

# HTML

## HYPER TEXT MARKUP LANGUAGE (html)

### Requirements:

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

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### 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

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### 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

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### Syntax:

<!DOCTYPE html>

<html>

<head>

<title>tab name</title>

</head>

<body> visible contents of the web page </body>

</html>

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### 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

<br> :- 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

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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
```

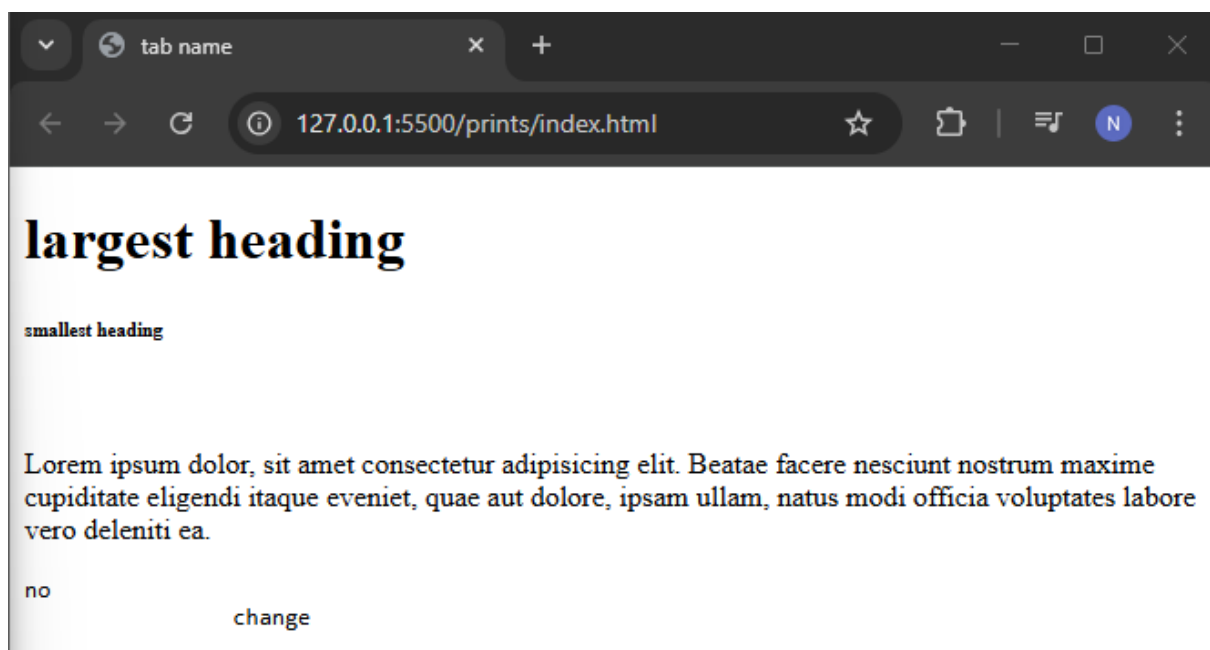
```
        ullam, natus modi officia voluptates labore vero deleniti ea.</p>
```

```
    <pre>no
```

```
        change </pre>
```

```
</body>  </html>
```

OUTPUT:



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## **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)

`<a href="destination">something that will take to the destination by click</a>`

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..

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## **IMAGES & gif's:**

`<img>` 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

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## **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

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## **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 , (.webmis used for backup)

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## **FAVICON:**

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....

<b> : make the text bold

<i> : give text a italic style

<u> : underline the text

<del> : 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

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### **SPAN & DIV TAGS:**

Used to group elements together

<span> : 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**

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### **LISTS:**

HTML offers three primary types of lists for structuring content

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

linked list <li> (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:

<ol>

<li>items</li>

</ol>

syntax of definition list:

<dl>

<dt>title</dt>

<dd>description</dd>

</dl>

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## **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;

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## **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

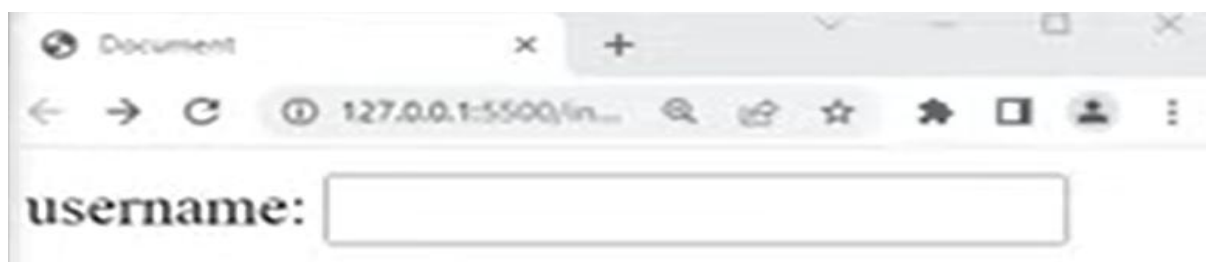
- `type="text"`: Single-line text input.
- `type="password"`: Hides input characters.
- `type="email"`: Validates email format.
- `type="number"`: Allows only numeric input.
- `type="checkbox"`: Allows multiple selections.
- `type="radio"`: Allows a single selection from a group
- `type="submit"`: A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

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### **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>
```

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