative model for sizing fonts.
- ▶ Sizes range from 1 (the smallest) to 7 (the largest) and default font size (set by **BASEFONT** is 3).
- ▶ **<BASEFONT>** tag lets you define basic size for the font.
- ▶ **<BASEFONT>** tag is used with the attribute 'size' whose value determines the document's base font size.
- ▶ E.g. **<BASEFONT SIZE=4> ... </BASEFONT>**
- ▶ Ending tag **</BASEFONT>** is optional.



FONT TAG

- ▶ `` tag lets you change the **size, color and style** of the text.
- ▶ It is generally used to change the **appearance of the short segment of the text**.
- ▶ The **attributes size, color and face** are used to change the size, color and style of the font respectively.
- ▶ E.g.
- ▶ ``
- ▶ The value in the size attribute can be from 1 to 7.



<HR> TAG

- ▶ <HR> tag is used to specify **Horizontal Rule**.
- ▶ Horizontal rules are the way to separate sections of your document visually.
- ▶ <HR> tag produces a **horizontal line** spread across the width of the browser window.
- ▶ It is an **empty element** and therefore **doesn't have a closing tag**.
- ▶ E.g. **<HR COLOR = "RED">**



ATTRIBUTES WITH <HR> TAG

Attribute	Value	Description
ALIGN	Left, Right, Center	Specifies the alignment of the rule
NOSHADE	Noshade	Specifies that the <hr> element should render in one solid color without shade.
SIZE	Pixels	Specifies the height of <hr> element
WIDTH	Pixel%	Specifies the width of <hr> element
COLOR	Color	Specifies the color of <hr> element



COMMENTS IN HTML

- ▶ **Comments** are one type of **textual content** which appear in your HTML code, but are **not rendered by the user's browser**.
- ▶ Comments are given between **<!-- and -->** markup elements.
- ▶ E.g. **<!-- This is a comment -->**



SPECIAL CHARACTERS

- ▶ Three ASCII Characters, the **left Angle bracket (<)**, the **right angle bracket (>)** and the **ampersand (&)** have **special meaning in HTML** and therefore cannot be used “as is” in the text.
- ▶ The angle brackets are used to mark the beginning and the end of the tags.
- ▶ To use these special characters, you must use the escape sequence as illustrated below:
 - ▶ **<** - The escape sequence for <
 - ▶ **>** - The escape sequence for >
 - ▶ **&** - The escape sequence for &
 - ▶ E.g.
 - ▶ **<P> < , > and & are special characters </P>**



LISTS IN HTML

- ▶ There are three types of Lists in HTML
 1. **Numbered/ Ordered Lists**
 2. **Unnumbered/Unordered Lists**
 3. **Definition Lists**



UNNUMBERED OR UNORDERED LISTS

- ▶ The **unnumbered** or unordered lists are **bulleted lists**.
- ▶ These lists are indented lists with a special bullet symbol in front of each item.
- ▶ These lists are marked by `` and ``.
- ▶ `` tag is used to specify an item in the list.

E.g.

- ▶ ``
- ▶ ` ASHOKA`
- ▶ ` KANISHKA`
- ▶ ` PRATAP`
- ▶ ` SHIVAJI`
- ▶ ``



TYPE ATTRIBUTE WITH

- ▶ **TYPE Attribute** is used to **change the bullet style**.
- ▶ This attribute may have values **disc, circle or square**.
- ▶ The disc is the default bullet i.e. a solid circle.
- ▶ E.g. **<UL TYPE= “CIRCLE”**



NUMBERED LIST OR ORDERED LIST

- ▶ **Ordered or Numbered** lists are **indented lists** with **numbers or letters** in front of each item.
- ▶ These lists are marked by `` and ``.
- ▶ The items tagged with `` appear numbered.
- ▶ E.g.
 - ▶ ``
 - ▶ ` ORANGE`
 - ▶ ` APPLE`
 - ▶ ` GRAPES`
 - ▶ ``



START ATTRIBUTE WITH TAG

- ▶ The **START** attribute for the tag lets you change the beginning value.
- ▶ To start numbering the list at 5:
- ▶ **<OL START=5>**



TYPE ATTRIBUTE WITH TAG

- ▶ By default, browsers number ordered list items with a sequence of Arabic numerals.
- ▶ TYPE attribute can be used with tag to change the numbering style.

Type Value	Generated Styles	Sample Sequence
A	Capital Letters	A, B, C, D
a	Lowercase Letters	a, b, c, d
I	Capital Roman Numerals	I, II, III, IV
i	Lowercase Roman Numerals	I, ii, iii, iv
1	Arabic Numerals	1,2,3,4



DEFINITION LISTS

- ▶ A Definition List consist of a Definition Term coded as `<DT>` and Definition Description coded as `<DD>`.
- ▶ Web Browsers format the definition on a new line and indent it.
- ▶ E.g.

`<DL>`

`<DT>` NCSA

`<DD>` NCSA, The National Center for Supercomputing Applications is located on the campus of the University of Illinois

`</DL>`



NESTED LISTS

- ▶ Lists can be nested. The following is the sample nested list.

```
<UL>
```

```
<LI> A few new Indian States
```

```
  <UL TYPE = CIRCLE>
```

```
    <LI> Jharkhand
```

```
    <LI> Uttaranchal
```

```
    <LI> Chhattisgarh
```

```
  </UL>
```

```
<LI> Two other states:
```

```
  <UL TYPE = CIRCLE>
```

```
    <LI> West Bengal
```

```
    <LI> Karnataka
```

```
  </UL>
```

```
</UL>
```



END OF THE CHAPTER

Thank You