

UNIT -1 INTRODUCTION TO HTML

- Fundamental of HTML
- Basic Tags and Attribute
- The Formatting Tags
- Inserting Special Characters
- The List Tag
- Link Tag
- Adding Images
- Image Map

Fundamental of HTML

- HTML stands for **Hyper Text Markup Language**.
- HTML is a **markup language** for describing web documents (web pages).
- HTML is a language interpreted by a Browser.
- A markup language is a **set of markup tags**.
- HTML documents are described by **HTML tags**.



The Structure of an HTML program

```
<!DOCTYPE html>
```

```
<HTML>
```

```
  <HEAD>
```

```
    .....
```

```
  </HEAD>
```

```
  <BODY>
```

```
    .....
```

```
    .....
```

```
  </BODY>
```

```
</HTML>
```

- 
- An HTML Document is mainly divided into two parts:

- 1) HEAD:

This contains the information about the HTML document. For Example, Title of the page, version of HTML, Meta Data etc.

- 2) BODY:

This contains everything you want to display on the Web Page.



Every Webpage must contain this code. Below is the complete explanation of each of the tags used in the above piece of HTML code:

- **<!DOCTYPE html>**: This tag is used to tell the HTML version. This currently tells that the version is HTML 5. (now a days it is not used).
- **<html>**: This is called HTML root element and used to wrap all the code. Without this tag you are not supposed to run your file.

- 
- `<head>`: Head tag contains metadata, title, page CSS etc. All the HTML elements that can be used inside the `<head>` element are:

`<style>`

`<title>` : we are using this tag only to show the title bar on the web page.

`<base>`

`<noscript>`

`<script>`

`<meta>`

- `<body>`: Body tag is used to enclosed all the data which a web page has from texts to links. All of the content that you see rendered in the browser is contained within this element.

File Extension

file extension

- The script(program) file should be saved with “.html” or “.htm” extension.
- Example :- file1.html
 :- program1.htm

How to run your file?

- Your computer system need to have any browser to run your html5 program file.
- **mozilla firefox browser is recommended.**



Firefox
Mozilla Foundation



Opera
Opera Software



Chrome
Google



Edge
Microsoft

HTML Tags

- Tags are **instructions that are embedded directly into the text** of the document.
- An HTML **tag is signal to a browser** that it should do something other than just throw text up on the screen.
- HTML Tag begin with an open angle bracket < and end with a close angle bracket >
- For example , <l>

Paired Tags	Singular Tags
<ul style="list-style-type: none"> A tag is said to be a Paired tag if it has opening and closing tag. 	<ul style="list-style-type: none"> A tag is said to be a Singular tag if it has only opening tag.
<ul style="list-style-type: none"> Also known as container tag. 	<ul style="list-style-type: none"> Also known as non-container tag.
<ul style="list-style-type: none"> For example the tag is a paired tag. 	<ul style="list-style-type: none"> For example the
 tag is a paired tag.
<ul style="list-style-type: none"> Syntax <Opening Tag> Hello <Closing Tag> Example Hello 	<ul style="list-style-type: none"> Syntax <Opening Tag> Hello or Hello <Opening Tag> Example Hello

Types of Tag

HTML Tags



```
graph TD; A[HTML Tags] --> B[Container tags (Paired Tag)]; A --> C[Non-Container Tags (Non-paired Tag)]; B --> D["<p>.....</p>"]; B --> E["<h1>.....</h1>"]; B --> F["<a>.....</a>"]; B --> G["<b>.....</b>"]; C --> H["<br>"]; C --> I["<hr>"];
```

**Container tags
(Paired Tag)**

`<p>.....</p>`

`<h1>.....</h1>`

`<a>.....`

`.....`

**Non-Container Tags
(Non-paired Tag)**

`
`

`<hr>`

<BODY>Tag and it's Attributes

ATTRIBUTES	DESCRIPTION
BGCOLOR	<p>Changes the default background color to whatever color is specified with this tag. User can specifiy a color by name or its equivalent hexadecimal number</p> <p><body bgcolor="color_name hex_number rgb_number"></p>
BACKGROUND	<p>Specifies the name of the Gif file that will be used as the background of the document.</p> <p><body background="image name image_path"></p>
TEXT	<p>Changes the body text color from its default value to the color specified with this attribute.</p> <p><body text="color_name hex_number rgb_number"></p> <p>color_name: It specify the name of the color for the text in the Document.</p> <p>hex_number: It specify the hex code of the color of the Text in the Document.</p> <p>rgb_number: It specify the rgb value of the Text in the Document</p>

FORMATTING TAGS

- `<P> </P>`
- `
`
- `<H1> </h1>` TO `<H6> </H6>`
- `<HR>`
- ` `
- `<I> </I>`
- `<U> </U>`
- `<CENTER> </CENTER>`
- ` `

<P> Tag

- The HTML <p> element defines a paragraph.
- On encountering this tag browser, moves onto a new line, skipping one line between the previous line and the new line.

 Line Break

- The HTML
 element defines a line break.
- Use
 if you want a line break (a new line) without starting a new paragraph

Heading Styles <H1>

- HTML supports six different levels of headings.
- Headings are defined with the <h1> to <h6> tags.
- <h1> defines the most important heading. <h6> defines the least important heading.
 - `<h1> GLS ICA </h1>`

<HR> tag

- The <HR> tag draws lines. This tag draws a horizontal line across the whole page wherever specified.

Attributes	Description
ALIGN	Aligns the line on the browser screen. Defalut is center of the screen.
SIZE	Changes the size of the rule.
WIDTH	Set the width of the rule

Text Style <I> <U>

- To display text in Bold style tag is used.
- To display text in Italics style <I> </I> tag is used.
- To display text with underline <U> </U> tag is used.

Text Formatting <center>

- <CENTER> </CENTER> tag are used to center everything found between them.

Attributes	Description
TYPE	To Specify whether space has to be left horizontally or vertically. TYPE = "HORIZONTAL" TYPE = "VERTICAL"
SIZE	Indicates the amount of space to be left. Size accept any integer.

 Tag

- All text specified within the tags .. will appear in the font , size and color as specified as attributes of tetag .

Attributes	Description
FACE	Set the font to the specified font name.
SIZE	Set the size of the text SIZE can take values between 1 to 7. The default size used is 3
COLOR	Set the color of the text. COLOR can best to an English language color name or to a hexadecimal triplet.

 Tag

- The tag is a phrase tag. It defines important text.
- Strong text

 Tag and <small> tag

- The tag is a phrase tag. It renders as emphasized text.
- Emphasized text
- The <small> tag defines smaller text (and other side comments).
- <small>Copyright 1999-2050 by Refsnes Data</small>

<MARK>, and <ins> tag

- The <mark> tag defines marked text.
- Use the <mark> tag if you want to highlight parts of your text.
- <mark>milk</mark>
- The tag defines text that has been deleted from a document.
- The <ins> tag defines a text that has been inserted into a document.
- blue <ins>red</ins>

<SUB> and <SUP> tag

- The <sub> tag defines subscript text.
- Subscript text appears half a character below the normal line, and is sometimes rendered in a smaller font.
- Subscript text can be used for chemical formulas, like H₂O.
- _{subscript}
- The <sup> tag defines superscript text.
- Superscript text appears half a character above the normal line, and is sometimes rendered in a smaller font.
- Superscript text can be used for footnotes, like WWW^[1].
- ^{superscript}

<Q> and <BLOCKQUOTE> tag

- The <q> tag defines a short quotation.
- <q>Build a future where people live in harmony with nature.</q>
We hope they succeed.</p>
- The <blockquote> tag specifies a section that is quoted from another source.
- <blockquote cite="<http://www.worldwildlife.org/who/index.html>">For 50 years, WWF </blockquote>

<ABBR> and <CITE> tag

- The <abbr> tag defines an abbreviation or an acronym, like "Mr.", "Dec.", "ASAP", "ATM".
- <abbr title="World Health Organization">WHO</abbr>
- The <cite> tag defines the title of a work (e.g. a book, a song, a movie, a TV show, a painting, a sculpture, etc.).
- <cite>The Scream</cite>

Footer

- Footer
 - Some time we need to place some common information at the bottom of the web page. This can be done through `<ADDRESS> </ADDRESS>` tag.
 - This tag should ideally be placed immediately after the last line of the textul material of the web page.

COMMENT IN HTML

- Comment tags are used to insert comments in the HTML source code.
- HTML comments are not displayed in the browser, but they can help document your HTML source code.
- Commenting in HTML allows developers to leave notes about their code, its functionality or to indicate necessary changes for the future.
- Syntax

`<!-- Write your comments here -->`

SPECIAL CHARACTER IN HTML

- Some characters are reserved in HTML and they have special meaning when used in HTML document. For example, you cannot use the greater than and less than signs or angle brackets within your HTML text because the browser will treat them differently and will try to draw a meaning related to HTML tag.



SPECIAL CHARACTER IN HTML

HTML processors must support following five special characters listed in the table that follows.

CHARACTER	NUMBER	ENTITY	DESCRIPTION
	 		SPACE
<	<		LESS THAN
>	>		GRATER THAN
&	&		AND
¢	₵	20B5	CEDI SIGN
£	₤	20A4	LIRA SIGN

SPECIAL CHARACTER IN HTML

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

List Tags

Creating Lists in HTML

3 types of lists

- Unordered list
 - Bulleted items
- Ordered list
 - Numbered items
- Definition List
 - a list of items, with a description of each item

List Tags – unordered List

- An unordered list starts with the tag `` and ends with ``.
- Each list item starts with the tags ``. The type attribute that can be specified with `` are:

Values	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 ordered list starts with the tag `` and ends with ``.
- Each list item starts with the tags ``. The attributes that can be specified with `` are:

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

List Tags – Definition List

- It is also called Description List
- The `<dl>` tag defines the description list, the `<dt>` tag defines the term (name), and the `<dd>` tag describes each term:
- A description list is a list of items with a description or definition of each item.
- The description list is created using `<dl>` element. The `<dl>` element is used in conjunction with the `<dt>` element which specify a term, and the `<dd>` element which specify the term's definition.
- Browsers usually render the definition lists by placing the terms and definitions in separate lines,



`<dl>`

`<dt>.....</dt>` (you can add one title)

`<dd>.....</dd>` (you can add one description with title)

`<dt>.....</dt>` (you can add one title)

`<dd>.....</dd>` (you can add two description with title)

`<dd>.....</dd>`

`</dl>`

EXAMPLE

```
<dl>
  <dt>Bread</dt>
  <dd>A baked food made of flour.</dd>
  <dt>Coffee</dt>
  <dd>A drink made from roasted coffee beans.</dd>
</dl>
```

OUTPUT

Bread
 A baked food made of flour.

Coffee
 A drink made from roasted coffee beans.

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 or a hotspot.
- ``

Link Tag

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

Link Type	Description
LINK	Changes the default color of a Hyper 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 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 '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 proton 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.