

# HTML

## Chapter - 0 Introduction

HTML - hyper text markup language. It is used to

HTML is the language of the web it is used to  
create websites.

We use HTML tags to define look and feel of  
the website. With the understanding of these  
tags and how to put them together, we can  
create beautiful websites easily.

Then why CSS and Javascript

HTML is used for defining layout of a page - A  
backbone of page structure.

CSS is used for adding styling to that backbone.

Page created using HTML.

Javascript is used to program logic for the page  
layout. E.g. - what happens when a user hovers on  
a text, when to hide & show elements etc.

A Beautiful analogy.

HTML = car body (only metal)

CSS = car paint, decoration etc

Javascript = car engine + interior logic

We will start learning how to build beautiful layout

In this course.

## Installing vs code

We can use any text editor of our choice. Here I am using vs code because it is light weight, open source and from Microsoft.

Go to google, type vs code & install it

Note: You can write HTML even in note pad. Text editors like vs code just makes these things easier

## Chapter 1. - Creating our first website

<!DOCTYPE html> → specifies this is an HTML doc

<html> → root of an HTML Page

<head> → contains page metadata

<title> Muskaan's website </title> → contains title

</head> → part of response (rendered by browser)

<body> → The main body of the page (rendered by browser)

<h1> This is a heading </h1> → heading tag

<p> my paragraph </p> → paragraph tag

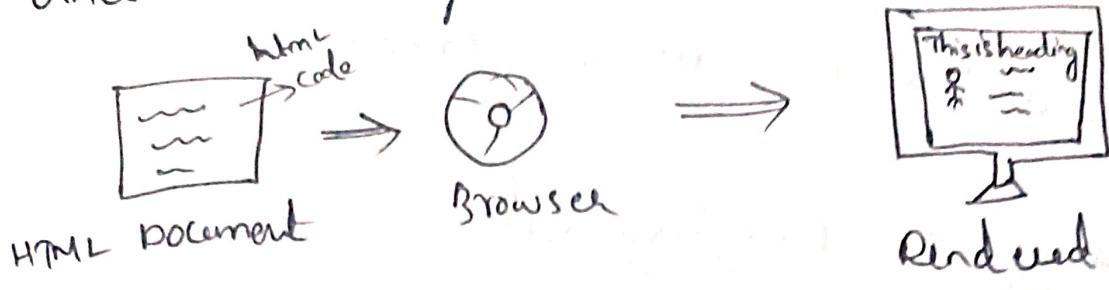
</body> → closing body tag

</html>

loop → This is a heading

my paragraph

A tag is like a container for either content or other HTML tags.



The code will be executed and the browser displays the output as shown on the above rendered page.

### Imp notes

- Head and body tags are children of HTML tag.
- HTML is the parent of head and body tags.
- most of the HTML elements have opening and closing tag with content in between opening and closing tag.
- some HTML tags have no content. These are called empty elements eg `<br>`
- we can either use .htm or html extension
- we can use "inspect element" or "view page source"
- you can use "inspect element" or "view page source" option from chrome to look into a website's html code.

HTML element = start tag + content + end tag

### Comments in html

Comments in HTML are used to mark text which should not be passed. They can help document the source code.

`<!-- HTML comment -->`

Note: `(ctrl + /)` will make the line commented in re

## Case Sensitivity

HTML is not a case sensitive language.   
 `<H1>` and `<h1>` tag are the same.

## Chapter 1 - Practise Set

- ① Inspect your favorite website and change something on the page which is displayed.  
→ Go to any website, on any button do right click and select inspect, and then you can edit the text there.
- ② Go to your favorite website and try to view the page source and write the exact lines of code. Does it clone the website? why?  
Does it clone the website? why?  
Does it clone the website? why?  
Does it clone the website? why?
- ③ Write any HTML code inside a text file. Does it work if you write it using notepad?

## Chapter - 2

### Basic HTML tags

we can add elements inside the body tag to define the page layout.

HTML element :-

every thing from start tag to ending tag.

<body> → opening tag

→ content

</body> → closing tag.

HTML attributes :-

used to add more information corresponding to an HTML tag.

example : <a href = "https://codewithharry">Harry</a>

↓      ↓  
anchor tag    href attribute

we can either use single or double quotes in attributes.

### Heading tag

Heading tag is used to make heading in HTML. From h1 to h6, we have tags for the most important to the least important heading.

<h1> most imp heading </h1>

<h2> another heading h2 </h2>

<h3> another heading H3 </h3>

<h4> another heading H4 </h4>

<h5> :

## The paragraph tag

Paragraph tags are used to add paragraphs to an HTML page.

<p> This is a paragraph </p>

## The anchor tag

The anchor tag is used to add links to an existing content inside an HTML page.

<a href = "https://google.com"> click me </a>

absolute link :-

so these links are used to go to the other websites. ex:-<a href = "https://mang.com"> click </a>  
relative link :-

if it is used to go to within the page

<a href = "#about.html"> Go to about </a>

## The image tag :-

image tag is used to add images in a HTML page

<img src = "image.jpg">

↳ relative URL of image.

## bold, italic and underlined tags :-

we can use bold, italic and underlined tag to highlight the text as follows.

**<b>** This is bold **</b>**

*<i>* This is italic *</i>*

<u> This is underline </u>

~~Note~~

**<br>** → This tag is used to write in newline

Example :-

**<b>** This is bold **</b>**

**<br>**

*<i>* This is italic *</i>*

**<br>**

<u> This is underline </u>

big and small tags :-

We can make the text a bit larger and a bit smaller using big and small tags respectively.

hr tag :-

**<hr>** tag in HTML is used to create a horizontal line often used to separate the content.

subscript & superscript

We can add subscript and superscript in HTML as follows:

**<sub>** This **<sub>** is subscript

**<sup>** This **<sup>** is superscript

Example :-  $\text{CO}_2$

**<p>**  $\text{CO}_2$  **<sub>** 2 **</sub>** **</p>**

$a^2 + b^2 = c^2$

**<p>**  $a^2 + b^2 = c^2$  **</p>**

Pre tag

HTML always ignores extra spaces and newlines in order to display a piece of text as it is we use pre tag

<pre>

This is written  
using  
pre  
tag

</pre>

→ Rendered  
as it is

<pre>Hello world</pre>

<pre>Hello world</pre>

→ Hello world

pre tag elements are bold and return new line when wrapped off from two first words

bold, italic and underline are from 2nd font style  
bold and italic are bold and italic  
underline is underlined

for bold it is bold and for underline it is underline  
for italic it is italic and for underline it is underline

## Chapter - 3

when we use the right tag in right place, it results in a better page layout, better indexing by search engine and better user experience.

we use the following tag to get the job done

<header>

<main>

<footer>

inside the main tag we insert the following tags.

<main> → The main opening tag

<section> → A page section

<article> → A set of contained content

<aside> → content aside from the content

</main> → The main closing tag.

Creating a page like this is not necessary but it creates a readable and structured layout

Also they are useful → SEO

link attributes :-

<a href = "/contact"> contact us </a> → contact page  
opens in same tab

<a href = "/contact"> target = "\_blank"> contact us </a>  
→ open in a new tab

we can put any content inside an anchor tag  
(images, headings etc are all allowed)

If the page is inside a directory, we need to make sure that we are linking to the correct page.

↳ same applies to image as well.

we can add links to images like this

< a href = "labout" > < img src = "a.jpg" width = "120" > < /a >  
↳ Height will be set automatically

### The div tag

Div tag is often used as a container for other elements. Div is a block level element

↳ always takes full width

### The span tag

Span is an inline container  
↳ takes as much width as necessary

## chapter 6 - lists, tables and forms

### lists:-

which are used to display the contents which represent a list.

unordered list : used to list unordered items.

<ul>

<li> Home </li>

<li> About </li>

<ul>

ordered list :- used to list ordered items

<ol>

<li> Phone </li>

<li> PC </li>

<li> Laptop </li>

<ol>

### Tables

The <table> tag is used to define tables in HTML . It is used to format and display tabular data .

<tr> tag : used to display table rows .  
<td> tag : used to display format and display table data .

<th> tag : used in place of <td> tag to display table headers .

displaying

To add a caption to the table, we use <caption> tag inside table.

<thead> tag : used to wrap the table head (caption and tr with th)

& body tag : used to wrap the table body.

colspan attribute

This attribute is used to create cell spanning multiple columns.

<th colspan="3"> Harry </th>

→ spans 3 columns.

HTML form

An HTML form is used to collect input from the user. form tag is used for the same.

<form> -- element of the form -->

<input>

There are different form elements for different kinds of user input.

Input element: can be of type text, checkbox, radio, button and submit we also have a file type.

Textarea element re-defines a multi-line text input. cols and rows attributes can be used to size the text area.

Select elements:

Defines a drop down list

Note: you don't have to remember all the tags, browser will automatically memorize them with you.

Practise:

## Embedding videos

video tag is used to play videos in HTML

<video src = 'harry.mp4'> </video>

## Attributes of video

We can use:

width: to adjust width of a video (height automatically adjusted)

we can use autoplay/loop to autoplay & loop the video.

controls - allows "volume controls" - when we click on video

poster - part of video which is displayed before video plays

height - defines height of video

playsinline - defines video to play in same window

allowscriptedcontrolled - allows video to be controlled by script

allowfullscreen - allows video to be viewed full screen

allowvr - allows video to be viewed in VR mode

# Chapter 5      SEO      Search engine optimization

We will focus only on HTML standpoint of SEO. We will not be looking into keyword building and Content optimized aspect of SEO.

## Type of SEO

- On Page SEO → can be done by HTML developer.
- Off Page SEO

## HTML SEO

HTML developers can implement SEO using the following techniques:

- ▷ Set the title very nice and to the point
- ▷ set the meta description.

<meta name="description" content="...">

- ▷ set a very nice URL slug

▷ set the meta keyword tag

▷ set the meta author tag.

<meta name="author" content="Hally">

- 6> set fav icon

▷ Compress images & other resources

▷ Remove unused HTML CSS & JS files & compress them

▷ add alt text to images