

HTML - invented by Tim Berners Lee in 1991

HTML stands for Hyper text markup language

Hyper text means such a text which links another documents.

Markup means a set of elements or tags.

Note pad is used to write a HTML code.

HTML consists of a set of tags used to display content in webpages

HTML page structure

```
<html>
```

```
  <head>
```

```
    <title>
```

```
  </title>
```

```
  </head>
```

```
  <body>
```

```
    "Some Contents Here"
```

```
  </body>
```

```
</html>
```



## HTML elements or Tags

These are the hidden keywords within a web page that define how your web browser must format and display the content. These are of 2 types -

- 1- Container tag - which has some content.
- 2- Empty tag or Self closing tag.

Nested HTML elements - which has another HTML element inside it.

Note - HTML is a case-insensitive (not case sensitive)

Attributes - Every HTML has an added feature too called attributes.

"An attribute is used to define the characteristics of an HTML element and is placed inside the element's opening tag. It usually comes in name = "value"."

HTML Headings -

<h1>                      </h1> - Largest

<h6>                      </h6> - Smallest



### Some Tags

<hr>		horizontal rule
<p>	</p>	paragraph
<b>	</b>	bold
<i>	</i>	italic
<u>	</u>	underline
<em>	</em>	italic
<strong>	</strong>	bold
<small>	</small>	small
<ins>	</ins>	underline
<sub>	</sub>	subscripted
<sup>	</sup>	superscripted
<mark>	</mark>	highlight
<del>	</del>	strike line
<q>	</q>	quotation
<abbr>	</abbr>	abbreviation
 		To break a line

### HTML Comments

<!-- Comment -->

Ex -

<!-- It makes the character bold -->



## HTML Links

Links allow users to click their way from page to page. You can click on a link and jump to another document.

Its tag is -

```
<a href="url"></a>
```

anchor                      hypertext reference

Tag  
<a> </a>

Attribute  
~~href~~ href  
target

Specifies where u want to open the linked docu.

- self ✓
- blank ✓
- parent
- top

## Absolute URL vs Relative URL

with http:// or https://

without "https://www"

HTML Links are also used to create bookmarks. so that readers can jump to specific parts of webpage.

When the link is clicked, the page will scroll down or up to the location with the bookmark.

It is useful when webpage is very large.



Cid = "value")

- #1 - Use the id attribute to define bookmarks
- #2 - Use the href attribute (href = "#value") to link to the bookmark

Ex -

```
<a href="#C4"> Jump to chapter 4 </a>
```

```
<p id="C4"> Hi, This is a chapter 4  
and _____ </p>
```

### HTML images (empty tag)

```
<img src="" >
```

### Attributes -

- 1- src - specifies the path to the images.
- 2- alt - specifies the alternate text for the image when browser does not support the image.
- 3- width -
- 4- height -
- 5- style = "property : value;"

```
style = "float : right ; width : 100px ;"
```

let the image float to the right or left to the text



Example =

```
<p> <img src = 'smiley.gif' style = "float : left;" /> Hi!!
```



Hi!!!

## HTML Tables

```
<table>
```

```
<tr>
```

```
<th>
```

```
<th>
```

```
</tr>
```

```
<tr>
```

```
<td>
```

```
<td>
```

```
</tr>
```

```
</table>
```

Its style can be designed by style attribute or by using CSS



style = "property : value;"

By CSS-

table, th, td {

border : 1px solid black;

~~border~~ border-collapse : collapse;

?

## Property used in table designing

border

border-collapse

Padding -

border-spacing

colspan (attribute)

rowspan (attribute)

margin

Some other tags used for tables are

<thead> - groups the header content in a table

<tbody> - groups the body content in a table

<tfoot> - groups the footer content in a table

<caption> defines a table caption (title)

It must be typed inside the table tag  
on first line

These are optional. These are used to style the table only and to group to understand.







## Some property of list

- 1- Use the CSS property, float: left to display a list horizontally.
- 2- Use the type attribute to define the list item marker (circle, square, disc, none for ul)  

```
<ul type="disc">  
  <li> Home </li>  
  <li> About </li>  
</ul>
```

- 3- For ol, use the type attribute to define numbering type =
  - 1
  - A
  - a
  - i
  - I

- 4- For ordered list, there is a start attribute to start the counting from specified number

```
<ol type="1" start="50">  
  <li> Home </li>  
  <li> About </li>  
</ol>
```

It will show in browsers -  
51. Home  
52. About



## HTML Block and inline elements

A block element always starts on a new line. It takes the full width available.

Ex- `<div>`            `</div>`  
      `<p>`                `</p>`  
      `<dd>`            `</dd>`  
      `<dt>`            `</dt>`  
      `<form>`           `</form>`  
      `<li>`             `</li>`  
      `<nav>`            `</nav>`

Inline elements does not start on a new line. It takes up as much width as necessary.

Ex- `<span>`            `</span>`  
      `<a>`               `</a>`  
      `<b>`                `</b>`  
      `<i>`                `</i>`



## Class Attribute

- \* The class attribute is used to specify a class for an HTML element, is often used in styling by CSS and accessing by JavaScript
- \* Many elements can have same class value
- \* An element can have one or more class value, separated by white space  
Ex- `<p class="city name"> mai hu na </p>`

two class value

- \* To access the class, CSS uses dot (.)  
ex- `.city {`

`background-color: red;`

`color: blue;`

`}`

- \* Javascript uses the `getElementByClassName()` method to access the class

Ex- `document.getElementsByClassName("city");`

- \* Class name (value) is case sensitive

## Id Attribute

- \* It is used to specify a unique id for an HTML element.
- \* The id attribute is used by CSS in style and by JavaScript in manipulation
- \* It is accessed by CSS, using the hash (#)



- \* It is also a case sensitive
- \* Its name can not start with a number.
- \* Its does not contain white space in naming
- \* Used to create bookmarks.
- \* Javascript access it by getElementByID() method

# HTML IFRAMES

An HTML iframe is used to display a webpage within a web page. The

`<iframe>` tag specifies an inline frame

```
<iframe src = "url" title = "description" >  
</iframe>
```

## Attributes-

width -

height -

src -

display text when you hover over an HTML element.

title - shows tool tip text when the mouse over the text.

style - used to add more style by CSS

name - specifies a name for an HTML element, used to reference the

element in javascript.



Note - The target attribute of a link can also use the name of iframe tag as its value. It makes to open the link information in iframe without opening new page or using same page.

```
Ex - <iframe src="url" name="Raj">  
      </iframe>  
<p> <a href="www.ram.com" target="Raj">  
      information </a> </p>
```

# HTML HEAD

HTML `<head>` element is a container for the following element -

- ★ `<style>` `</style>` - used by CSS to give style to webpage
- ★ `<title>` `</title>` - to give the title of webpage which shown on tab
- ★ `<link>` - used to link external files as CSS with attribute `rel` and `href`
- ★ `<script>` `</script>` used to define javascript as well as to link js file
- ★ `<meta>` - is used to specify the character set, page description, keywords, author of the document and viewport settings



Ex- To make a responsive website  
<meta charset="UTF-8" name="viewport" content="width=device-width, initial-scale=1.0" >

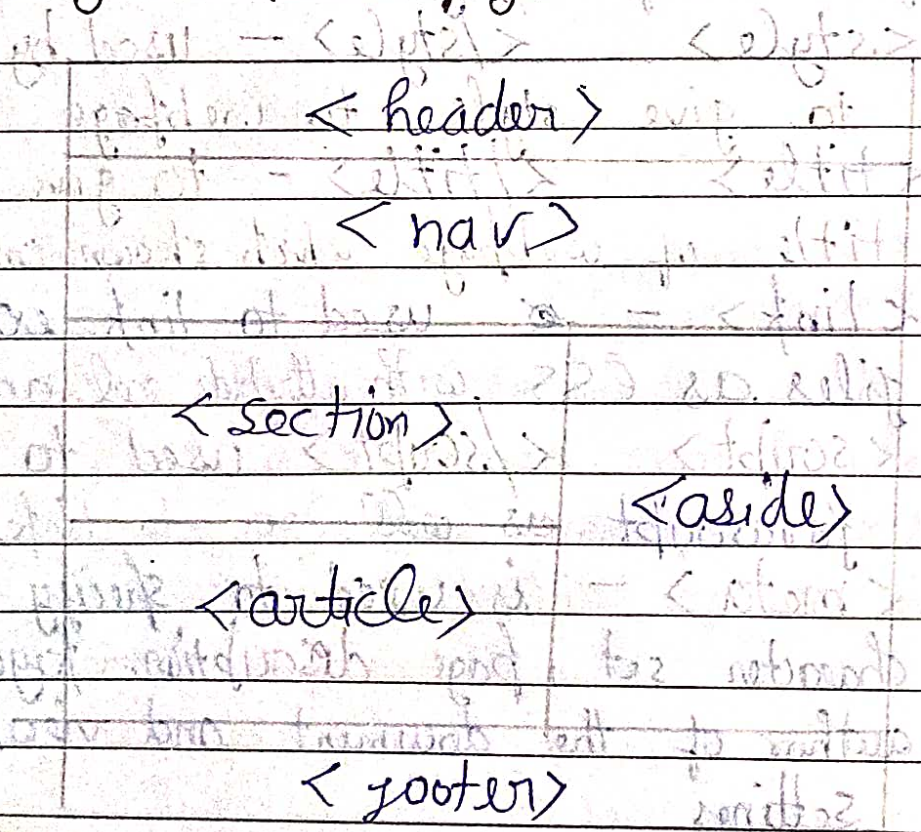
HTML Semantic Elements - A semantic elements clearly defines its content

Ex- <form>, <table>, <article>

Non-semantic elements - A non-semantic elements tells nothing about its content.

Ex- <div>, <span>

### HTML Layout Layout of webpage





A header element contains-  
one or more heading  
logo or icon  
authorship information

A footer element contains-  
authorship information  
copyright information  
contact information  
sitemap  
back to top links  
related documents

HTML entities (character entities)  
are used to represent reserved  
character in HTML

A character entity looks like  
& entity-name;

or  
& # entity-number;

Some character entities

- |                  |                     |
|------------------|---------------------|
| &nbsp;nbsp;nbsp; | non-breaking space  |
| &lt;             | < (less than)       |
| &gt;             | > (greater than)    |
| &amp;            | & (ampersand)       |
| &copy;           | © (copyright)       |
| &reg;            | ® (registered mark) |



Escaped (cont)  
P. Euro € (euro)

Entities are used to display

- \* Reserved character
- \* Special character
- \* Emojis
- \* Symbols

# HTML FORMS

An HTML form is used to collect user input. The user input is most often sent to a server for processing.

<form>

form elements

</form>

Form attribute

action  
method — get  
          — post



## Form Elements

① `<input type = " " name = " " >`

used to create graphical submit button

- color
- image
- datetime-local
- hidden
- month
- search
- week
- ~~readonly~~

- text
- number
- tel with having a pattern attribute - `pattern = "[0-9]{3,4}"`  
`Co-975227`  
`Co-975337`
- email
- password Format = "123 95-369"
- file
- checkbox
- radio
- date - have min & max attribute
- time
- url
- submit
- button
- reset

### Some Attributes -

- type - tells what type of value an input tag store
- name - uniquely identify a input tag
- value - used to set initial value of an input tag
- placeholder - used to put a hint.

② `<textarea>` This is required when the user requires to give details larger than a single line

Ex: `<textarea rows="50" cols="40" name="description">`  
Enter description here.  
`</textarea>`



\* When the type of input is radio

```
</form>  
<legend> gender </legend>  
<p> Male:  
<input type="radio" name="gender">  
Female <input type="radio" name="gender">  
</p>  
</form>
```

Note- Radio buttons are used when one option is required to select out of many one.  
The value of name will be same for each radio buttons.

\* When the type of input is checkbox  
checkbox is used when there is more than one option, user can select.

```
</form>  
<p>  
<input type="checkbox" name="car1"> Car  
<input type="checkbox" name="car2"> Jeep  
<input type="checkbox" name="car3"> Thor  
</p>  
</form>
```



Date \_\_\_\_\_  
Page \_\_\_\_\_

## Form Element - `<select>` `</select>`

The `select` element defines a dropdown list -

```
<form>
```

```
<p> Card Type:
```

```
<select name="card-type" id="card-type">
```

```
<option value="">--select a card type</option>
```

```
<option value="visa"> Visa </option>
```

```
<option value="rupee"> Rupee </option>
```

```
<option value="mastercard"> Mastercard </option>
```

```
</select>
```

```
</p>
```

```
</form>
```

## Some other form elements

```
<legend>
```

```
<fieldset>
```

```
<legend>
```

```
<button>
```

```
<label>
```

## Some Useful attribute with no value

`readonly` - It can not be modified by user. User can tab to it, highlight it and copy it.

`disabled` - It makes the input field unusable and unclickable.

`size="20"` - It specifies the visible width in characters of an input field.



min = " " work with date, number, month, time etc

max = " " work with same as above

multiple - specifies that the user is allowed to enter more than one value in an input field

required - specifies that an input field must be filled out before submitting the form

step = " " It specifies the legal number intervals for an input field

autofocus - automatically gets focus in an input field

## HTML Media

Multimedia on the web is sound, music, videos, movies and animation

### HTML video tag

```
<video src="video/mp4" width=" " height=" " controls autoplay muted poster="img.jpg" loop >
```

```
</video>
```



## HTML Audio Tag

```
<audio src="/audio.mp3" controls loop  
autoplay >  
Audio  
</audio>
```

## HTML Youtube

- 1 Upload the video to Youtube
- 2 Copy the ~~href~~ (video id)
- 3 define <iframe> element.

```
<iframe src="https://www.youtube.com/  
embed/tg bNym77vqy" width=""  
mandatory height=""  
</iframe>
```

The easiest way to play videos in HTML is to use Youtube

★ Marquee Tag is used to move the text

```
<marquee> This text will move </marquee>
```



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## Some attributes of marquee tag

behavior = " " it decides how the text will move

- scroll (by default)
- slide
- alternate

direction = " " it decides the direction of moving text

- right
- up
- down
- left (by default)

scrollamount = " " - decides the speed of scrolling text

scrolldelay = " " defines scroll delay in second

loop = " " - defines loop for marquee content in number

onmouseover = "stop()" - it stop the text when a touch the text inside of marquee tag

onmouseout = "start()" - it again start the text move.

To <sup>download</sup> print a page of a browser  
<button onclick="print()" > Print </button>