HTML BASIC

HTML stands for HyperText Markup language.

This is the most basic building block of every web application, Without using HTML we cannot build web applications.

➢ HTML is not a case sensitive.

Example:

```
<html>
or
<HTML>
or
<HtMl>   all these are same effect.
```

➢ File extension of html file is **.html**   or **.htm**

What are required software to create and run the html code.

1) Text Editor e.g. notepad, notepad++ etc.
2) Web browser   e.g firefox, chrome IE etc...

How to run a html code:

Step1: Create a html file (extension of file should be .html or .htm)

Step2: Right click on the html file and select open with notepad or any text editor.

Step3: Write HTML code in the file and save it.

Step4: To run html code right click on the html file and open with any web browser. Now you will see the output in the browser.

Strcutre of HTML Page:

Every HTML page contains two parts
1. **Head part**
2. **Body part**
Head contains meta data like title of the page, keywords etc.
Body contains actual content.

Basic Syntax of HTML code.

```
<html>
<head>
        <title>demo</title>
</head>
<body >
        Actual content goes here

</body>
</html>
```

Heading in HTML:
There are six heading tag available in html. In other word we can say HTML supports 6 heading tags.

```
<h1>Heading level 1</h1>
<h2>Heading level 2</h2>
<h3>Heading level 3</h3>
<h4>Heading level 4</h4>
<h5>Heading level 5</h5>
<h6>Heading level 6</h6>
```

Heading level 1

Heading level 2

Heading level 3

Heading level 4

Heading level 5

Heading level 6

From the above output it is clear that <h1> is the highest and <h6> is the lowest heading.

Paragraph tag: <p>:
We can use this tag to represent paragraph of text.
<p> This is first paragraph </p>
case-1:
<p>This is First Line
This is Second Line

This is Third Line
This is Four Line
</p>

Total Data will come in a single line, because we are using only one paragraph tag.
Case-2:
<p>This is First Line</p>
<p>This is Second Line</p>
<p>This is Third Line</p>
<p>This is Fourth Line</p>

Output will come in 4 lines
case-3:
<p>This is First Line</p><p>This is Second Line</p>
Output will come in 2 lines

<u> tag: this tag is used to underline a text.

<u> this text is underline</u>

Output: <u>this text is underline</u>

<img> tag:
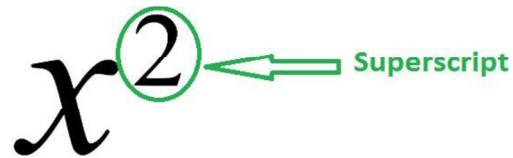In HTML, you can embed an image into a web page using the <img> tag.
When you use this tag, you insert the image URL or address or path. You should also provide other details such as width, height, and alternative text.

Alternative text is the text that is displayed in the event that your image can't be displayed. It is useful in the event that someone views your website with images disabled in their web browser.

Example:

<sup> tag: This tag is used to write superscript in a web page.

HTML CODE:

X ²

<sub> tag: This tag is used to write subscript in a web page.

HTML Code:

H₂O

<pre> tag

The **HTML <pre> tag** is used *to specify **pre formatted texts***. Texts within
<pre>.......</pre> tag is displayed in a fixed-width font. Usually it is displayed in Courier
font. It maintains both space and line break.

Example:
```
<html>
<head>
      <title>demo</title>
</head>
<body >
 <pre>
Amhara bihta,
```

```
        Near iit Main gate
District-patna
</pre>

</body>
</html>
```

Output
```
Amhara bihta,
          Near iit Main gate
District-patna
```

<hr> tag : It draw a horizontal line to separate the content in a web page. It is also called a Horizontal Rule in HTML.

Attribute name	Description
Width	This attribute is used to specify the width of a horizontal rule
Size	This attribute is used to specify the height (thickness) of a horizontal rule
Color	This attribute is used to control the display color of a horizontal rule
align	This attribute is used to control the horizontal alignment of a horizontal rule
noshade	This attribute is used to change the display of a horizontal rule form the default 3D style to a flatter 2D style.

HTML Strikethrough

<strike> tags is used for deleted text.
The content of strikethrough tags would appear with a horizontal line(strikethrough) over the text.
Example:

<p>Price of Laptop is <strike>Rs. 29000 </strike> Rs 27000</p>

Output: Price of Laptop is ~~Rs. 29000~~ Rs 27000

Alternatives to HTML Strikethrough Text

There are two alternatives you may use instead of the <strike> tags. Both of them look the same in the output, but convey different semantic meaning:

To show that a certain part of text is deleted, use <del>.
In other cases, use <s>.

Example:
<p>My favorite fruit is <del>mango </del> Apple</p>
Output:
My favorite fruit is mango Apple

Example-2:
<p><s>My car is blue.</s></p>
Output: ~~My car is blue.~~

<a> tag (or anchor tag): This tag is used to creates a hyperlink to web pages, files, email addresses, locations in the same page etc.
for example
Suppose you wanted to link to the home page of nielit. The web address is: http://www.nielit.gov.in. You have to code the link like this:

Homepage of NIELIT

Output:

Homepage of NIELIT
When you click on the above hypertext you will be redirected to home page of NIELIT.

Attribute name	Description
href	Specifies the URL of a page that the link goes to.
target	Specifies the default browsing context to load the URL into. Only to be used when the href attribute is present. Possible values: _blank, _self, _top, _parent , frame_name

HTML Comment:

Comment is used to enhance the readability and understandability of the code. HTML comments are visible to anyone that views the page source code.

<!--this text is ignored/not displayed by the browser-->

Example:
<html>
<head>
          <title>demo of html</title>
</head>
<body>
<h1>Hello</h1> <!- -h1 is the highest heading tag in html- ->
</body>
</html>
Output: only hello will be displayed on the web browser.

**
 tag in html:**

 tag is used for line break.
this tag is also called empty tag(because <br> tag does not have its closing tag)

you can close this tag as <br />.

<html>
<head>
          <title>demo of html</title>
</head>
<body>
hello
world
</body>
</html>

output:
hello
world

Note: In HTML indentation is not important but tags are important.

Bold and Italic:

legacy tags:

** for bold**
<i> for italic
These are old (Legacy)html tags and not recommended to use.
Eg <p><i>This is First Line</i></p>

advanced tags:

We can use the following HTML 5 advanced tags for bold and italic
** for strong text(bold)**
** for emphasis (italic)**
Eg
<p>This is Second Line</p>

how to set background image in html:

=================================

<html>

<head>

        <title>demo</title>

</head>

<body background="hdwall.jpg">

</body>

</html>

Realtive Address of image:

background="image/index.jpg"

Absolute Address of image:

        "C:\Users\nielit\Desktop\O Level 1st sem sptember 2020 to jan 2021\image\index.jpg"

=>marquee tag in html:

marquee is a scrolling piece of text/image displayed either horizontal or vertical direction.

By default, content found within the <**marquee**> **tag** will scroll from right to left.

```
<html>

<head>

    <title>demo of html</title>

</head>

<body>

<marquee direction="right" loop="2" behavior="alternate">welcome to nielit</marquee>

</body>

</html>
```

loop attribute in marquee tag is used to specify the how many times to loop.

default is infinite times.

Code for space in html:

  this code is used for space in html.

example:

```
<html>

<head>

    <title>demo of html</title>

</head>

<body>
```

hello   world

</body>

</html>

output:

hello   world

how to write symbol in html:

https://www.w3schools.com/charsets/ref_utf_arrows.asp

https://www.w3schools.com/charsets/ref_utf_currency.asp

https://www.w3schools.com/charsets/ref_utf_math.asp

Char	Dec	Hex	Entity	Name
∀	8704	2200	∀	FOR ALL

example:

<html>

<head>

   <title>demo of html</title>

</head>

<body>

∀   ∀ ∀

</body>

</html>

output:

for all symbol three times.

Important Symbol:

®	®
©	©
<	<
>	>
	space

LIST IN HTML:

HTML lists allow web developers to group a set of related items in lists.

There are two type of list available in html.

1. **Ordered List**
2. **Unordered list**

ordered list:

1. Long term course
2. short term course
3. project training

HTML code:

<html>

<head>

    <title>demo html</title>

</head>

<body>

<ol type="1">

Long term course

```
<li>short term course</li>

<li>project training</li>

</ol>

</body>

</html>
```

type="1"   =>1., 2., 3., ...

type="A"   =>A., B., C., ...

type="a"   =>a., b., c., ...

type="i"   =>i., ii., iii., ...

type="I"   =>I., II., III.,.............

example2:

1. Long term course
     A. adhns
     B. o Level
2. short term course
     I.   php
     II.   java
3. project training

HTML Code:

```
<html>
<head>
      <title>demo html</title>
</head>
<body>
<ol type="1" >
<li>Long term course
```

```html
        <ol type="A">
                <li>adhns</li>
                <li>o Level</li>
        </ol>
</li>
<li>short term course
        <ol type="I">
                <li>php</li>
                <li>java</li>
        </ol>

</li>
<li>project training</li>
</ol>
</body>
</html>
```

<u>Unordered LIST:</u>

- Long term course
    - adhns
    - o Level
- short term course
    - php
    - java
- project training

HTML CODE:

```html
<html>
<head>
        <title>demo html</title>
</head>
<body>
```

```
<ul >
<li>Long term course
      <ul type="square">
            <li>adhns</li>
            <li>o Level</li>
      </ul>
</li>
<li>short term course
      <ul type="disc">
            <li>php</li>
            <li>java</li>
      </ul>
</li>
<li>project training</li>
</ul>
</body>
</html>
```

Table in HTML: Table is a collection of row and column.

Table cells which act as column headers or row headers should use the <th> (table header)

A caption can be added to a table using the <caption> element.

The CAPTION element is only permitted immediately after the TABLE start tag. A TABLE element may only contain one CAPTION element.

Example:

A	B
C	D
E	F

HTML CODE:

```
<html>
<head>
       <title>demo html</title>
</head>

<body>
  <table border="1">
  <tr>
       <td>A</td>
       <td>B</td>
  </tr>

  <tr>
       <td>C</td>
       <td>D</td>
  </tr>

  <tr>
       <td>E</td>
       <td>F</td>
```

```
        </tr>

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

Column merge in a table:

```
|     A     |
|  B  |  C  |
```

HTML CODE:

```
<html>
<head>
        <title>demo</title>
</head>
<body>
<table border="1">
        <tr>
                <td colspan="2" align="center">A</td>
        </tr>

    <tr>
        <td>B</td>
                <td>C</td>
        </tr>
</table>
</body>
</html>
```

Row merge in a table:

```
        B
   A
        C
```

```html
<html>
<head>
      <title>demo</title>
</head>
<body>
<table border="1">
      <tr>
       <td rowspan="2">A</td>
         <td>B</td>
      </tr>
      <tr>
       <td>C</td>
      </tr>
</table>
</body>
</html>
```

align attribute in table:

   align="left"

   align="right"

   align="center"

valign attribute in table:

      valign="top"

    valign="middle"

    valign="bottom"

cellpadding attribute:

it is distance between cell wall and content of a table.

cellspacing attribute: it is space between two cell.

<dl> tag(description list): This tag is used to define list of definition.

This tag is used with <dt> and <dd> tag.

      <dt> :define term

      <dd>: define definition

Example:

<html>

<head>

<title></title>

</head>

<body>

<dl>

  <dt>RAM</dt>

  <dd>Random-access memory (or simply RAM) is the memory or information storage in   a computer that is used to store running programs and data for the programs. Data   (information) in the RAM can be read and written   quickly in order.

  </dd>

 <dt>Rom</dt>

 <dd>Read-only memory (ROM) is a type of non-volatile memory used in computers and   other electronic devices.

 </dd>

```
</dl>

</body>

</html>
```

OUTPUT:

RAM
>   Random-access memory (or simply RAM) is the memory or information storage
>   in a computer that is used to store running programs and data for the programs.
>   Data (information) in the RAM can be read and written quickly in order.

Rom
>   Read-only memory (ROM) is a type of non-volatile memory used in computers
>   and other electronic devices.

Form in HTML

An HTML form is used to collect user input. The user input is most often sent to a server for processing.

We can create Html form by using <form> tag.

Syntax:
<form class="" action="" method="">
.....
</form>

Within the form to collect end user input, we have to use <input> tag.
This <input> tag will play very important role in form creation.

syntax: <input type="" name="" value=""/>

type attribute can be used to specify the type of input end user has to provide. The main important types are:
text
email
password
color
submit
checkbox
radio
file
etc
name attribute represents the name of input tag. By using this name, in the next target page we can access end user provided input value.
value attribute represents default value will be displayed in the form.

Eg
<input type="text" name="username" value="Enter User Name"/>
<input type="email" name="mailid" value=""/>
<input type="password" name="pwd" value=""/>
<input type="checkbox" name="course" value=""/>
<input type="radio" name="married" value=""/>

To provide default value it is highly recommended to use placeholder attribute because end user is not required to delete default value while entering data.
Eg: <input type="text" name="username" placeholder="Enter User Name"/>

HTML FORM Example:

choose color:*	▬
Enter Name:*	Enter Name
enter mobile number:	+91
Enter password:	
how many car do you have?	
enter email	
date of birth	dd - mm - yyyy 🗓
gender:	○ Male ◉ Female
hobby :	☑ cricket ☐ music ☐ internet surfing
select state:	Bihar ▾
dob	DD ▾ MM ▾ YYYY ▾
address	MR.
upload image	Choose File No file chosen
	submit form clear

HTML CODE:

```
<html>
<head>
        <title>demo of html form</title>
</head>
<body>
<form method="post" action="demo28092020.html">
<table border="1" cellspacing="0" align="center" height="700"
width="60%"cellpadding="10">
<tr>
        <td>choose color:<font color="red">*</font></td>
        <td><input type="color" name="colorpick"  required/></td>
</tr>
<tr>
        <td>Enter Name:<font color="red">*</font></td>
        <td><input type="text" name="uname" placeholder="Enter Name" required
maxlength="30" pattern="[a-z A-z]{2,30}"/></td>
</tr>
<tr>



        <td>enter mobile number:</td>
        <td><input type="text" size="1" value="+91"
disabled="disabled"/>   <input type="text" pattern="[0-9]{10}"
required/></td>
</tr>
<tr>
<td>Enter password:</td>
<td><input type="password" name="pwd" required pattern="[a-zA-z$@0-
9]{5,15}"/></td>
</tr>

<tr>
```

```html
<tr>
<td>how many car do you have?</td>
<td><input type="number" name="car" required/></td>
</tr>
<tr>

<tr>
<td>enter email</td>
<td><input type="email" name="email" required/></td>
</tr>
<tr>




<tr>
<td>date of birth</td>
<td><input type="date" name="dob1" required/></td>
</tr>


<tr>
<td>gender:</td>
<td><input type="radio" name="gender" value="M" >Male
    <input type="radio" name="gender" value="F"
checked="checked">Female<br></td>
</tr>
<tr><td>hobby : </td>
<td><input type="checkbox" checked="checked"/>cricket<br>
    <input type="checkbox" />music<br>
    <input type="checkbox" />internet surfing</td>
</tr>
<tr><td>select state:</td>
<td><select name="state">
    <option  value="-1">--Select--</option>
```

```html
<option value="35">Andaman and Nicobar Islands</option>
<option value="28">Andhra Pradesh</option>
<option value="12">Arunachal Pradesh</option>
<option value="18">Assam</option>
<option value="10" selected="selected">Bihar</option>
<option value="4">Chandigarh</option>
<option value="22">Chhattisgarh</option>
<option value="26">Dadra and Nagar Haveli</option>
<option value="25">Daman and Diu</option>
<option value="7">Delhi</option>
<option value="30">Goa</option>
<option value="24">Gujarat</option>
<option value="6">Haryana</option>
<option value="2">Himachal Pradesh</option>
<option value="1">Jammu and Kashmir</option>
<option value="20">Jharkhand</option>
<option value="29">Karnataka</option>
<option value="32">Kerala</option>
<option value="37">Ladakh</option>
<option value="31">Lakshadweep</option>
<option value="23">Madhya Pradesh</option>
<option value="27">Maharashtra</option>
<option value="14">Manipur</option>
<option value="17">Meghalaya</option>
<option value="15">Mizoram</option>
<option value="13">Nagaland</option>
<option value="21">Odisha</option>
<option value="34">Puducherry</option>
<option value="3">Punjab</option>
<option value="8">Rajasthan</option>
<option value="11">Sikkim</option>
<option value="33">Tamil Nadu</option>
<option value="36">Telangana</option>
<option value="16">Tripura</option>
<option value="9">Uttar Pradesh</option>
```

```html
            <option value="5">Uttarakhand</option>
            <option value="19">West Bengal</option>

        </select></td>
</tr>


<tr><td>dob</td>
<td><select name="dd">
<option value="">DD</option>
   <option value="01">01</option>
</select>
<select name="mm">
<option value="">MM</option>
    <option value="1">january</option>
 <option value="2">february</option>
<option value="3">march</option>
</select>
<select name="yyyy">
<option value="">YYYY</option>
   <option value="1990">1990</option>
</select>
</td>
</tr>

<tr><td>address</td>

<td><textarea rows="10" cols="30" name="address">MR.</textarea></td>
</tr>
<tr><td>upload image</td><td><input type="file" name="image" /> </td>
</tr>

<tr align="center">
<td colspan="2"><input type="submit" name="submit" value="submit form" />
<input type="reset" name="reset" value="clear" /> </td>
```

```
</table>
</form>
https://upsconline.nic.in/ora/RegistrationFinal.php
<a href="hh.html" target="_blank"></a>
</body>
</html>
```

What is the difference between GET and POST method?

Both GET and POST method is used to transfer data from client to server in HTTP protocol .

GET	POST
Form data sent using this method will be displayed in the URL.	Form data sent using this method will not be displayed in the URL.
This method is not secure, because of security we can not send sensitive information like password with this method.	This method is secure, because of security we can send sensitive information like password with this method.
Only text data we can send using this method.	With this method we can send any type of data.
Only limited amount of data we can send using this method.	Any amount of data we can send using this method.

Frame in html:
HTML frames are used to divide your browser window into multiple sections where each section can load a separate HTML document. A collection of frames in the browser window is known as a frameset.

To use frames on a page we use <frameset> tag instead of <body> tag. The <frameset> tag defines, how to divide the window into frames. The rows attribute of <frameset> tag defines horizontal frames and cols attribute defines vertical frames. Each frame is indicated by <frame> tag and it defines which HTML document shall open into the frame.

Code frame.html
```
<html>
```

```html
<head>
<title>frame example</title>
</head>
<frameset rows="20%,80%" framespacing="0" frameborder="0">
        <frame src="a.html" name="top" noresize="noresize" />
        <frameset cols="20%,80%">
                <frame src="b.html" name="left" noresize="noresize"/>
                <frame src="home.html" name="right" />
        </frameset>


<noframes>
<body> your browser does not support frame</body>
</noframes>
</frameset>
</html>
```

Code of a.html

```html
<html>
<head>
<title>demo</title>
</head>
<body bgcolor="yellow">
<h1 align="center">NIELIT PATNA CENTRE</h1>
</body>
</html>
```

Code of about.html

```html
<html>
<head>
<title>demo</title>
</head>
<body bgcolor="">
<h1> about us page</h1>
</body>
</html>
```

Code of b.html

```html
<html>
<head>
<title>demo</title>
</head>
<body bgcolor="red">
<ul>
<li><a href="home.html" target="right">HOME</a></li>
<li><a href="about.html" target="right">about us</a></li>
<li><a href="notice.html" target="right">notice</a></li>
</ul>
</body>
</html>
```
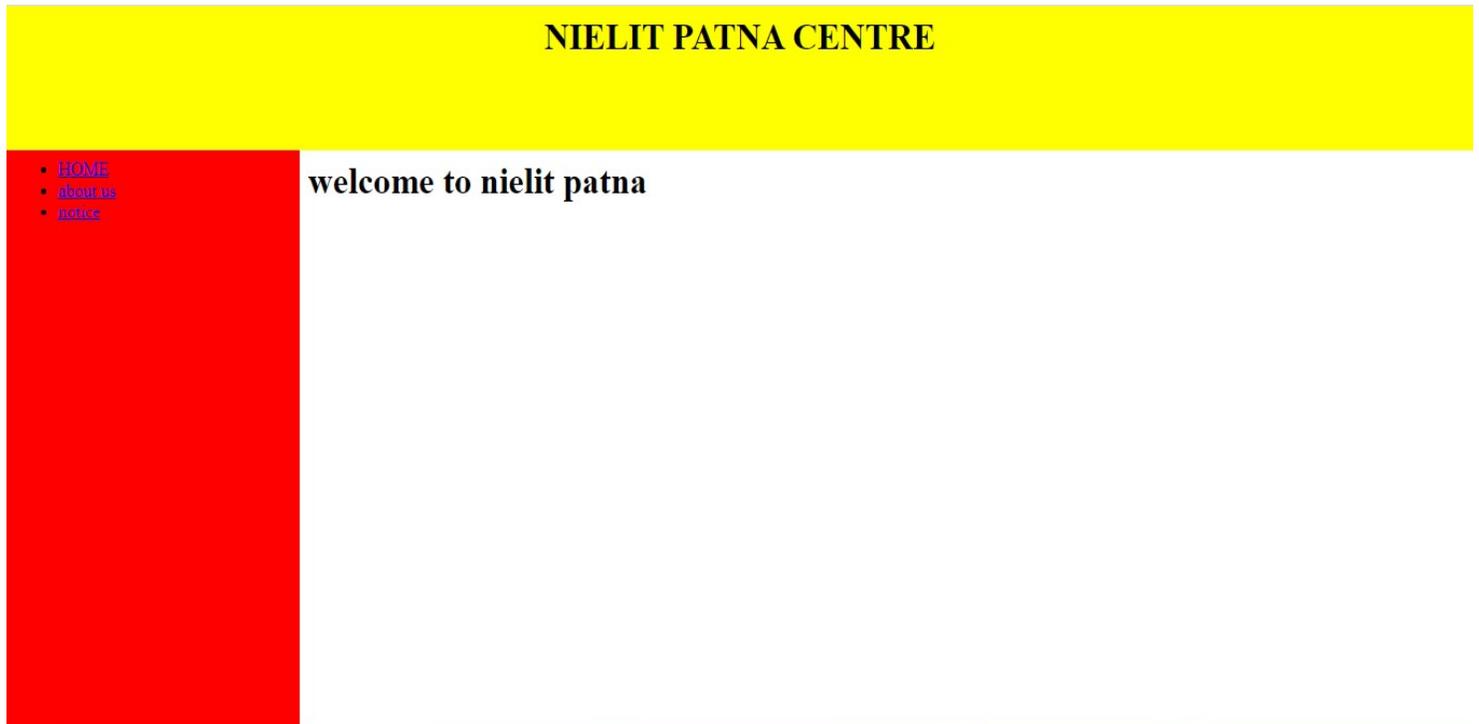
Code of home.html

```html
<html>
<head>
<title>demo</title>
</head>
<body bgcolor="">
<h1>  welcome to nielit patna</h1>
</body>
</html>
```

Code of Notice.html

```html
<html>
<head>
<title>demo</title>
</head>
<body bgcolor="">
<h1> this is latest news page</h1>
</body>
</html>
```

Output:

==========================END OF HTML===========================

Following is the Complete list of HTML Tag for reference only. (All tag is not in your syllabus) . Following table is taken from **https://www.javatpoint.com/html-tags**

Tag name	Description
<!-- -->	This tag is used to apply comment in an HTML document.
<!DOCTYPE>	This tag is used to specify the version of HTML
A	
<a>	It is termed as anchor tag and it creates a hyperlink or link.