

WHAT IS HTML?

HTML provides a way of displaying Web pages with text and images or multimedia content. HTML is not a programming language, but a markup language. An HTML file is a text file containing small markup tags. The markup tags tell the Web browser, such as Mozilla Firefox or Google Chrome, how to display the page. An HTML file must have an htm or html file extension. HTML stands for HyperText Markup Language.

HTML PAGES ARE OF TWO TYPES:

- ▶ *Static Pages* - Static pages, as the name indicates, comprise static content (text or images). So you can only see the contents of a web page without being able to have any interaction with it.
- ▶ *Dynamic Pages* - Dynamic pages are those where the content of the web page depend on user input. So interaction with the user is required in order to display the web page. For example, consider a web page which requires a number to be entered from the user in order to find out if it is even or odd. When the user enters the number and clicks on the appropriate button, the number is sent to the web server, which in turn returns the result to the user in an HTML page.

STRONG

The ` ` tag indicates that its content has strong importance.

Ex:

```
<body>
```

```
<strong> Hello I am an example. </strong>
```

`` HTML 5 enables to create more `` interactive websites by embedding audio, video and graphics on the web page. The purpose of HTML5 is primarily to make it easier for web developers.

```
</body>
```

EMPHASIS

The ` ` indicates emphasis that subtly changes the meaning of a sentence.

BLOCKQUOTE

The `<blockquote>..... </blockquote>` is used for long and multiline quotations.

Q

The `<q>..... </q>` element is used for shorter quotes that sit within a paragraph.

TAGS

A tag is a bit of text that acts as a point demarcation. To create a tag, HTML gives certain characters special meaning: the angle brackets `<` and `>`.

Putting characters within angle brackets creates a tag.

`<h1>` A heading `</h1>`

THERE ARE TWO TAGS:

Start tag or opening tag and End tag or closing tag. An end tag always matches a start tag, except that it has an extra forward slash after the opening angle bracket.

`<h1>` A heading `</h1>`

TYPE OF TAG

- ▶ **Container Tag** – Which has opening and closing Tag.

Ex: -

```
<html> ..... </html>  
<head> ..... </head>  
<body> ..... </body>
```

- ▶ **Empty Tag** – which has only opening tag.

Ex: -

```
<br>  
<area>  
<base>  
<hr>  
<img>  
<input>
```

ELEMENT

The combination of a start and end tags define an element. Everything between the two tags is referred to as the contents of the element.

`<h1> A heading </h1>`

ATTRIBUTE

Attributes provide additional information about the contents of an element. They appear on the opening tag of the element and are made up of two parts: - a name and a value, separated by an equals sign.

```
<p lang = "en-us">Paragraph in English </p>
```

The attribute name indicates what kind of extra information you are supplying about the element's content. It should be written in lowercase.

The value is the information or setting for the attribute. It should be placed in double quotes. Different attributes can have different values.

In this example an attribute called lang is used to indicate the language used in this element. The value of this attribute on this page specifies it is in US English.

Note: - HTML5 allows you to use uppercase attribute names and omit the quote marks, but this is not recommended.

HTML TAG

<HTML> is a starting tag. To delimit the text inside, add a closing tag by adding a forward slash “/” to the starting tag. Most but not all tags have a closing tag. It is necessary to write the code for an HTML page between <HTML> and </HTML>. This <HTML> tells the browser is 'this is the start of an HTML document' and </HTML> 'this is the end of an HTML document'.

```
<html>
```

```
.....
```

```
.....
```

```
.....
```

```
</html>
```

TITLE TAG

The contents of the <title> element are either shown in the top of the browser, above where you usually type in the URL of the page you want to visit, or on the tab for that page (if your browser uses tabs to allow you to view multiple pages at the same time). <title> is opening title tag and </title> closing title tag.

```
<html>
```

```
  <head>
```

```
    <title> Hello </title>
```

```
  </head>
```

```
</html>
```

BODY TAG

Everything inside this element is shown inside the main browser window. `<body>` is opening body tag and `</body>` is closing tag.

```
<html>
```

```
  <head>
```

```
    <title> Hello </title>
```

```
  </head>
```

```
  <body>
```

```
    <h1> Body of Page </h1>
```

```
  </body>
```

```
</html>
```

HTML 5

HTML 5 enables to create more interactive websites by embedding audio, video and graphics on the web page.

The purpose of HTML5 is primarily to make it easier for web developers.

New features:

- ▶ Browser Support
- ▶ Geolocation
- ▶ Offline Application Cache
- ▶ Web Storage
- ▶ Error Handling
- ▶ New Application Programming Interface (API)
- ▶ New Structure

APPLICATION PROGRAMMING INTERFACE



- ▶ 2D drawing on a web page
- ▶ Drag and Drop
- ▶ Timed Media Playback
- ▶ Browser History Management

NEW STRUCTURE

▶<article>

▶<aside>

▶<header>

▶<details>

▶<dialog> and more

```
<!DOCTYPE html>  
<html>  
  <head>  
    <title> Hello </title>  
  </head>  
  <body>  
    <h1> Body of Page </h1>  
  </body>  
</html>
```

DOCTYPE DECLARATION

`<!DOCTYPE html>`

It is an instruction to the web browser about what version of HTML the page is written in.

The `<!DOCTYPE>` declaration is not case sensitive.

Version	Year
HTML	1991
HTML 2.0	1995
HTML 3.2	1997
HTML 4.01	1999
XHTML	2000
HTML 5	2014

HTML 4.01

HTML 4.01 Strict

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"  
"http://www.w3.org/TR/html4/strict.dtd">
```

HTML 4.01 Transitional

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"  
"http://www.w3.org/TR/html4/loose.dtd">
```

HTML 4.01 Frameset

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN"  
"http://www.w3.org/TR/html4/frameset.dtd">
```

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"  
"http://www.w3.org/TR/html4/loose.dtd">
```

```
<html>
```

```
  <head>
```

```
    <title> Hello </title>
```

```
  </head>
```

```
  <body>
```

```
    <h1> Body of Page </h1>
```

```
  </body>
```

```
</html>
```

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The
 tag in the HTML code inserts a line break in the text.

HEADINGS

Heading defines the format and structure of a document. There are six heading tag: -

- ▶ `<h1> </h1>`
- ▶ `<h2> </h2>`
- ▶ `<h3> </h3>`
- ▶ `<h4> </h4>`
- ▶ `<h5> </h5>`
- ▶ `<h6> </h6>`

Any text inside these tags is displayed differently depending on the heading number.

Note : -

1. `<h1>..... </h1>` is largest heading tag and `<h6>..... </h6>` is smallest.
2. Heading get their own line on the web pages by starting from a new line.

PARAGRAPH

The `<p>` tag is used to create new paragraph on web page. It has a closing tag `</p>` which is optional because a paragraph automatically ends when we start another paragraph.

`<p>` `</p>`

Note : -

- ▶ Number of line in a paragraph depends on the size of web browser window
- ▶ If we resize the browser window, the number of lines in this paragraph will change.

SUBSCRIPT



A subscript is a text that appears smaller than a regular text.

The `_{.....}` tag is used to create a subscript on a web page.

Yasham_{Academy}

SUPERSCRIPT

A Superscript is a text that appears smaller size above the regular text.

The `^{.....}` tag is used to create a subscript on a web page.

Yasham^{Academy}

HORIZONTAL RULES

The `<hr>` tag is used to create a horizontal rule on the web page. It is an empty tag.

The web browser starts a horizontal rule from a new line, and any text that follow this tag is also displayed in a new line.

The `.... ` tag is used to render the text in bold style.

ITALIC

The `<i>..... </i>` tag is used to render the text as italic.

ALIGN

- ▶ Center – Aligns the whole text to the center of the web page

align = “center”

- ▶ Left – Aligns the whole text to the left side of the web page

align = “left”

- ▶ Right – Aligns the whole text to the right side of the web page

align = “right”

- ▶ Justify – Justifies the whole text and also indents the first line

align = “justify”

- ▶ With Heading
`<h1 align = “right” > </h1>`
- ▶ With Paragraph
`<p align = “right” > </p>`
- ▶ With Horizontal Rule
`<hr align = “right”>`

STRONG

The ` ` tag indicates that its content has strong importance.

EMPHASIS

The `` `` indicates emphasis that subtly changes the meaning of a sentence.

BLOCKQUOTE

The `<blockquote>..... </blockquote>` is used for long and multiline quotations.

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ABBREVIATION AND ACRONYM



The `<abbr> </abbr>` tag defines an abbreviation or an acronym. A title attribute on the opening tag is used to specify the full term.

`<abbr title = “YashamAcademy”> YA </abbr>` is awesome.

ADDRESS

The `<address> </address>` tag is used to contain contact details for the author/owner of the page/article/web site.

INS AND DEL

The `<ins> </ins>` tag can be used to show content that has been inserted into a document, while the ` ` tag can show text that has been deleted from it.

The `<s> </s>` tag specifies text that is no longer correct, accurate or relevant.

META

`<meta>` tag is used to add a description of HTML page. The description that we add about the web page using the `<meta>` is used by search engines for indexing and ranking the web page.

`<meta>` tags always go inside the `<head>` element.

Character encoding for the HTML document

`<meta charset="UTF-8">`

Attribute	Value	Description
charset	character_set	Specifies the character encoding for the HTML document
content	text	Gives the value associated with the http-equiv or name attribute
http-equiv	content-type default-style refresh	Provides an HTTP header for the information/value of the content attribute
name	application-name author description generator keywords	Specifies a name for the metadata

<meta name = “author” >

DESCRIPTION OF WEB PAGE

Define a description of your web page

```
<meta name="description" content="A blog about programming language">
```

KEYWORDS FOR SEARCH ENGINES

```
<meta name="keywords" content="HTML, C, Java, Ruby, JS,  
SQL">
```

AUTHOR OF WEB PAGE



<meta name="author" content="Yasham Academy">

REFRESH WEB PAGE

```
<meta http-equiv="refresh" content="5">
```

UNORDERED LIST

An unordered list is used to create a bulleted list of items.

The `..... ` tag is used to define an unordered list; whereas, the `...` tag is used to define the items of the list.

Ex: -

```
<ul>  
  <li>Linux</li>  
  <li>Windows</li>  
  <li>Mac</li>  
  <li>Android</li>  
</ul>
```

- ▶ Linux
- ▶ Windows
- ▶ Mac
- ▶ Android

ORDERED LIST

An ordered list displays a list of item using numbers or letters in either ascending or descending order.

The `....` tag is used to define an ordered list; whereas the `....` tag is used to define the items of list.

Ex:

```
<ol>
```

```
  <li>Linux</li>
```

```
  <li>Windows</li>
```

```
  <li>Mac</li>
```

```
  <li>Android</li>
```

```
</ol>
```


Attribute	Value
Type	1, A, a, I, i
Start	Any numeric value
Reversed	Reversed

```
<ol type=1>  
  <li>Linux</li>  
  <li>Windows</li>  
  <li>Mac</li>  
  <li>Android</li>  
</ol>
```

DEFINITION LIST

A definition list is a list of terms, with a definition of each term.

We can create definition list by using the `<dl>..... </dl>` with `<dt>` and `<dd>` tag.

The `<dt>....</dt>` tag is used to define the term; whereas, the `<dd>` tag is used to give the term's definition.

```
<dl>
```

```
    <dt>College</dt>
```

```
    <dd>A boring place</dd>
```

```
    <dt>Library</dt>
```

```
    <dd>Learn as much as you can</dd>
```

```
    <dt>Railway Station</dt>
```

```
    <dd>too much crowded</dd>
```

```
</dl>
```

- ▶ `<table>.....</table>` tags represents an HTML table.
 - `<th>....</th>` tags is used to add a column heading in a column.
 - `<tr>....</tr>` tags represents a row in the table
 - `<td>.....</td>` tags are used to add data value in the column

<table>

<th>Name</th>	<th>Roll</th>	<th>Result</th>	
<td>Rahul</td>	<td>101</td>	<td>Pass</td>	</tr>
<td>Rani</td>	<td>102</td>	<td>Pass</td>	</tr>
<td>Sumit</td>	<td>103</td>	<td>Pass</td>	</tr>

</table>

Name	Roll	Result
Rahul	101	Pass
Rani	102	Pass
Sumit	103	Pass

ANCHOR TAG <A>...

We can create hyperlink using the anchor tag.

What is Hyperlink?

A hyperlink is a link between web pages and it is used to connect one web page to another.

Ex: -

```
<a href="http://www.yasham.academy">Visit YashamAcademy</a>
```

ANCHOR TAG ATTRIBUTES

Attribute	Value	Description
href	URL reference	Specifies the URL as destination web page or different section of web page
download	filename	Specifies that the target will be downloaded when a user clicks on the hyperlink
media	media_query	Specifies what media/device the linked document is optimized for
hreflang	language_code	Specifies the language of the linked document
type	media_type	Specifies the media type of the linked document

ANCHOR TAG ATTRIBUTES

Attribute	Value	Description
target	_blank	Opens the linked document in a new window or tab
	_parent	Opens the linked document in the parent frame
	_top	Opens the linked document in the full body of the window
	framename	Opens the linked document in a named frame
	_self	Opens the linked document in the same frame as it was clicked (this is default)

Ex: -

```
<a href="https://www.yasham.academy" target="_blank">Visit YasahmAcademy</a>
```

ANCHOR TAG ATTRIBUTES

Attribute	Value
rel	alternate
	author
	bookmark
	help
	license
	next
	nofollow
	noreferrer
	prefetch
	prev
	search
	tag

The rel attribute specifies the relationship between the current document and the linked document.

Ex: -

```
<a rel="nofollow" href="https://www.yasham.academy">  
YashamAcademy</a>
```


HREF ATTRIBUTE

Syntax: -

- ▶ An absolute URL - points to another web site
Ex: - href=" https://www.yasham.academy "
- ▶ A relative URL - points to a file within a web site
Ex:- href="page1.html"
- ▶ Link to an element with a specified id within the page
Ex: - href="#bottom"
- ▶ Other protocols
Ex:- https://, ftp://, mailto:, file:, etc..
- ▶ A script
Ex:- href='javascript:alert("Hello");'

DOWNLOAD ATTRIBUTE

The download attribute specifies that the target will be downloaded when a user clicks on the hyperlink.

Ex: -

```
<a href="/images/example.jpg" download="yashamacademy">
```

MEDIA ATTRIBUTE

The media attribute specifies what media/device the linked document is optimized for.

This attribute is used to specify that the target URL is designed for special devices (like iPhone and android etc) , speech or print media.

Value	Description
width	Specifies the width of the targeted display area. "min-" and "max-" prefixes can be used. Example: media="screen and (min-width:500px)"
height	Specifies the height of the targeted display area. "min-" and "max-" prefixes can be used. Example: media="screen and (max-height:700px)"
device-width	Specifies the width of the target display/paper. "min-" and "max-" prefixes can be used. Example: media="screen and (device-width:500px)"
device-height	Specifies the height of the target display/paper. "min-" and "max-" prefixes can be used. Example: media="screen and (device-height:500px)"
orientation	Specifies the orientation of the target display/paper. Possible values: "portrait" or "landscape" Example: media="all and (orientation: landscape)"

Value	Description
aspect-ratio	Specifies the width/height ratio of the targeted display area. "min-" and "max-" prefixes can be used. Example: media="screen and (aspect-ratio:16/9)"
device-aspect-ratio	Specifies the device-width/device-height ratio of the target display/paper. "min-" and "max-" prefixes can be used. Example: media="screen and (aspect-ratio:16/9)"
color	Specifies the bits per color of target display. "min-" and "max-" prefixes can be used. Example: media="screen and (color:3)"
color-index	Specifies the number of colors the target display can handle. "min-" and "max-" prefixes can be used. Example: media="screen and (min-color-index:256)"
monochrome	Specifies the bits per pixel in a monochrome frame buffer. "min-" and "max-" prefixes can be used. Example: media="screen and (monochrome:2)"

Value	Description
resolution	Specifies the pixel density (dpi or dpcm) of the target display/paper. "min-" and "max-" prefixes can be used. Example: media="print and (resolution:300dpi)"
scan	Specifies scanning method of a tv display. Possible values are "progressive" and "interlace". Example: media="tv and (scan:interlace)"
grid	Specifies if the output device is grid or bitmap. Possible values are "1" for grid, and "0" otherwise. Example: media="handheld and (grid:1)"

Value	Description
all	Default. Suitable for all devices
aural	Speech synthesizers
braille	Braille feedback devices
handheld	Handheld devices (small screen, limited bandwidth)
projection	Projectors
print	Print preview mode/printed pages
screen	Computer screens
tty	Teletypes and similar media using a fixed-pitch character grid
tv	Television type devices (low resolution, limited scroll ability)

► And

► Not

► , (OR)

Ex: -

media="print and (resolution:300dpi)">

HREFLANG ATTRIBUTE

Language	Code
English	en
Hindi	hi
Bengali	bn
Gujarati	gu
Kashmiri	ks
Marathi	mr
Malayalam	ml
Punjabi	pa
Sanskrit	sa

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Language	Code
Tamil	ta
Telugu	te
Oriya	or
Sindhi	sd
Kannada	kn
Arabic	ar
Nepali	ne
Japanese	ja
French	fr
Indonesian	id, in

Language	Code
Korean	ko
Portuguese	pt
Russian	ru

Ex: -
hreflang="en"

TYPE ATTRIBUTE



<http://www.iana.org/assignments/media-types/media-types.xhtml>

rel Attribute

Value	Description
alternate	Links to an alternate version of the document (i.e. print page, translated or mirror)
author	Links to the author of the document
bookmark	Permanent URL used for bookmarking
help	Links to a help document
license	Links to copyright information for the document
next	The next document in a selection
nofollow	Links to an unendorsed document, like a paid link. ("nofollow" is used by Google, to specify that the Google search spider should not follow that link)
noreferrer	Specifies that the browser should not send a HTTP referer header if the user follows the hyperlink
prefetch	Specifies that the target document should be cached
prev	The previous document in a selection
search	Links to a search tool for the document
tag	A tag (keyword) for the current document

LINK COLOR

By default, links will appear as follows in all browsers:

An unvisited link is underlined and blue

A visited link is underlined and purple

An active link is underlined and red

link – specifies the color of the hyperlink that has not been visited or clicked before on a webpage

visited - specifies the color of hyperlink that has been visited before on a web page

active – specifies the color of currently active links

The restriction to the content such as disabling script or plugins given by the internal frame.

An iframe with sandbox value as empty will have following restrictions: -

- Forms can not be submitted
- Framed document cannot navigate its top level parent
- Scripts are disabled
- Stops frame content from using plugins
- New windows(browsing contexts) cannot be created by the framed document
- Framed content will be treated from an unique origin. Hence it will not have access to data stored in earlier cookies
- Disable APIs

`<iframe sandbox> </iframe>`

▪ Automatically triggered features like auto playing videos etc are blocked

VALUES

Value	Description
(no value)	Applies all restrictions
allow-forms	Re-enables form submission
allow-pointer-lock	Re-enables APIs
allow-popups	Re-enables popups
allow-same-origin	Allows the iframe content to be treated as being from the same origin
allow-scripts	Re-enables scripts
allow-top-navigation	Allows the iframe content to navigate its top-level browsing context

ALLOW-SAME-ORIGIN

A web page can have access to a second web page only if both have same origin.

Uniform Resource Identifier (URI), Port Number and HostName

<https://www.yasham.academy/address>

<https://www.yasham.academy/our-story>

Same origin

<https://www.yasham.academy:82/p/contact-us.html>

<https://www.yasham.academy/p/about-us.html>

Different Port So Not in Same Origin

<https://www.yasham.academy/p/contact-us.html>

<https://www.yasham.academy/p/about-us.html>

Different Host So Not in Same Origin

ALLOW-TOP-NAVIGATION

Top navigation allows us to open the linked document in the full body of the window or the top browsing context.

Attribute	Value	Description
target	_blank	Opens the linked document in a new window or tab
	_parent	Opens the linked document in the parent frame
	_top	Opens the linked document in the full body of the window
	framename	Opens the linked document in a named frame
	_self	Opens the linked document in the same frame as it was clicked (this is default)

The tag is used to insert image in web pages.

Attribute	Value	Description
src	URL	Specifies the URL of an image
alt	text	Specifies an alternate text for an image
width	pixels	Specifies the width of an image
height	pixels	Specifies the height of an image
ismap	ismap	Specifies an image as a server-side image-map
usemap	#mapname	Specifies an image as a client-side image-map

SRC ATTRIBUTE

ALT ATTRIBUTE



```

```

WIDTH AND HEIGHT ATTRIBUTE

```

```

ISMAP ATTRIBUTE



click coordinates are sent to the server

MAP TAG

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

The `<map>.... </map>` tag contains a number of `<area>` tags, that defines the clickable areas in the image map.

```
<map name="mapname" id="mapname">..... </map>
```

AREA TAG

The `<area>` tag defines an area inside an image-map. An image-map is an image with clickable areas.

The `<area>` element is always nested inside a `<map>....</map>` tag.

Attribute	Value	Description
alt	text	Specifies an alternate text for the area. Required if the href attribute is present
coords	coordinates	Specifies the coordinates of the area
download	filename	Specifies that the target will be downloaded when a user clicks on the hyperlink
href	URL	Specifies the hyperlink target for the area
hreflang	language_code	Specifies the language of the target URL
media	media query	Specifies what media/device the target URL is optimized for
shape	default rect circle poly	Specifies the shape of the area

Attribute	Value	Description
target	_blank _parent _self _top framename	Specifies where to open the target URL
type	media_type	Specifies the media type of the target URL

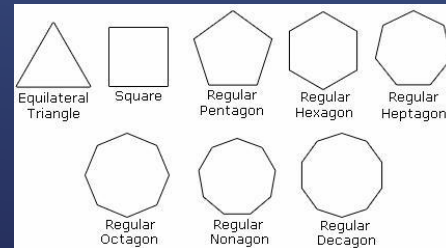
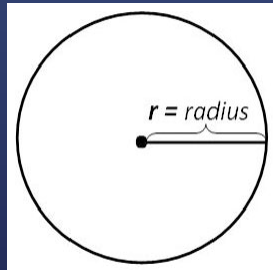
Attribute	Value	Description
rel	alternate author bookmark help license next nofollow norereferrer prefetch prev search tag	Specifies the relationship between the current document and the target URL

COORDS ATTRIBUTE

Value	Description
x, y, x1, y1	If rect, Specifies the coordinates of the left, top, right, bottom corner of the rectangle
x, y, radius	If Circle, Specifies the coordinates of the circle center and the radius
x, y, x1, y1 ..., xn, yn	If poly, Specifies the coordinates of the edges of the polygon. If the first and last coordinate pairs are not the same, the browser will add the last coordinate pair to close the polygon



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AUDIO TAG



The `<audio>... </audio>` tag defines sound, such as music or other audio streams.

Supported Format : mp3, wav and ogg

Attribute	Value	Description
autoplay	autoplay	Specifies that the audio will start playing as soon as it is ready
controls	controls	Specifies that audio controls should be displayed (such as a play/pause button etc)
loop	loop	Specifies that the audio will start over again, every time it is finished
muted	muted	Specifies that the audio output should be muted
preload	auto metadata none	Specifies if and how the author thinks the audio should be loaded when the page loads
src	URL	Specifies the URL of the audio file

PRELOAD

Value	Description
auto	The author thinks that the browser should load the entire audio file when the page loads
metadata	The author thinks that the browser should load only metadata when the page loads
none	The author thinks that the browser should NOT load the audio file when the page loads

COMMENT

► Simple Text Comment

`<! - - comments here - - >`

► Code inside comment

`<!--`

`Important`

`<p id="top">`

*Once upon a time, all the birds - the swans, cranes,
*

*parrots, cuckoos, owls, peacocks, doves and the rest of them
*

*decided to meet. They had to discuss a subject of most importance.
*

``

COMMENT

► Conditional Comment

```
<!--[if IE 8]>  
    Text or Code Here  
<![endif]-->
```


VIDEO TAG

The `<video>.... </video>` tag is used to play video files.

Supports: MP4, ogg, WebM

Attribute	Value	Description
autoplay	autoplay	Play a video file immediately or automatically on the loading of a web page
controls	controls	Display the controls on a web page such as a play button etc
height	pixels	Sets the height of the video player
loop	loop	Specifies that the video will start over again, every time it is finished
muted	muted	Specifies that the audio output of the video should be muted
poster	URL	Specifies an image to be shown while the video is downloading, or until the user hits the play button
preload	auto metadata none	Specifies if and how the author thinks the video should be loaded when the page loads
src	URL	Specifies the URL of the video file
width	pixels	Sets the width of the video player

SOURCE TAG

The <source> tag is used to embed two or more audio or video files of different media types. The browser may choose the type of file to play based on its media type or codec support.

<audio>

<source>

<source>

</audio>

Attribute	Value	Description
src	URL	Specifies the path of the file name to play an audio or video file
type	Media type	Specifies the media type of the linked document
media	Media query	Specifies what media/device the linked document is optimized for

Format	Media type
MP3	audio/mpeg or audio/mp3
Ogg	audio/ogg
Wav	audio/wav

Format	Media Type
MP4	video/mp4
WebM	video/webm
Ogg	video/ogg

type="audio/mp3"

<http://www.iana.org/assignments/media-types/media-types.xhtml>

www.yasahm.academy

EMBED TAG



The `<embed>` tag is used to embed an audio file or video file on web page.
The `<embed>` tag defines a container for an external application or interactive content (a plug-in).

Attribute	Value	Description
src	URL	Specifies the path of the file name to play an audio or video file
type	Media type	Specifies the media type of the linked document
Height	Pixels	Specifies the height of the embedded content
Width	Pixels	Specifies the width of the embedded content

NOEMBED TAG

The `<noembed>.....</noembed>` tag is used to handle browsers which do not support the `<embed>` tag. `<noembed>` tag specifies a message that you want to display in the browser. The message inside the `<noembed>` tag appears only when the browser doesn't support the `<embed>` tag.

This tag has been deprecated, should not be used in production.

FORM TAG

HTML forms are used to collect some data from the site visitor.

The HTML `<form>.....</form>` tag is used to create an HTML form

`<input>`

`<textarea>`

`<button>`

`<select>`

`<option>`

`<optgroup>`

`<fieldset>`

`<label>`

Attribute	Value	Description
accept-charset	UTF-8	Specifies the charset used in the submitted form (default: the page charset).
action	URL	Contains a URL that defines where to send the data after submitting the form
autocomplete	On (default) Off	Determines that the browser retains the history of previous values.
enctype		specifies how the browser encodes the data before it sends it to the server. (default: is url-encoded).
method	GET (default) POST	Specifies how to send the form data to a web server. The data can be sent as URL variables, by using the get method or as HTTP post, by using the post method
name	name	Specifies a name used to identify the form
novalidate	novalidate	Specifies that the browser should not validate the form.
target	_self (default) _blank _parent _top framename	Specifies the target of the address in the action attribute

INPUT TAG

`<input>` tag prompts the user to enter data and also request for the information from the web server after submitting the web form.

`<form>`

`<input>`

`</form>`

No input end tag in HTML5

Attribute	Value	Description
accept	file_extension audio/* video/* image/* media_type	Specifies the types of files that the server accepts
alt	text	Specifies an alternate text for an image. only used with type="image"
autocomplete	on off	It enables or disable autocomplete in <input> tag
autofocus	autofocus	Specifies that an <input> element should automatically get focus when the page loads
checked	checked	Input element should be checked/selected when a web page loads. It is used only with type="checkbox" and type="radio"
dirname	inputname.dir	Specifies that the text direction will be submitted
disabled	disabled	Disables the input element when it loads on the client side's web page, so that user cannot write text in it or select it. This attribute cannot be used with type="hidden"
form	form_id	Specifies form's id to which the input field belongs.
formaction	URL	Specifies the URL of the file that will process the input control when the form is submitted

Attribute	Value	Description
formenctype	application/x-www-form-urlencoded multipart/form-data text/plain	Specifies how the form-data should be encoded when submitting it to the server
formmethod	GET POST	Defines the HTTP method for sending data to the action URL
formnovalidate	formnovalidate	Defines that form elements should not be validated when submitted
formtarget	_blank _self _parent _top framename	Specifies where to display the response that is received after submitting the form
height	pixels	Indicates the height of an input field
list	Id of a datalist	Contains the id of the <datalist> tag where a datalist element contains various options for an input field

Attribute	Value	Description
max	number date	Specifies the maximum value for an <input> element number, range, date, datetime-local, month, time and week.
maxlength minlength	number	Specifies the maximum/minimum number of characters allowed in a text field.
min	number date	Specifies a minimum value for an <input> element number, range, date, datetime-local, month, time and week.
multiple	multiple	Indicates whether the user is allowed to enter more than one value
name	text	Defines a unique name for the input element.
pattern	regexp	Specifies a regular expression that an <input> element's value is checked against
placeholder	text	Specifies a short hint that describes the expected value text, search, url, tel, email, and password
readonly	readonly	Indicates that the value of this field cannot be modified.
required	required	Specifies that an input field must be filled out before submitting the form
size	number	Specifies the width of the control. If type="text" or type="password" this refers to the width in characters. Otherwise it's in pixels.

Attribute	Value	Description
src	URL	Defines the URL of the image to display. It can be used only with type="image"
step	number	Specifies the legal number intervals for an input field
type	button checkbox color date datetime datetime-local email file hidden image month number password radio range reset search submit tel text time url week	Indicates the type of the input element. The default value is text.

Attribute	Value	Description
value	text	Specifies the value of an <input> element
width	pixels	Indicates the width of an input field

TYPE ATTRIBUTE

It indicates the type of input element. It's an empty tag. The default value is text.

Ex: -

```
<input>
```

```
<input type="text">
```


- ▶ Text – It defines a single-line text field.
`<input type="text">`
- ▶ Password – A password field is like text field, the difference being that this control hides each typed character by displaying an asterisk(*) or bullets(●) instead of the character itself.
`<input type="password">`
- ▶ Button – This is used to add a button on a web form to activate a script when an user click the button.
`<input type="button">`
- ▶ Email – This field is used to add an email address or a list of email address to a form, where `type="email"` is a value for the input type. The input format should be an email like example@gmail.com else it will prompt an error.
`<input type="email">`

- ▶ Check Box – A check box is a small box, which when selected includes a checkmark. It is used to allow the user to select one or more than one of the options available on a web page. An User can select or clear the check box by clicking it.

`<input type="checkbox">`

- ▶ Radio Button – A radio button is used to create a series of options of which only one can be selected. It is displayed as a circle which when selected, displays a dot in the middle.

`<input type="radio">`

- ▶ URL - The URL field is used to enter only the web addresses, in their correct format. If the URL is not entered in the correct format then the URL field validates the text field to enter web address.

`<input type="url">`

Autofocus – helps in keeping the focus of mouse pointer on the input field.

Pattern – defines the regular expression of the text that should be entered in the text field.

- ▶ Search Box – This is used to add a search box to a form.
`<input type="search">`
- ▶ Tel - The tel type represents a one-line plain-text edit for entering a telephone number.
`<input type="tel">`
- ▶ Range - Range input represents the input of limited range numerical values.
`<input type="range">`
- ▶ Number - Number is used to validate the textbox only if the value within the field is a numerical value.
`<input type="number">`

- ▶ File – This is used to upload a file on a web page. You also need to set the `enctype="multipart/form-data"`
`<input type="file">`
- ▶ Image – It represents either an image from which the UA enables a user to interactively select a pair of coordinates and submit the form, or alternatively a button from which the user can submit the form.
`<input type="image">`
- ▶ Hidden – A hidden control stores the data that is not visible to the user on a web page. This control is used to submit some information, which can not be edited by user.
`<input type="hidden">`

- ▶ **Submit** – A submit button is used to transfer form data to the URL specified in the `<form action>` tag.
`<input type="submit">`
- ▶ **Reset Button** – A reset button helps user to clear all the data that they have entered in the text fields.
`<input type="reset">`

- ▶ Date – This is used for input fields that should contain a date.
`<input type="date">`
- ▶ Time – It allows the user to select a time.
`<input type="time">`
- ▶ DateTime – It allows the user to select date and time.
`<input type="datetime">`
- ▶ Datetime-local – It allows the user to select a date and time.
`<input type="datetime-local">`

- ▶ Month – It allows the user to select a month and year.
`<input type="month">`
- ▶ Week – It allows the user to select a week and year.
`<input type="week">`
- ▶ Color – It is used for input fields that should contain a color.
`<input type="color">`

ACCEPT-CHARSET ATTRIBUTE



It specifies the character encodings that are to be used for the form submission.

ISO-8859-1 Character encoding for the Latin alphabet

UTF-8 Character encoding for Unicode

`<form accept-charset="UTF-8">`

ACTION ATTRIBUTE

It contains a URL that defines where to send the data after submitting the form.

It specifies the physical address of the server to which the user data should be redirected at the click of the submit button.

`action=http://www.something.com/something.html`

`action="page.html"`

`action="gotform.php"`

`action="example.asp"`

If the action attribute is omitted, the action is set to the current page.

AUTOCOMPLETE

On – The browser will automatically complete values based on values that the user has entered before.

Off – User need to write all values each time they fill the form

`<form autocomplete="on">`

ENCTYPE ATTRIBUTE

It specifies how the browser encodes the data before it sends it to the server.

Value	Description
application/x-www-form-urlencoded	All characters are encoded before sent (spaces are converted to "+" symbols, and special characters are converted to ASCII HEX values)
multipart/form-data	No characters are encoded. This value is required when you are using forms that have a file upload control
text/plain	Spaces are converted to "+" symbols, but no special characters are encoded

<form enctype="multipart/form-data">

METHOD ATTRIBUTE

It Specifies how to send the form data to a web server. The data can be sent as URL variables, by using the get method or as HTTP post, by using the post method.

- ▶ GET (default)
- ▶ POST

GET

GET sends the data as part of the URL.

- ▶ Appends form-data into the URL in name/value pairs
- ▶ The length of a URL is limited 2048 characters
- ▶ Never use GET method if you have password or other sensitive information to be sent to the server.
- ▶ Useful for form submissions where a user want to bookmark the result
- ▶ GET is better for non-secure data, like query strings in Google
- ▶ GET can't be used to send binary data, ex:- images or word documents

`<form action="some.php" method = "GET">`

If we use an invalid value for the method attribute of the `<form>` tag, the browser will use the default value GET.

POST

HTTP POST requests supply additional data from the client (browser) to the server in the message body

- ▶ Appends form-data inside the body of the HTTP request (data is not shown in URL)
- ▶ The POST method does not have any restriction on data size to be sent.
- ▶ Form submissions with POST cannot be bookmarked
- ▶ The POST method can be used to send ASCII as well as binary data. Ex:- image and word documents etc
- ▶ The data sent by POST method goes through HTTP header so security depends on HTTP protocol. By using Secure HTTP you can make sure that your information is secure.
- ▶ POST is a little safer than GET because the parameters are not stored in browser history or in web server logs

```
<form action="some.php" method = "POST">
```

	GET	POST
BACK button/Reload	Harmless	Data will be re-submitted (the browser should alert the user that the data are about to be re-submitted)
Bookmarked	Can be bookmarked	Cannot be bookmarked
Cached	Can be cached	Not cached
Encoding type	application/x-www-form-urlencoded	application/x-www-form-urlencoded or multipart/form-data. Use multipart encoding for binary data
History	Parameters remain in browser history	Parameters are not saved in browser history
Restrictions on data type	Only ASCII characters allowed	No restrictions. Binary data is also allowed
Visibility	Data is visible to everyone in the URL	Data is not displayed in the URL

NAME ATTRIBUTE

Specifies a name used to identify the form

It is Used to give a name to the control which is sent to the server to be recognized and get the value.

name="lastname"

NOVALIDATE

If we use novalidate attribute in form tag then the validation will not take place, even if there is a required field.

<form novalidate>

<form novalidate="novalidate">

<form novalidate="true">

There is one more tag formnovalidate which is used by input tag to specify novalidate this particular text or field we will study about this later.

TEXT DIRECTION (DIRNAME)

Specifies that the text direction will be submitted

Value	Description
ltr	Default. Left-to-right text direction
rtl	Right-to-left text direction
auto	Let the browser figure out the text direction, based on the content

```
<input type="text" name="city" dirname="city.dir">
```

MIN AND MAX



number, range, date, datetime-local, month, time and week.