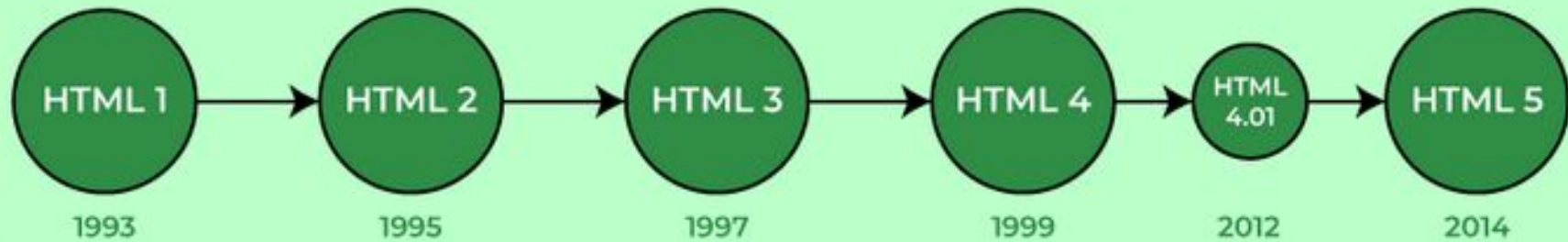221601103

INTERNET & WEB DESIGNING USING IHTML5

HTML Introduction

- HTML stands for Hyper Text Markup Language. It is used to design web pages using a markup language.

- HTML is an abbreviation of Hypertext and Markup language.

- HTML is a markup language used by the browser to manipulate text, images, and other content, in order to display it in the required format.

- HTML was created by Tim Berners-Lee in 1991.

- The first-ever version of HTML was HTML 1.0, but the first standard version was HTML 2.0, published in 1995.
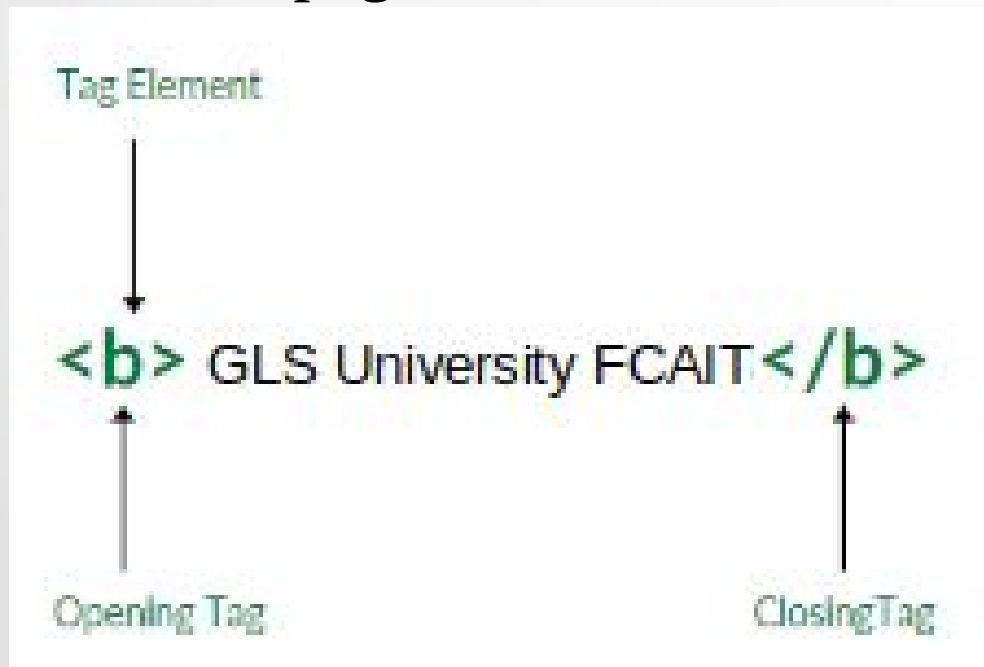
HTML Released Year

HTML 1 → HTML 2 → HTML 3 → HTML 4 → HTML 4.01 → HTML 5

1993 · 1995 · 1997 · 1999 · 2012 · 2014

Elements and Tags

HTML uses predefined tags and elements which tell the browser how to properly display the content. Remember to include closing tags.
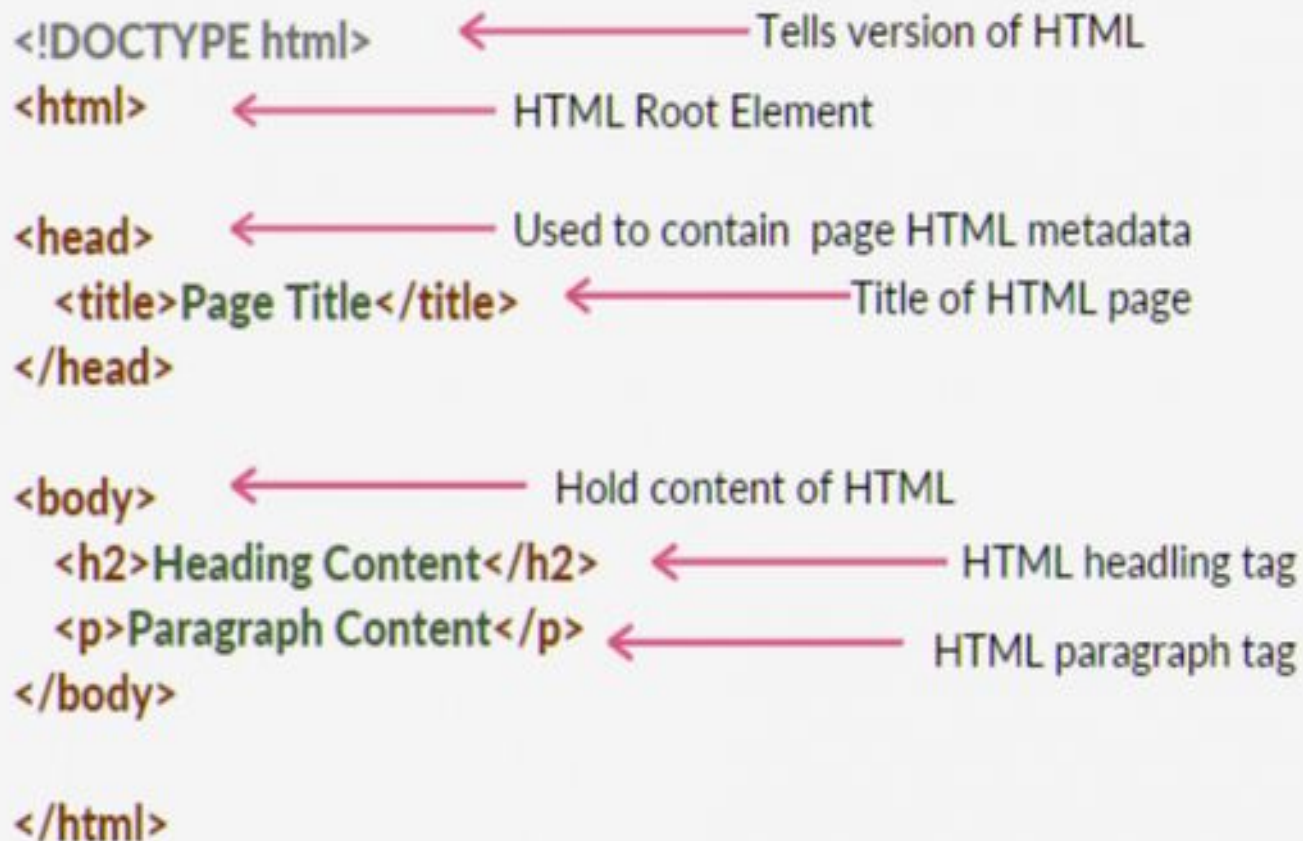
If omitted, the browser applies the effect of the opening tag until the end of the page.

HTML page structure

The basic structure of an HTML page is laid out below. It contains the essential building-block elements (i.e. doctype declaration, HTML, head, title, and body elements) upon which all web pages are created.

HTML Page Structure

```
<!DOCTYPE html>          ←————————— Tells version of HTML
<html>          ←————— HTML Root Element

<head>          ←————— Used to contain  page HTML metadata
  <title>Page Title</title>   ←————Title of HTML page
</head>

<body>          ←————— Hold content of HTML
  <h2>Heading Content</h2>    ←————— HTML headling tag
  <p>Paragraph Content</p>    ←————— HTML paragraph tag
</body>

</html>
```

Fundamentals of HTML5

- HTML describes the structure of Web Pages.

- HTML consists of a <u>series of elements</u> which tells the browser how to display   the content in the browser.

- HTML tags are used to define <u>look & feel</u> of website by understanding them and putting them together.

- Every documents must start with a tag <u><! DOCTYPE html></u> which indicated the browser that its a html page.

Head Section

- The **<head>** section of the document contains all information about the whole document contains.

- It should include **<title>** which apperars in the browser's title bar.

- **<meta>** element which stores the information about the documents.

```
<head>

    <title> Title Page </title>

    <meta charset="UTF-8">

</head>
```

Body Section

- In **\<body\>** section it contains the documets itself which is designed for visible to human.

- This section contains other all elements & tags in itself to make the html document complete.

\<**body\>**

   \<h1\> Heading is here \</h1\>
   \<p\> Paragraph is here\</p/\>
\</body\>

HTML Tags

- **<DOCTYPE html>** only appear once in the top of the document.
- **<html> </html>** starting & ending tags of html also known as root elements.
- **<head></head>** contains the information about the documents.
- **<title></title>** title of the document appears in browser's title bar.
- **<body></body>** contains the visibl part of the documents.
- **<h1> to <h6>** defines the different size of headings.
- **<hr>** to make a horizontal lines in between the page.
- **
** to break the current line give a new line.
- **<p>** used as a paragraph tag gives the paragraph style.
- **<div>** it divides the document in a different sections.
- **<u>, <b>, <i>** Styling the fonts in underline, bold, italic.

Headings

- All html headings are declared in **\<h1\> to \<h6\>**
- **\<h1\>** used for very important/main heading **\</h1\>**.
- **\<h6\>** used for least imortant heading **\</h6\>**.

```
<body>

    <h1> Most Imortant Heading</h1>

    <h2>  More Important Heading</h2>

    <h6> Least Important Heading</h6>

</body>
```

Tags

- **<hr>** tag is used to display a horizontal line which is used to seprate the content in the paragraph or html page.

<h4>HTML</h4>

<p>HTML is the standard markup language for creating Web pages.</p>

<hr>

<h4> CSS</h4>

<p>CSS is a language that describes how HTML elements are to be displayed on screen, paper, or in other media.</p>

Tags

- **\<br\>** tag is used to insert a singe line break.

- We can used **\<br\>** tag in poem and paragraphs to divide two or more sections.

```
<body>
Twinkle, twinkle, little star<br> How I wonder what you are <br>
Up above the world so high <br>
Like a diamond in the sky <br>
Twinkle, twinkle, little star <br>   How I wonder what you are
<br>
</body>
```

Tags

- **\<p\>** tag is used for defining a paragraph in the documents.

- **\<p\>** use to add empty line before and after a paragraph.

- **\<p\>** is having a closing \</p\> tag.

\<body\>

\<p\>Hickory dickory dock, the mouse ran up the clock.The clock struck one, the mouse ran down.Hickory dickory dock.Hickory dickory dock, the mouse ran up the clock.\</p\>

\<p\>Humpty Dumpty sat on a wall.Humpty Dumpty had a great fall.All the Kings horses, and all the king's men, couldn't put Humpty together again. \</p\>

\</body\>

Tags

- **<u> <i>** tag for styling the documents.

- <u> used for underling the line/ documents.

<u> Underlining the Text</u>

- used for bold text.

 bold text

- <i> used for italic type text.
<i> Italic type</i>

Tags

- **<div>** tag is used to divided the documents in sections.

- It simply defines a block of content which can be styled as a single unit on a page.

```
<div>

<p>One, two, three, four, five, Once I caught a fish alive, Six, seven, eight, nine, ten, Then I let go again</p>

<p>Five little monkeys jumping on the bed, One fell off and bumped his head. Mama called the Doctor and the Doctor said, "No more monkeys jumping on the bed!'</p>

</div>
```

List Tags

Ordered List

Unordered List

Defination List

List Tags – unordered List

- An unordered list starts with the tag <UL> and ends with </UL>.

- Each list item starts with the tags <li>. The attributes that can be specified with <li> are:

Attributes	Description
disc	Sets the list item marker to a bullet (default)
circle	Sets the list item marker to a circle
square	Sets the list item marker to a square
none	The list items will not be marked

List Tags – ordered List

- An ordred list starts with the tag <OL> and ends with </OL>.

- Each list item starts with the tags <li>. The attributes that can be specified with <li> are:

Attributes	Description
type="1"	The list items will be numbered with numbers (default)
type="A"	The list items will be numbered with uppercase letters
type="a"	The list items will be numbered with lowercase letters
type="I"	The list items will be numbered with uppercase roman numbers
type="i"	The list items will be numbered with lowercase roman numbers

List Tags – Definition List

- It is also called Desciption List

- The <dl> tag defines the description list, the <dt> tag defines the term (name), and the <dd> tag describes each term

Special Characters

CHAR	NUMBER	ENTITY	DESCRIPTION
			SPACE
<	<		LESS THAN
>	>		GRATER THAN
&	&		AND
₵	8373	20B5	CEDI SIGN
₤	8356	20A4	LIRA SIGN

Special Characters

CHAR	NUMBER	ENTITY	DESCRIPTION
₹	8377	20B9	INDIAN RUPEE SIGN
Rs	8360	20A8	RUPEE SIGN
©	©	©	COPYRIGHT SIGN
®	®	®	REGISTERED SIGN
∀	∀	∀	FOR ALL
∑	∑	∑	N-ARY SUMMATION
™	™	™	TRADEMARK

Link Tag

• HTML allows linking to other HTML documents as well as images.

• Clicking on a section of text or an image in one web page will open an entire web page or an image.

• The text or an image that provides such linkage is called Hypertext, a Hyperlink oor a hotspot.

• <a href="Filename.html">

Link Tag

- **\<a\>** anchor tag is used for defining a hyperink, to link one page to another.

- Most important attribute of anchor tag is **href** which defines the link's destination.

- Normally the linked tag will open on the current page, unless you define the specific target.

- Targets where to display the Linked Url.

 _self : (Default) the current browser page.

_blank : Opens the linked document in new windows/ tab.

 _parent : Opens the linked document in parent window.

_top : Opens the linked document in top most parent Window.

`<a href="https://google.com" target="_self">For visit Google Page...!</a>`

-

Link Tag

- Link Can be:
- External Document Reference
- Internal Document Reference
- Image Link

Link Type	Description
LINK	Changes the default color of a Hyeper link to whatever color is specified with this tag. The user can specify the color name.
ALINK	Changes the default color of a hyperlink that is activated to whatever color is specified with this tag.
VLINK	Changes the default color of a hyperlink that is already visited to whatever color is specified with this tag.

Image Tag

- **<img>** image tag used to link image to the webpage.

- Specially requires two attributes.

  src --> describes the source/path of the image.

  alt --> alternate text that shows up when image is not displayed in the webpage.

<p> Image of a Animated Girl </p>

<img src="img1.jpg" alt="Animate Girl" width=200 height= 200>

Comments

Comment tags are used to insert comments in the HTML source code.

<!-- Write your comments here -->

Image Map <MAP>

- The <map> tag is used to define a client-side image-map. An image-map is an image with clickable areas.

- The required name attribute of the <map> element is associated with the <img>'s usemap attribute and creates a relationship between the image and the map.

- The <map> element contains a number of <area> elements, that defines the clickable areas in the image map.

Image Map <MAP>

- The <area> tag takes certain attributes.

Attribute	Description
shape	The Shape of a region can be one of the following : Rect, Circle, Poygon, Default
coords	A Rectange will take Coordinates : x1,y1,x2,y2 A Circle will take Coordinates : Centerx, Centery and radius A Polygon will take three or more paris of coordinates A Default shape will not take any parmeter and it indicates protion of the image not specified under any area tag.
href	Takes the name of the .html file that is linked ot the pariticular area on the image.

Mark Tag

- The <mark> tag defines text that should be marked or highlighted.

<p>Hiiii here myself <mark>Prof. Nasrin </mark> From FCAIT</p>

Special HTML5 tags

1. \<nav\> tag

- The \<nav\> tag defines a set of navigation links.
- The \<nav\> element is intended only for major blocks of navigation links.

```
<nav>
 <a href="/html/">HTML</a> |
 <a href="/css/">CSS</a> |
 <a href="/js/">JavaScript</a> |
 <a href="/python/">Python</a>
</nav>
```

Special HTML5 tags

2. \<wbr\> tag

- The \<wbr\> (Word Break Opportunity) tag specifies where in a text it would be ok to add a line-break.

\<p\>This is a veryveryveryveryveryveryveryveryveryveryveryveryveryveryv eryveryverylongword\<wbr\>thatwillbreakatspecificplaceswhenthebr owserwindowisresized.\</p\>

Special HTML5 tags

3. <bdi> tag

• BDI stands for Bi-Directional Isolation.

• The <bdi> tag isolates a part of text that might be formatted in a different direction from other text outside it.

• This element is useful when embedding user-generated content with an unknown text direction.

```
<ul>
 <li>User <bdi>hrefs</bdi>: 60 points</li>
 <li>User <bdi>jdoe</bdi>: 80 points</li>
 <li>User <bdi>إيان</bdi>: 90 points</li>
</ul>
```

Special HTML5 tags

4. <dialog> tag

- The <dialog> tag defines a dialog box or subwindow.
- The <dialog> element makes it easy to create popup dialogs and modals on a web page.

<p>This is some text.</p>

<dialog open>This is an open dialog window</dialog>

<p>This is some text.</p>

Special HTML5 tags

5. <progress> tag

• The <progress> tag represents the completion progress of a task.

• Tip: Always add the <label> tag for best accessibility practices!

```
<label for="file">Downloading progress:</label>
<progress id="file" value="32" max="100"> 32% </progress>
```

Special HTML5 tags

6. <meter> tag

• The <meter> tag defines a scalar measurement within a known range, or a fractional value. This is also known as a gauge.

Examples: Disk usage, the relevance of a query result, etc.

```
<label for="disk_c">Disk usage C:</label>
<meter id="disk_c" value="2" min="0" max="10">2 out of 10</meter><br>


<label for="disk_d">Disk usage D:</label>
<meter id="disk_d" value="0.6">60%</meter>
```

Special HTML5 tags

7. <menu> tag

• The <menu> tag defines a list/menu of commands.

• The <menu> tag is used for context menus, toolbars and for listing form controls and commands.

• This tag is not supported in many browsers and it is deprecated.

Special HTML5 tags

7. \<menuitem\> tag

- The \<menuitem\> tag defines a command/menu item that the user can invoke from a popup menu.

- The \<menuitem\> tag is deprecated in HTML5.