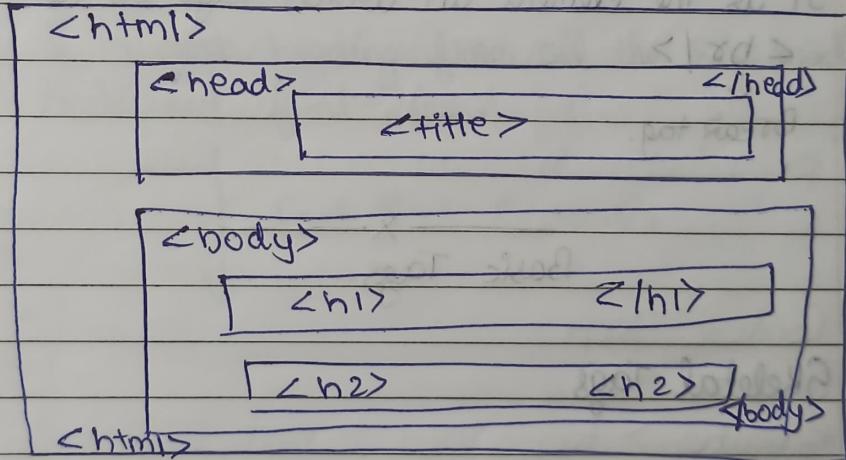


HTML

- * Hyper Text Markup language.
- * Case Sensitive
- * ".html" or ".htm" is the extension.
- * Consists of set of tags interpreted by web browser.
- * Hypertext refers to linking text with other documents and "markup language" refers to a language that uses a set of tags.
- * Tim Berners Lee established www and HTML in 1991.
- * 5-must use tags.
`<!DOCTYPE html> , <html> , <head>,<title>,<body>`



- * Closing tags :- Used to close the content in between them. Also known as "Ending tags".
- * Some tags don't have their corresponding closing tags. These are also known as "Stand-Alone tags", "Empty tags", "Self closing tags". Eg:-
`
`
`<hr />`
``

* **HTML element**

HTML = Start tag + Content + End tag.

Eg:- $\underline{<h1>} \text{ Heading one } \underline{</h1>}$
 Start tag Content End tag

* **Nested Element.**

Nested HTML element is the one in which one element is followed by another.

Eg:- $\underline{<h1>} \underline{} \text{ Heading one } \underline{} \underline{</h1>}$
 Start tag bold Content Closing bold End tag

* **Empty Element.**

It is the element in which tags do not have any content.

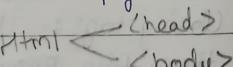
Eg:- $
$
 Break tag.

X
 Basic Tags.

* **Skeletal Tags**

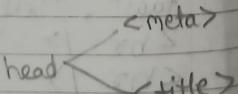
1. $<html>$ tag is the "root of an HTML page".

Syntax:-
 $<html>$
 |
 /Content
 $</html>$



2. $<head>$ tag is the "header part of an HTML page".

Syntax:-
 $<head>$
 /Content
 $</head>$



3. $<title>$ tag is the "title part of an HTML page".

Syntax:
 $<title>$
 //Content as title name
 $</title>$

4. $<body>$ tag is the "body part of an HTML page".

Syntax:
 $<body>$
 //body content
 $</body>$

* **Heading Tags.**

→ $<h1>$ tag.

Bigest & Boldest heading from all the six heading levels. Predefined font-size.

→ $<h2>$
 → $<h3>$
 → $<h4>$
 → $<h5>$
 → $<h6>$

Font size Decreases

* **Paragraph Tags.**

→ $<p>$ tag "defines a paragraph on an HTML page".

- Used to show text or content in a paragraph on your HTML page.
- Automatically adds empty lines space above & below your paragraph.

* Horizontal Line Tag.

→ <hr/> tag "defines a horizontal line"

The <hr/> tag is an empty tag where closing tag is not needed (self closing tag). A horizontal tag is used to break your documents visually by adding a horizontal line.

* Line Break Tag.

→
 tag "used to break two lines or paragraphs".

 is an empty tag without closing tag (self closing tag). It automatically breaks the paragraph into a new line.

* Center Tag.

→ <center> tag "used to put content in the center".

Used to put content in the center of the page or table sometimes.

* Preserve Formatting Tag.

→ <pre> tag "used to put exact code on an HTML page".

Preserve formatting preserves the format of the source document. It is used to put your content same as it is

on your HTML page.

Formatting Tags.

* Bold Text Tag.

→ Tag :- To make the text bold.

All text content between this tag appears bold.

* Strong Text Tag

→ Tag :- Used to make text important or bold.

All content between these tags are bold, important and highlighted.

* Italic Text Tag.

→ <i> tag :- used to represent a change in mood or quality of text".

All contents between these tags are displayed in Italic.

* Emphasized Text Tag.

→ tag :- used to display emphasized text"

Using `` tag we can display our text in italic font. `` means stressed emphasis.

* Underline Text Tag

→ `<u>` :- "Used to underline misspelled words".

Used to underline our ~~misspelled~~ words or texts. Everything is underlined between these tags.

* Strike Text Tag

→ `<strike>` :- "Used to make a thin line through text".

Using ~~~~ `<strike>` we can make a thin line on our text. Everything between these lines appear to be displayed with a strikethrough.

* SuperScript Text Tag.

→ `<sup>` :- "Used to display a text above other text with half of its height".

Using `<sup>` Everything is superscripted between these tags. Used in mathematical formula representation, footnotes, etc.

* Subscript Text Tag.

→ `<sub>` :- "Used to display a text beneath other text with half of its height".

Using `<sub>` everything is subscripted between the tags. Used in naming science elements, compounds, etc.

* Marked Text Tag.

→ `<mark>` :- "used to display highlighted text".

Using `<mark>` we can display our text marked & highlighted.

* Monospaced Text Tag.

→ `<tt>` :- "used to display each letter with same width"

each letter of an alphabet has a different width like 'w' is wider than 'i' so to overcome that we use monospaced

* Inserted Text Tag.

→ `<ins>` "used to display an inserted text".

Used to insert text into a document. All document between this tag appears to be underline.

* Deleted Text Tag

→ `` "Used to display a deleted text".

Used to ~~delete~~ our text from a document.
All the content between this ~~text~~ tag appears to be displayed with a ~~strike~~ line.

* Larger Text Tag

→ `<big>` "Used to display a larger text".

All the contents between these tags appear to be one font size larger.

* Smaller Text Tag.

→ `<small>` "Used to display a smaller text".

All the contents between these tags appear to be one font size smaller.

* Text Abbreviation Tag.

→ `<abbr>` "Used to define abbreviation form of an element".

Using this, we can abbreviate a text.

* Acronym Tag.

→ `<acronym>` "Used to define acronym".

Using this we can define an acronym text.

* HTML Quotations

* Blockquote Tag

→ `<blockquote>` "Used to insert long quote".

* Quote Tag

→ `<q>` "Used to insert short quote or a double quote".

* Text citation Tag

→ `<cite>` "Used to provide a reference or defines a title of a creative work".

* Text Direction Tag.

→ `<bdo>` "Used to override the current direction of text".

`bdo` refers to bidirectional override. It uses attribute `rfl` (right to left) or `ltr` (left to right).

* Address Text Tag

→ <addr> "Used to show contact information on an HTML page".

* Code Tag

→ <code> "Used to show programming code on an HTML page as it is".

HTML Attributes

- Used to define the characteristics of an element.
- Placed in the opening tag.
- Made up of two parts :- Name of Value.

Name - Used to set the property for that element.
Value - Used to set the value of that property.

* Core Attributes

→ The Id Attribute

The id attribute is used to give a unique id to an HTML element. Each element in HTML with an id attribute has its own unique identity. Multiple elements cannot share the same id.

Syntax eg:-

```
<p id="html"> This is HTML tutorial </p>
<p id="python"> This is python tutorial </p>
```

→ The class attribute

Used to specify a class to an element. It is not unique, multiple elements can share the same class.

→ The title attribute

Used to give a title to an HTML element. When the element is being a tooltip of the cursor comes and shows the written title.

Syntax

e.g:- <h4 title="Hello, World"> TITLE ATTRIBUTE </p>

Output

TITLE ATTRIBUTE

→ The style attribute

Used to give styling to an element. Mainly used in CSS, if we want to style an element HTML element we use the style element in inline of an element.

* Internationalization Attributes

→ The dir Attribute

It is used to tell the browser in which direction should the text flow. There are two types of dir attributes

- ltr - left to right
- rtl - right to left

→ The lang attribute
It is replaced by xml:lang attribute. Earlier used to display the language of the web page.

→ The xml:lang attribute
Value for this should be ISO - 639 country code.

* Generic Attributes

→ Align attribute

↳ This attribute uses values left, right and center values to indicate the text accordingly. Used for horizontal align tags.

→ Valign attribute

This attribute uses values top, middle and bottom value to indicate text accordingly. Used for vertical align tags.

→ bgcolor attribute

Uses values numeric, hexadecimal, RGB code values to change elements background color accordingly.

→ width attribute

Uses numeric values to change the elements width according to the numeric value.

→ height attribute
Uses numeric values to change the elements height according to the numeric values.

→ src attribute

↳ src attribute is mostly used by img element. It specifies the URL path to that element that is to be displayed.

- Absolute path: This path contains the path of the external content.

- Relative path: This path contains the path of the internal content only. Relative paths are mostly used because content cannot be suddenly removed or changed. These are placed within a separate folder and that path is very well known to us.

→ alt attribute

Mostly used by the img attribute. It specifies the alternate text to that image that is to be displayed. For some issues, if that image is not visible then alt text helps to tell us about the description of that image.

HTML Links

- These are specified by `<a>` tag. Also known as anchor tag.
- HTML links are also known as hyperlinks.
- These are used to link one document with another document.

Syntax :-

```
<a href = "link(path)">
</a>
```

* href attribute

Without this tag, we are unable to go to the next page of the next document. This attribute is compulsorily used by the `<a>` tag. This attribute contains a URL path.

* target attribute

By default if we open any link then the page will be displayed in the current browser window. But we can change these settings using `@target` attribute. It tells us where we want our linked document to be opened. Target attr. uses any of these values.

- `_blank` : Opens linked document in a new window.
- `_top` : Opens document in the full body of the window.
- `_self` : Opens document in the same window.
- `_parent` : Opens linked document in a parent frame

- * To link a particular section of a web page :-
- Use the name attribute or id attribute
- Use hyperlink with # place where you want to go on a webpage.

* Link colors :-

→ Activated Active :-

It is in red with an underline.

→ Visited :-

It is in purple and underlined.

→ Unvisited :-

It is in blue and underlined.

- Using CSS, we can change the color of the links.

X HTML comments

→ Piece of code ignored by a web browser. Help us understand the code.

→ Shortcut key is "Ctrl + /"

* Single comments

Syntax `<!-- Single line -->`

* Multi-line comments

`<!--`
This is a
multiline comment
-->

X HTML Images

- `` :- Self closing Tag.
- used to add an image to the webpage.
- `` tag mandatory uses attributes i.e.
"alt attribute" a text description for an image of
"src attribute" for the location path of an
image. These attributes provide additional info about
the image tag.
- .png , jpeg and gif are extensions used by image

* Setting image attributes:

- "src attribute" for the location path of an image

Syntax
Eg:-

```
<img src = "images/profile-picture" />
```

If we want to find the location of our image.
Right click on your image → Go to properties →
Check location in properties.

- "alt attribute" a text description for an image

Syntax
Eg:-

```
<img src = "images/profile-picture" alt = "Testing  
Image" />
```

* Setting image width / height attribute :

`` tag uses the height & width attribute to set the height and width of an image. Values for the image will be in pixels or percentage and value should be placed in double quotes.

Syntax
Eg:-

```
<img src = "image.png" alt = "Image Description"  
width = "300" height = "100"  
/>
```

- Now usually the styling is done using css.

X HTML Lists

HTML lists are used to display the data in an ordered or unordered form. List contains one or more elements.

- An unordered list
- An ordered list
- An definition list

* Unordered list

- It has no sequence.
- They are more like bullet points
- Created using `` tag where for items we use `` tag also known as list item tag.

Input

Syntax
Eg:-
`
 Pen
 Pencil
 Eraser
`

Output

- Pen
- Pencil
- Eraser

→ Setting Type attribute

- Disc
- Square
- Circle

* Ordered List

- They have a sequence.
- Created using `` tag and `` tag is used.
- Numbered list

Syntax
Eg:-

Input

```
<ol>
<li> Mango </li>
<li> Orange </li>
<li> Jitki </li>
</ol>
```

Output

1. Mango
2. Orange
3. Jitki

→ Setting type attribute

1. Uppercase Roman Numerals
2. Lowercase Roman Numerals
3. Numerals
4. Lowercase letters
5. Uppercase letters

Syntax

Eg:-

```
<ol type="A" start="3">
<li> Pen </li>
<li> Pencil </li>
</ol>
```

Output

- C. Pen
- D. Pencil

* Definition List

- Works same as the dictionary
- Also known as Description list
- Used to define a term.

1. <dl> tag used to define a definition list

Eg:-

```
<dl>
  //content
</dl>
```

2. <dt> tag is used to define for terms/names

Eg:-

```
<dl>
  <dt>
    //definition term
  </dt>
</dl>
```

3. `<dd>` tag is used to describe terms/names.

Eg:- `<dl>`

```
<dt> //definition term </dt>
<dd> //describing the term </dd>
</dl>
```

Syntax

Eg:-

```
<dl>
<dt> Happiness </dt>
<dd> Cant impossible to find </dd>
<dt> Sorrow </dt>
<dd> Found everywhere </dd>
</dl>
```

HTML Tables

- Used to define a table on an HTML page using `<table>`.
- `<th>` tag is used for heading in a table.
- `<tr>` is used for rows.
- `<td>` is used for columns.

```
<table>
<tr>
<th> Name </th>
<th> Age </th>
</tr>
<tr>
<td> Harry </td>
<td> 64 </td>
</tr>
</table>
```

HTML Block Elements

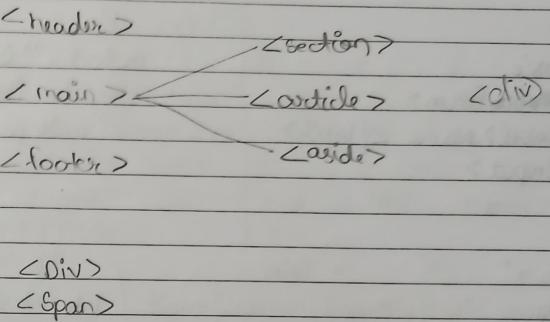
- Start on a New Line.
- Take the entire width of the screen.

- `<h1>`, `<h2>`, `<h3>`, `<h4>`, `<h5>`, `<h6>`
- `<p>`
- `<hr>`
- `<address>`
- `<article>`
- `<aside>`
- `<blockquote>`
- `<canvas>`
- `<dd>`
- `<div>`
- `<dt>`
- `<fieldset>`
- `<figcaption>`
- `<figure>`
- `<footer>`
- `<form>`
- `<header>`
- `<i>`
- `<main>`
- `<nav>`
- `<noscript>`
- ``
- ``
- `<pre>`
- `<section>`
- `<table>`
- `<video>`

HTML Inline elements

- Don't start on a new line
- only takes the width required to cover the content
- <a>
- <abbr>
- <acronym>
- <button>
-

- <big>
- <bdo>
-
- <cite>
- <code>
- <dfn>
- <i>
-
-
- <input>
- <kbd>
- <label>
- <map>
- <object>
- <output>
- <tt>
- <time>
- <samp>
- <script>
- <select>
- <small>
-
-
- <sub>
- <sup>
- <textarea>



HTML Forms

classmate

Date
Page

another
web page

* Basic

→ <form>

<label> Name </label>

<input>

<form action = " " method = " GET "

/Post "

enc-type = " multipart/form-data "

→ for = " " → label

Type = " text / password / numbers / email / date / checkbox "

name = " " → T.P.

id = " " → Same as for

only one can be used at a time
value = " " → Sets default value

placeholder = " " → Background for label

Required → Compulsory to enter

→ In number Type :-

* min and max can be saved. Eg:-
min = " 1 " max = " 200 ".

* Step can also be setup. Eg:-

Step = " 5 ". Increases the value everytime by 5.

→ In Date type :-

max and min can also be setup.
Eg:- min = " 2014-06-10 "

→ In radio type :-

" name " should be same : eg: gender.
Setting value shows the one in the browser

* Select & textarea dont use input type

classmate

Date
Page

multiple option
can be used to
allow to select
more.

→ Select element

Example:

<label for = " eyeColor " > Eye Color </label >
<select name = " eyeColor " id = " eyeColor " >
 <option value = " Green " > Green </option >
 <option value = " Red " > Red </option >
</select >

→ Textarea element

Example:-

<label for = " bio " > Bio </label >
<textarea id = " bio " name = " bio " > </textarea >

→ hidden attribute

Example:-

<input type = " hidden " value = " hi " name = " hidden " >

→ File attribute

Example:-

<label for = " file " > File </label >
<input id = " file " type = " File " name = " file " >

→ Phone attribute

<label for = " phone " > Phone </label >

<input id = " phone " type = " phone " name = " phone " >

→ URL attribute

```
<label for="url">URL </label>  
<input type="url" id="url" name="url" />
```

→ color attribute

```
<label for="color">Color </label>  
<input type="color" id="color" id="color" />
```

```
<input type="button">  
<input type="checkbox">  
<input type="color">  
<input type="date">  
<input type="datetime-local">  
<input type="email">  
<input type="file">  
<input type="hidden">  
<input type="image">  
<input type="month">  
<input type="number">  
<input type="password">  
<input type="radio">  
<input type="range">  
<input type="reset">  
<input type="search">  
<input type="submit">  
<input type="tel">  
<input type="text">  
<input type="time">  
<input type="url">  
<input type="week">
```

```
<button type="button" onclick="alert(' ')>Click me</button>
```