

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 book 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> <vid>

full form = <div> <div>

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
 	bold
<i> </i>	italic
<u> </u>	underline
 	italic
 	bold
<small> </small>	small
<ins> </ins>	underline
	subscripted
	super-scripted
<mark> </mark>	highlight
 	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 -

`[text]`

anchor

hypertext reference

Tag

`<a>`

Attribute

`href="url"`

Target

Specifies where you 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.

(id = "value")

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

Ex -

 Jump to chapter 4

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

HTML images (empty tag)

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>   
    Hiiii. </p>
```



Hiiii.

HTML <Tables>

```
<table>
```

```
    <tr>
```

```
        <th>
```

```
        <th>
```

```
    </tr>
```

```
    <tr>
```

```
        <td>
```

```
        <td>
```

```
    </tr>
```

```
    <tr>
```

```
        <td>
```

```
</table>
```

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

table { border-collapse: collapse; }
tr { border-bottom: 1px solid black; }
td { padding: 5px; }

style = "property : value;"

By CSS -

table, th, td {

border : 1px solid black;

~~width 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 placed inside the table tag
or on first line.

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

HTML lists-

allows to group a set of related items in lists

(i) Unordered list - has attribute type

```
<ul>
    <li>           </li>
    <li>           </li>
    <li>           </li>
</ul>
```

(ii) Ordered list - has attribute type and start

```
<ol>
    <li>           </li>
    <li>           </li>
</ol>
```

(iii) Description list - or definition list

```
<dl>
    <dt>           </dt>
    <dd>           </dd>
```

```
<dt>           </dt>
</dd>           </dd>
```

```
</dl>
```

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>`
`` ``
`<nav>` `</nav>`

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

Ex - `` ``
`<a>` ``
`` ``
`<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 some class value
- * An element can have one or more class value, separated by white space
Ex- `<p class="city name"> mumbai na </p>` two class value

A- To access the class, CSS uses dot(.)
ex- .city {

background-color: red;
color: blue;

}

- A- Javascript uses the ~~get~~Element By Class Name () method to access the class
- Ex- `document.getElementById("city");`

A- 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.
- * It does not contain white space in naming
- * Used to create bookmarks.
- * Javascript access it by getElement By ID method

FRAMES

An `<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="100"` height="100"

`height="100"` width="100" when you
`src="url"` display text when you
hover over an HTML element.

`title` - shows tooltip text when the mouse over the tool

`style` - used to add more style by CSS

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

`<form>` element. An `iframe` is put into a `form` element.

Advantages of `iframe` -
1) It is used to display one part of a website.

2) It is used to have more than one page at a time.

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> `
information ` </p>`

MULITIHEAD

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>`, ``.

HTML5 Layout

Layout of webpage

header - `<header>` `<h1>`

header - `<header>`

`<nav>`

header - `<header>`

`<section>`

`<aside>`

`<article>`

`<footer>`

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

 non-breaking space

< < (less than)

> > (greater than)

& & (ampersand)

© © (copyright)

® ® (registered mark)

Event
& Event

& (cont.)
& (cont.)

Entities are used to display

- * Reserved character
- * Special character
- * Entities
- * 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

~~donby~~

- number

- tel

- email

- password

- file

- checkbox

- radio

- date

- time

- week

- submit

- button

- reset

with having a pattern

attribute =

pattern=" [0-9]{3,3}

[0-9]{2,2},

[0-9]{3,3}

format "123 95-34"

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="90" 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> List of cars - <br>
    <input type="checkbox" name="car"> Car
    <input type="checkbox" name="car2"> Cab
    <input type="checkbox" name="car3"> Thor
  </p>
</form>
```

② Form Element - <select> </select>

The select element defines a dropdown list -

```
<form>           <label> Card Type </label>
  <p> Card Type: </p>
  <select name="card-type" id="card-type">
    <option value=""> --Select a card type</option>
    <option value="visa"> Visa </option>
    <option value="rabit"> Raby </option>
    <option value="mastercard"> Mastercard</option>
  </select>
</p>
</form>
```

Some other form elements

<legend> A legend, describing the form.

<fieldset> groups related elements in a form

<label> defines a caption for a <fieldset> element

<button>

<input type="button" value="Submit" />

Some Useful attributes 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 = " " works with date, number, month, time

max = " " works with same as above

multiple - specifies that the user is allowed

to enter more than one value in
an input field it works with email / file.

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: sound,
music, videos, movies and animation

HTML video tag

<video src="video/mp4" width=" " height=" "
controls autoplay muted>

poster="img.jpg" </video>

video tag on time.

</video>

list item \rightarrow action - bolded

bolded

list item \rightarrow action - "02" - 2nd

bolded no p

HTML Audio Tag

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

HTML Youtube

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

```
<iframe src="https://www.youtube.com/  
embed/tgBNymZ7Vqy" 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>
```

Some attributes of marquee tag

behavior = " " if 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 = "1" - decides the speed of scrolling text

scrolldelay = " " defines scroll delay in second

loop = " " defines loop for marquee content in number

Onmouseover = "stop()" - it stops the text when u touch the text inside of marquee

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

To print/^{download} a page of a browser
`<button onclick="print()"> Print </button>`