

HTML

HYPER TEXT MARKUP LANGUAGE (html)

Requirements:

- * Web browser to run the files (chrome)
 - * Code editor (VS code)
-

Types of tags:

Self-closing :- only have a tag name with only attributes

Pair-tags : have a starting and ending tags and contents are given between tags

Basic tags:

<tag name>content </tag name>:- most of the tags consists a starting and an ending

<!DOCTYPE html> :- declaration that this file is an html document (self-closing)

<html> :- contains the root elements of html page

<head> :- contains the information's about html page

<title> :- gives a title or name to tab opened

<body> :- contains visible contents of the web page

Syntax:

```
<!DOCTYPE html>
<html>
<head>
<title>tab name</title>
</head>
<body> visible contents of the web page </body>
</html>
```

Tags :

<h1> :- this is a header tag and the size of content depend on the tag we use

- Header tags varies from <h1>.....<h6>

<p> :- to include paragraphs of content to your web page

- While using VS code type “LOREM” + TAB to create some garbage text

 :- line break between contents in web page (self closing)

<pre> :- preformat how exactly the contents should be displayed in the web page

<!--content--> :- (self-closing) content in this will be comments

<hr> :- gives a horizontal line ruled in the web page

Code that includes all tags learned till now :

```
<!DOCTYPE html>

<html>  <head> <title>tab name</title> </head>

<body>    <h1>largest heading</h1>

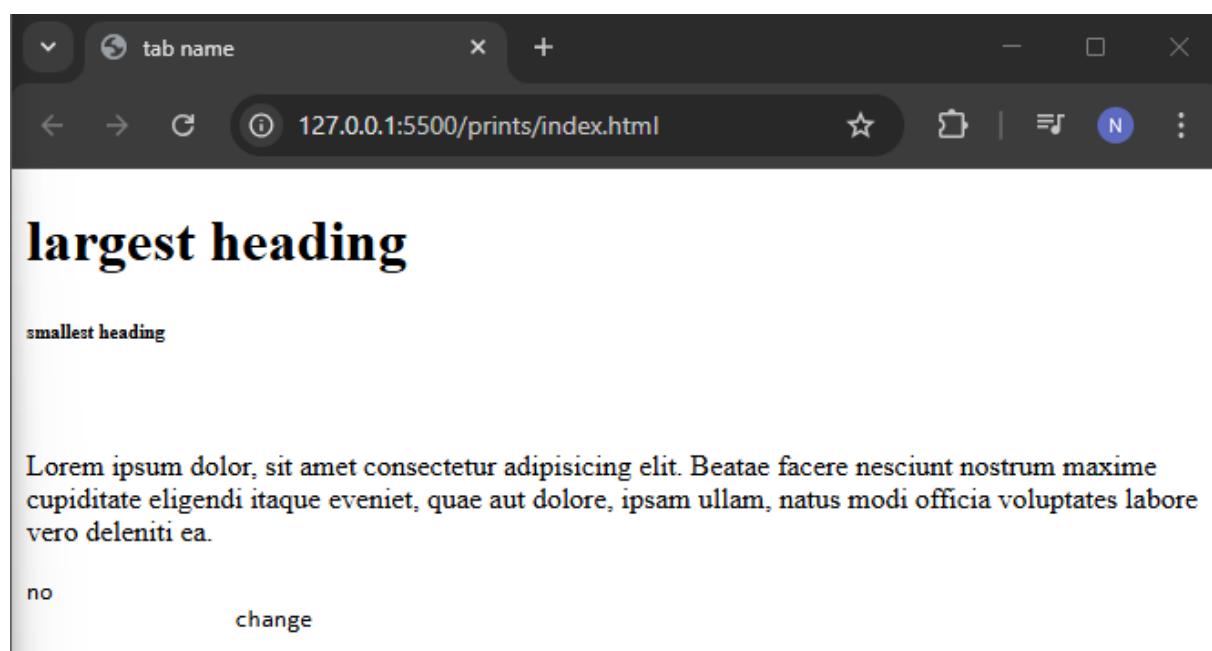
            <h6>smallest heading</h6>      <br>

<p>Lorem ipsum dolor, sit amet consectetur adipisicing elit. Beatae facere nesciunt
nostrum maxime cupiditate eligendi itaque eveniet, quae aut dolore, ipsam
ullam, natus modi officia voluptates labore vero deleniti ea.</p>

<pre>no
change </pre>

</body>  </html>
```

OUTPUT:



HYPER LINKS:

hyperlink, or simply a link, is a digital reference providing direct access to data by a user's clicking or tapping. A hyperlink points to a whole document or to a specific element within a document. Hypertext is text with hyperlinks. The text that is linked from is known as anchor text (a – anchor , href – hypertext reference)

something that will take to the destination by click

Other Attributes:

- target="_blank" :- open in a new tab
- title="blah blah" :- tool tip when hover over the link
- href="mailto:demo@mail.com" :- open the window of sending mail to demo..

IMAGES & gif's:

 tag is used to insert images in web pages (self-closing)

Eg:

Note: By enclosing the img tag with a tag we can convert the image into hyper link

Attributes :

- src ="" image source that need to be inserted along with its type
- height , width - gives the size of image inserted
- alt="blah blaah" this will work when the image source is not found by web

AUDIOS:

<audio> pair tags is used is insert audios,inside this an a <source> tag (self-closing) is used to insert the source of the audio

Eg: <audio> <source src="music.mp3"> </audio>

The audio files don't have any controls and buttons to play so we add some attributes such as ...

- controls :- gives the controls to play and forward the audio
- autoplay :- play when the site is opened or refreshed
- muted :- mute the audio at start until we unmute
- loop :- loop the song again when it finish playing once

note :

```
<source src="music.mp3" type="audio/mpeg">
```

```
<source src="music..wav" type="audio/wav">
```

Another source is added in .wav format which is a backup source when required source is lost or damaged, type attribute is used in source tag to define the type of format for individual sources

VIDEO:

<video> pair tags are used to include video files (webm,ogg,mp4,etc..) in web pages

This can be enclosed by anchor tag to make it as hyperlink

Attributes:

- src="demo.mp4" :- source of the audio required
 - height , width :- to modify the size of video screen
 - controls :- gives the controls to play
 - autoplay :- auto plays the video when the page is opened or refreshed
 - muted :- will be muted at the start until unmuted
 - loop :- loop the video again when reaches the end
 - type="demo/mp4" :- defines the format of video , (.webm is used for backup)
-

FAVICONS:

An icon associated with a particular website, typically displayed in the address bar of a browser accessing the site or next to the site name in a user's list of bookmarks.

Syntax:

```
<head>
<link rel="icon" type="image/jpg" href=""demoimg.jpg">
<title>MyWebsite</title>
</head>
```

TEXT FORMATTING:

Gives text special emphasis by enclosing those text in between these pair of tags

Like bold , italic , deleted , etc....

 : make the text bold

<i> : give text a italic style

<u> : underline the text

 : make deleted text

<big> : makes the text slightly big

<small>: makes the text slightly small

<sub> : make it lower small text

<sup>: make is upper small text (power)

<tt> : make the text look like monospaced

<mark> : highlight effect for the text

SPAN & DIV TAGS:

Used to group elements together

 : inline container to group elements for styling purposes

<div> : block container to group elements for styling purposes

Eg:-

This is a span title

This is a div title

LISTS:

HTML offers three primary types of lists for structuring content

- ordered list
- unordered list (bullet points)
- definition list <dl>

linked list (define contents in list)

definition title <dt>

description definition <dd>

note: you can define list inside list also called nested lists

syntax of ordered list:

items

syntax of definition list:

<dl>

<dt>title</dt>

<dd>description</dd>

</dl>

TABLES:

<table> is the pair tag used to create tables

<tr> used to define rows (horizontal rows)

<th>include headers to first row of table

<td> include data's under the table headers

Example:-

Code: <table>

```
<tr>
  <th>column 1</th>
  <th>column 2</th>
  <th>column 3</th>
</tr>
<tr>
  <td>data 1</td>
```

```
<td>data 2</td>  
<td>data 3</td>  
</tr>  
</table>
```

Output:

column 1	column 2	column 3
data 1	data 2	data 3

BUTTONS:

<button> pair tag is used to create buttons in html

The contents between button pair tag will be seen inside the button box

Eg: <button>content</button>

Buttons have a onclick="" attribute and you can assign some functions in it

Some CSS properties(style="")

- font-size:demo px;
- background-color:rgb();
- color:hsl();
- border-radius:demo px;

FORMS:

An HTML form is used to collect user input on a web page. This input can then be sent to a server for processing, or handled client-side using JavaScript. The core of an HTML form is the <form> element, which acts as a container for various form controls.

Attributes for <form> (enctype="multipart/form-data" is used when sending large data)

- action="" defines to what url/ location we need to send the form to , form submission is done by some backend lang such as PHP
- method="" specifies whether this is a GET or POST request of the form, post is used to send sensitive data or large amount of data

common form elements and following attributes

<input> :to create a input text box ,attributes

- required : form doesn't submit until enter something inside
- minlength="" : the input text should be at least required length
- maxlength="" : the input box have a maximum limit of characters
- placeholder="" : a msg in textbox which will disappear when something is typed
- type="tel" to input a ph number
- pattern="[0-9]{3}-[0-9]{2}" input ph number with specified pattern (123-45)
- type="date" : gives a interactive calender to set date
- value="" : gives a default value to the input box
- name="" : group the multiple text boxes (mostly used for radio buttons)
- type="file" : to include a file into form accept="image/png" limit the type of file

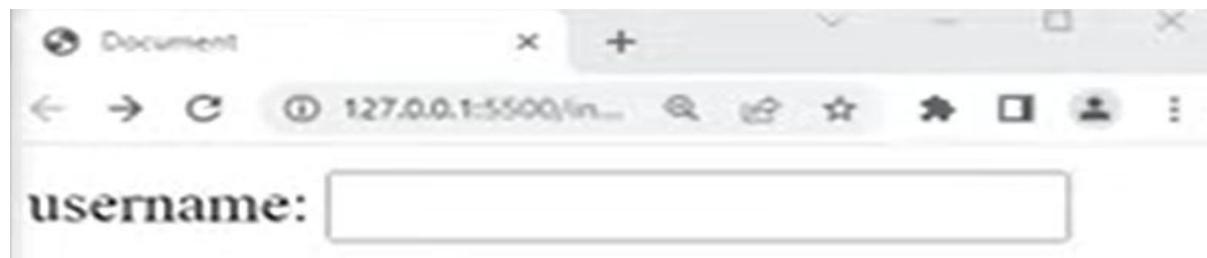
- type="text": Single-line text input.
- type="password": Hides input characters.
- type="email": Validates email format.
- type="number": Allows only numeric input.
- type="checkbox": Allows multiple selections.
- type="radio": Allows a single selection from a group
- type="submit": A button to submit the form.
- type="reset": A button to reset form values

<label>: Provides a descriptive label for an input element, improving accessibility. The for attribute should match the id of the associated input

Note : for visually impaired , there is a for="" attribute for label with a matching id="" attribute for input , when label is clicked the cursor will go to the input box

Eg: <label for="username">username :</label>

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



DROPDOWN MENU:

It is used to select options from a menu and by selecting the option the value assigned in it will be given out syntax:

```
<select>  
  <option value="1">one</option>  
  <option value="2">two</option>  
  <option value="3">three</option>  
</select>
```

TEXTAREA:

<textarea> : multi-line input of text

Attributes:

- rows=""
- cols=""
- min=""
- max=""

HEADER AND FOOTER :

The `<header>` and `<footer>` elements in HTML are semantic tags introduced in HTML5, providing structural meaning to a web page beyond simple `<div>` elements. They serve distinct purposes in organizing content and improving accessibility

```
<header>  
  Introductory content of our web page  
</header>  
  
<main>  
  Main contents of web page here, <hr> horizontal rule  
</main>  
  
<footer>  
  Tail contents or concluding contents of web pages  
</footer>
```
