

## Web technology

HTML :- Hyper text markup language

What is HTML?

- 1) → "Hyper text markup language"
- "HTML is used for creating web pages"
- 2) → HTML is case insensitive language
- 3) → HTML is not a programming language because logics are not present.
- 4) → HTML is a Markup language, Markup language means the languages used for creating Web pages

Code Editor (or) Text Editor

- i) Visual studio code
- ii) Notepad ++ "more" of basic in editor
- iii) Sublime text
- iv) atom.io

Visual Studio Code

We are using Visual Studio Code has the text Editor we can also used all the above the mention, But visual studio is user friendly code editor and chance's of making mistakes are less, when it is compare with other editor.

Web browser

We are using google chrome as the default web browser, we can also use mozilla fire fox, safari, other browser etc.

## Structure of HTML

1. `<!DOCTYPE html>` → Document type is html & also it will select the current version of html
2. `<html lang="en">` → It indicates the language English
3. `<head>`
4. It is the invisible part and also used to hide the properties from the user
5. `</head>`
6. `<body>`
7. It is the visible part every content should be written in some region.
8. `</body>`
9. `</html>`

## Types of head tag

- 1) `Title`
- 2) `link`
- 3) `style`
- 4) `script`
- 5) `meta`

- 1) `Title` :- Title is used to "name of the output file" (or) title of the page.
- 2) `link` :- Link is used "to link the files"
- 3) `Style` :- Style is used "to add css styles"
- 4) `script` :- Script is used "to add java script"
- 5) `meta` :- meta is used "to hide the properties"

## Tags:-

"~~Eraser~~  
Insert (< >) all the predefined keyword are called also tags.

There are two types of tags

- 1) Single tag :- It is one of type of tag where closing of tag is not mandatory,  
Ex:- <br>, <img>

- 2) Double tag :- It is one of type of tag where closing of tag is mandatory.  
Ex:- <body></body>, <head></head>

## Attributes :-

- "Attributes are used to add extra effect to the web page, in order to make attractive"
- Each and every tag has its own attribute  
we can't merge the attributes of one tag to another tag
- Attributes of body tag

There are 4 attributes in body tag

- 1) bg color (background colour) :- bg color is used to add background color for the web page

Ex:- <body bgcolor = "red">  
→ colour name (or) colour code.

</body>

2) background :- This attributes are used to add background images for the web page

Ex:- <body background = "image.jpg">

</body>

→ If it is present in different folders

Ex:- <body background = "images/image.jpg">

</body>

3) Text :- Text is used to change the colour of the text.

Ex:- <body text = "white">

</body>

→ colour name (or) colour code.

4) Align :- Align is used to specify the alignment for the output

→ align left is by default, if we want to change that towards center (or) right, we can change by using align attribute.

Eg:- <body align = "right">

</body>

or center (or) left (default)

- 1) Heading
- 2) Paragraph
- 3) break
- 4) Horizontal

## ① Heading

There are 6 types of heading tag which help to font size variation

i) `<h1> </h1>`

ii) `<h2> </h2>`

iii) `<h3> </h3>`

iv) `<h4> </h4>`

v) `<h5> </h5>`

vi) `<h6> </h6>`

Ex:- `<h1 heading> </h1>`

### Attributes of heading tag

There is only one attribute in Heading tag that is Align

Ex:- `<h1 align="center"> Hii </h1>`

## ② Paragraph : Let's

→ When we have to insert the content which is more than 2 to 3 lines of code then paragraph tag should be used

→ align is the only attribute in the paragraph

Ex:- `<p> </p>`  
`<p align="center"> </p>`

### 3) Break (br)

- If we want to break the lines we should use break tag.
- It is a single tag.

### 4) Horizontal rule (hr)

- <hr> tag helps to give one horizontal line.
- It is a single tag.

### Image tag

If we want to insert images to webpage we should use image tag.

There are three main attribute in image tag

- 1) src (source) → address of image
- 2) height → px
- 3) width → px

Scrolling text :- Mosque tag used to get Scrolling data.

### Attribute of mosque tag

There are 8 attribute of mosque tag.

- 1) bg color → colour name
- 2) height → px, %
- 3) width → px, %
- 4) behaviour → scroll, alternate
- 5) direction → right, left, up down (ms)
- 6) scroll amount → To increase speed (ms)

- \*) Scroll delay  $\rightarrow$  to decrease Speed (ms)
- \*) loop  $\rightarrow$  number

### Hyper Link

$\rightarrow$  Anchor tag is used  $<\text{a}> </\text{a}>$

$\rightarrow$  Anchor tag is used to create  $\frac{\text{link}}{\text{b/w}}$  one page to another page.

There are 2 attributes in anchor tag.  
href: specify the URL/address of the page that the link goes to.

i) href :- where to go (destination)/address can be on html page or any URL

ii) target :- How to display output.  
parent blank

Eg:-  $<\text{a href} = \text{"scroll.html"} \text{ target} = \text{"_blank"}>$  Click here  $</\text{a}>$

\* Target parent :- target parent is a default it will give the output in the same page

\* Target blank :- target blank helps to create new page for displaying the output.

### Special Tags

$\rightarrow$  Special Tags are presentation Tags  
There are nearly 10 tags

i)  $<\text{big}> </\text{big}>$

It gives the output like little bit bigger than normal text.

ii)  $<\text{small}> </\text{small}>$

Little bit small than normal text.

iii)  $<\text{b}> </\text{b}>$

It gives output in Bold format.

v) <i></i>

It gives output in Italic font style

vi) <u></u>

It gives underline below the text

vii) <strong></strong>

Strong and bold output are same.

viii) <strike></strike>

Gives one strike in b/w of the text.

ix) <sub></sub> (sub script)

Below the text

Eg:-  $\log_{10}$

x) <sup></sup> (super script)

Above the text

Eg:-  $2^5$

x) <em></em>

Emphasise and Italic output are same.

## Audio and video tag:

Audio tag: Audio tag is used to insert audio to web page.

Syntax: `<audio src=" " controls></audio>`  
(or)

`<audio controls>`

`<source src=" " />`

`</audio>`

Video tag: Video tag is used to insert video to the web page.

Syntax: `<video src=" " controls></video>`  
(or)

`<video controls>`

`<source src=" " />`

`</video>`

Frame tag: Frame tag specify inline frame inline frame used to load another HTML page to the current page.

→ It will insert another web page into the parent page

→ They are commonly used for advertisement to insert YouTube format video etc.

Procedure to insert YouTube video: (open any video in YouTube →

→ go to share options → In that share options click options → (copy embed frame code to HTML page → output.)

List :- List is used "to specify lists of information"

There are three type of list

- 1) order list / numbered list
- 2) unorder list / Bulleted list
- 3) definition list

1) order list :- To name the content in different types  
order list is used.

attribute of order list ( $<\text{ol}>$  or  $<\text{ol type}>$ )  $\rightarrow$  default number

- 1) Type  $\rightarrow$  number (default), A, a, I, i
- 2) Start  $\rightarrow$  Any number

Ex:- For alphabet

$\text{type} = \text{"A"}$ ,  $\text{Start} = \text{"7"}$

2) unorder list :- To name the items in different shape  
unorder list is used.

attribute of unorder list ( $<\text{ul}>$  or  $<\text{ul type}>$ )  $\rightarrow$  default square.

- 1) Type  $\rightarrow$  circle, disc, square
- 2) Start  $\rightarrow$  define the start of the list
- 3) Definition list :- Definition list is completely different from order & unorder list ( $<\text{dl}>$  or  $<\text{dd}>$ )

There are two type in definition list

i) Definition term  $<\text{dt}>$   $</\text{dt}>$   $\rightarrow$  define a term

ii) Definition Description  $<\text{dd}>$   $</\text{dd}>$   $\rightarrow$  define description

Ex: <dd>

<dd> HTML </dd>

<dd> Hyper Markup language </dd>

</dd>

## Table

"To insert table to the webpage the table tag is used"

There are 4 subelements in table

1) table header <th> </th>

2) table row <tr> </tr>

3) table data <td> </td>

4) caption <caption> </caption>

### Example:

<body align = "center" text = "white">

<h2 align = "center"> <caption> <font color = "blue"> Student

DETAILS </font> </caption> </h2>

<table bordercolor = "yellow" background = "image.jpg"  
border = "8px" border color = "black" cellspacing = "5px"  
cellpadding = "8px" align = "center">

<th>

<th> <font color = "red"> SNO </font> </th>

<th> <font color = "red"> NAME </font> </th>

CONTACT  
EMAIL

</th>

<tr>

<td> 1 </td>

<td rowspan = "2" > Kartik </td>

<td> 9019102414 </td>

<td> Kartik@123@gmail.com </td>

</tr>

<table>

</body>

rowspan

colspan

Yp <caption> Student details </caption>

<th>	<th> SLNO	<th> Name	<th> Contact	<th> EmailId
<td>	1	Kartik	8722573851	Kartik@gmail.com
<td>	2		98765231	reeth@gmail.com
<td>	3	Manoj		Manoj@gmail.com
<td>	4	Rashmi	98738531	Rashmi@gmail.com

</table>

1) bg color :- To add background color for the table

2) background :- To add background image

3) Border :- To gives row & column's to the table

4) align :- To give the alignment of the table

5) font :- To change the color of the font

6) border color :- To change the color of the border color.

7) cell spacing :- To increase the space in between the cell's

8) cell padding :- To increase the space in b/w content and its border

9) Row span :- To merge the rows.

10) Col span :- To merge the columns.

11) caption :- To give the caption for the table.

## Form

Form tag is used to build different type of form like Reg form, application form etc.

### Job Application form

Name :- <input type="text" value="Enter Your Name"/>	Select Your gender - <input type="radio"/>
Email ID :- <input type="text" value="Enter your Email ID"/>	<input type="radio"/>
Contact :- <input type="text" value="+91"/> (or) <input type="text" value="1234567890"/>	Select Your Subject - <input type="radio"/>
Date of Birth	<input type="radio"/>
Skills: <input type="text" value=" "/>	<input type="radio"/>
upload - <input type="file"/>	<input type="radio"/>

- 1) Name can be given directly in the body tag or by table tag
- 2) input type :- for Name is text
- 3) Placeholder helps to provide the default text like  
Ex :-
- 4) input type :- for Email Id is email
- 5) Input type :- for Contact is tel  
and the value tel can be given by using Value attribute
- 6) Select option can be given by using select tag

- 5) Input type for :- Date of Birth:
- \* To get only date type = "date",
  - \* To get date with time type = "datetime-local"  
Eg:-
- 6) Input type :- for Skills is "Range"
- 7) To give boundary we should use fieldset tag
- Inside that fieldset tag to give any text like  
Select Your gender legend tag should be used
- Single selection button is radio button used  
for selecting gender
- For Multiple selection Eg: Select your Subject  
checkbox button type should be used
- 8) To upload  <sup>Raum</sup> (or) upload photo  
Input type is file
- 9) For Submit button  
Input type is submit
- 10) For Reset button  
Input type is reset
- 11) For the creation of Buttons like Login,  
Signup etc. we used Button tag.  
Eg:- <button> Login </button>

## Special character's:

Special character always start with & end with ;

- 1) &nbsp ; → Non breaking Space
- 2) &cent ; → cent sign ¢
- 3) &copy ; → Copyright symbol ©
- 4) &reg ; → Registration mark ®
- 5) &trade ; → Trademark Sign ™
- 6) &frac12 ; →  $\frac{1}{2}$
- 7) &frac14 ; →  $\frac{1}{4}$

Etc.

## To insert logo

link favicon tag

It is used to insert logo for  
the web page.

## Web Technologies

HTML → Tim Berners Lee → 1991 → Structure/Skeleton

CSS → Hakon Wium Lie → 1994 → Design/Structure/  
Style

JavaScript → Brendan Eich → 1995 → Action  
↓  
first name of JS      Validation  
Behavior

Ex. We can take ① web application like

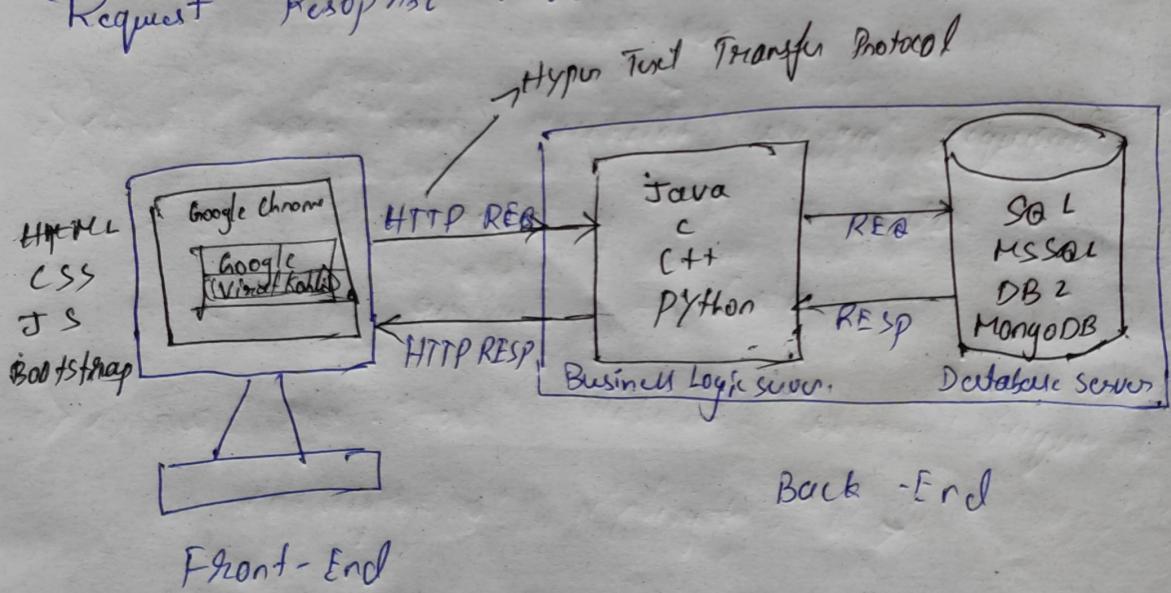
Instagram

→ To create Instagram Login page first we will use HTML

→ To design that login page we will use CSS

→ To store the data info login/signup page we will use JSS

## Request Response Model



## HTML

→ Hyper text markup language.  
→ used to create web pages.

→ when HTML Document is executed by Browser we call it as webpage.

### tag

<p> </p>  
& link alt="shorturl icon" href="https://faviran.images/">

<br>  
<image src="" />  
<marquee behavior=" " direction=" " /> </marquee>  
<a href=" " /> - - </a>

<id="html">  
<a href="#html"> HTML </a>

<details>  
<summary> HTML </summary>  
<p> - - -  
</summary> </p>  
</details>

## Form

- 1) <form> </form> :- It is used to build different type of form. like Reg form etc.
- 2) <input> :- It is used to give the input.
- 3) <input type="text"> type is used to specify the type of input.  
Ex:- <input type="text">, <input type="password">
- 4) <input type="submit" value="Login">  
(or) <button type="submit"> Signup </button> } Submit button to submit the data.
- 5) <input type="Reset" value="clear"> optional used to Reset the value
- 6) <input type="text" placeholder="username">:  
It is used Replace the content on the text box.  
→ To provide Default text line.
- 7) <input type="text" placeholder="username" required>  
:- It is mandatory fill the data.  
It is <sup>(or)</sup> mandatory fill the data.
- 8) <input type="text" placeholder="username" required  
maxLength="10" minLength="6">  
:- It is used restrict the maxLength & minLength  
It gives extra validation.

- 9) `<input type = "number" placeholder = "Enter valid age">`  
number attribute is used to accept only number.
- 10) `<input type = "file">` file attribute is used to allow to upload the file.
- 11) `<label> Adhar card </label>` used to specify the name  
→ NOTE:- if placeholder is not working, we use label tag.
- 12) `<textarea placeholder = "Enter feedback"></textarea>`  
→ `<text area></text area>` is used for allow address, feedback etc.  
→ Because it used give big text box.
- 13) `<label> Gender: </label>`  
`<input type = "radio"> Male`  
`<input type = "radio"> female`  
→ radio button is used to single selection  
→ In radio button → All radio button mandatory having name attribute and name should be same.
- 14) `<label> Skills: </label>`  
`<input type = "checkbox"> Java`  
`<input type = "checkbox"> Reactjs`  
→ check box button is used to multiple selection.
- 15) `<label> Select Your State: </label>`  
`<Select>` → select tag is used to create drop down menu.  
`<option> Karnataka </option>`  
`<option> Tamilnadu </option>`  
`</select>`

- 16) <label> DOB: </label>  
<input type = "date">  
-> date attribute provide the date
- 17) <label> Time: </label>  
<input type = "time">  
-> time attribute provide the time
- 18) <label> Gender: </label>  
<input type = "radio" name = "g" checked> Male  
-> checked attribute is used to default the selecting.
- 19) <label> Gender: </label>  
<input type = "radio" name = "g" checked> male  
<input type = "radio" name = "g" checked disabled> female  
-> disabled attribute is used to disable the button.
- 20) <form action = "----" >  
action attribute is used submitting the form  
else when we click submit button it will  
redirect to another page.
- fieldset is used to give the boundary  
Inside fieldset we use legend tag to  
give any text.

# CSS

CSS :-

- CSS stands for Cascading Style Sheet, which is used to Design HTML Page.
- CSS is a case insensitive language.

→ CSS is used to add styles for the HTML / web page and also add different design for the web pages.  
*(Or)*

Types of webpage

- 1) Inline CSS
- 2) Internal CSS
- 3) External CSS

1) Inline CSS :-

→ To apply style for the contents in same line, inline css is used.

→ Inline CSS is limited for only one html tag.

→ style is used as attribute.

→ It applies only one particular tag.

Ex:- <P style="color: Red;"> J Spiders </P>

<P style="color: Red;"> Q Spiders </P>

<P style="color: Red;"> Py Spiders </P>

→ Inline CSS will repeatedly use property avoid that we can internal / external CSS.

## ⇒ Internal CSS

→ In Internal CSS to apply the style in the same HTML file by using Style as a tag in the head tag.

Ex:- `<style>`

`P { color: Red; }`

→ `</style>` Internal CSS is apply CSS properties to all the tag.

## 3) External CSS

→ In External CSS to apply the style using externally created CSS file and linking that css file to the HTML file.

→ Link tag is used to link the css to HTML file in the head tag.

What happen if we Create Internal CSS instead of External CSS.

→ If there is change we have to visit every page in Internal CSS. But if External CSS only in the file we have change it reflect to all the HTML document where css file is linked.

NOTE:- When ever we add inline CSS first Priority given to inline CSS, then it is internal CSS, and then give priority to external CSS.

Font Properties :- It is used to change font size, font style.

1) font-size :- to increase of text size

Ex:- < p style = "font-size: 150x" > Mahesh </p >

2) font-style :- to change style of text.

Ex:- < p style = "font-style: italic" > Mahesh </p >

3) font-family :- to change style of text

Ex:- < p style = "font-family: chiller" > Mahesh </p >

4) font-weight :- to bold the text

Ex:- < p style = "font-weight: bold" > Mahesh </p >

Text Properties

1) color :- To change the color to text

Ex:- < p style = "color: #Red" > Mahesh </p >

2) text-decoration: none:

By default it is none.

3) text-decoration: underline

It gives underline to text.

Ex:- < p style = "text-decoration: underline" > Mahesh </p >

4) text-decoration: overline

It gives underline above the text

Ex:- < p style = "text-decoration: overline" > Mahesh </p >

iii) text-decoration: line-through :-

It gives strike the text

Ex:- <p style="text-decoration: line-through"> Nelesh  
</p>

Note :- In anchor tag by default it get underline.  
By overcome this we used text-decoration: none

Ex:- <a href="" style="font-size: 20px;  
text-decoration: none;"> Nelesh </a>

3) text-align :- It is used align the text

i) text-align: right

→ It align the text towards right

ii) text-align: left

It align the text towards left

Ex:- <p style="text-align: left"> --- </p>

iii) text-align: justify :-

→ It justify the text

Ex:- <p style="text-align: justify"> --- </p>

4) text-indent :-

→ To provide the space at starting  
of Paragraph.

Ex:- <p style="text-indent: 50px;">

## 4) text-transform :

→ text-transform is used to convert upper, lower and capitalize.

### i) text-transform : lowercase :-

→ text - transform : lowercase is convert text

Ex: `<h1 style = "text-transform: lowercase;"> Hi Mahesh </h1>`

### ii) text - transform : uppercase :-

→ text - transform : uppercase is convert text

Ex: `<h1 style = "text-transform: uppercase;"> Hi Mahesh </h1>`

### iii) text - transform : capitalize :-

→ text - transform : capitalize is gives starting letter should be in uppercase.

## 5) text - shadow :-

→ It is used to apply shadow to text.

NOTE :- It accept 4 value

text - shadow : 12px 12px 5px # Red

## 6) letter-spacing :-

→ It providing space b/w letter

`<h1 style = "letter-spacing: 20px;"> Hi Mahesh </h1>`

## 7) word-spacing

→ It providing space b/w each word.

`<h1 style = "word-spacing: 20px;"> Hi Mahesh </h1>`

## ⇒ line-height

line-height is provide space b/w each

< p style="line-height: 60px"> ----- </p>

## Display Properties

NOTE:- In HTML we have 2 types of elements

### 1. inline-level elements:-

will be displayed in the same line and  
css properties will be applied  
only to the content.

Ex:-

P {  
background-color: red;  
display: inline;  
}

a {  
background-color: red;  
display: inline;  
}

### 2. Block-level Elements:-

Will be displayed in the different line and  
css properties will be applied  
to the whole block.

Ex:-

P {  
background-color: red;  
display: block;  
}

a {  
background-color: red;  
display: block;  
}

NOTE

1) anchor tag will be inline level element

2) Paragraph tag will be block level element

> display: none / visibility: hidden:-

It is used to hide the elements

Ex:- <h1 style="display: none"> Maharashtra</h1>

<h1 style="visibility: hidden"> Maharashtra</h1>

NOTE:- display: none is not occupying the space

visibility: hidden is occupying the space.

### Background Properties

& background-color:-

It is accept only one colour

Ex:- body

{ background-color: red;

}

& background-image:-

It is accept multiple colors

Ex:- body

{ background-image: linear-gradient (red, green, blue);

}

body

{ background-image: radial-gradient (red, green, blue);

}

body

{ background-image: url("image url");

}

& background-repeat:-

Ex:- body

{ background-repeat: no-repeat;

}

## ④ background - position :-

To change the position of background image.

Ex:- body

Background - Position:- center center  
↓  
center from left center from top

## ⑤ background size :-

It is used to set the background image size.

Ex:- body

background - size :- 100% 100% width height

## ⑥ background - attachment :-

By default attachment is scroll.

If scroll the background image. to avoid this we use fixed.

Ex:- body

background - attachment :- fixed

⑦ alpha value / CSS opacity :- It is used for transparency of the colour.

Ex:-

body

background - image : linear-gradient(rgba(225, 0, 0, 0.5), rgba(0, 128, 0, 0.5))

alpha

## Selectors

"Selectors are used to select html elements based on tag name, class name, & id name, which you want to add style".

### Type of Selectors

- 1) Elements Selector
- 2) Group Selector
- 3) class Selector
- 4) Generic class Selector
- 5) Id Selector
- 6) universal Selector

#### 1) Elements Selector / Type Selector:

→ Select only one type of element, we use elements selector.

Ex: h1 {

color: red;

p {

color: red;

}

#### 2) Group Selector (,)

→ Select more than one element, we use group selector.

→ (,) indicate group selector.

Ex:

a, h1, p

{

color: red;

}

### 3) class Selector (.)

→ Select the Particular tag which is having class name. we use class Selector.  
NOTE: class Selector are used to add style for multiple content

→ (.) indicates class Selector

Ex: h1.abc

{

color: red;

}

### 4) Generic class Selector (.)

→ To select all tag's which is having class name, we use generic class selector.

→ (.) indicates generic class selector.

Ex:

.abc

{

color: red;

}

### 5) Id Selector (#)

→ Select all tag's which is having the id name. we use id selector.

→ (#) indicates id selector.

Ex: #ding;

{ color: red;

}

NOTE:

If both selector having Same Properties then the first Preference is given by Id Selector.

→ Because Id selector will Override the Same Properties of all the Selectors.

b) Universal Selector (\*)

→ Select all the tag's use universal selector.

→ (\*) indicates Universal Selector.

Ex

\*

{  
color: #c00;

y

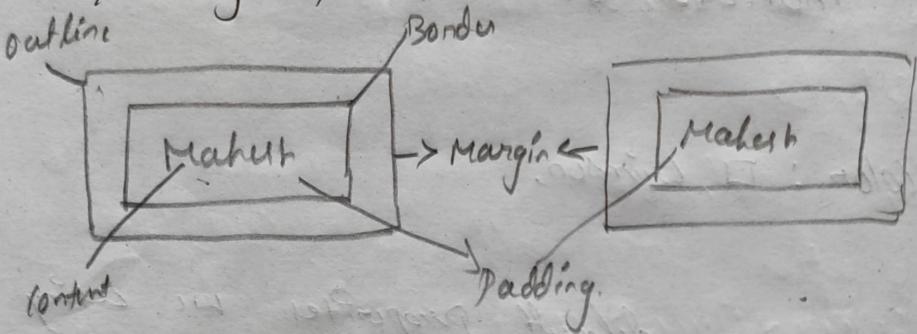
NOTE! By using different properties we using universal selector.

## Box Model

To add the style for the layout  
box model properties are used

There are four type of Box Model

- 1) border properties
- 2) outline properties
- 3) Padding properties
- 4) margin properties



### 1) Border Properties

→ Border Properties is used "to apply border to the content we use border properties"

→ Border properties like border width, border color, border radius etc.

### 2) Outline Properties

→ Outline Properties is used "to give outline above the border, outline Properties are used"

→ Outline Properties like outline color, outline width, outline left, outline style

### 3) Padding Properties

→ Padding Properties is used "to give space b/w Content & its border".

→ Padding Properties like Padding left, Padding right, Padding up, Padding bottom.

### 4) Margin properties

→ Margin Properties is used "to give space b/w & outline is called Margin properties"

→ Margin Properties like Margin left, Margin right, margin up, margin bottom.

Ex:-

h4 {  
border: 2px solid black;  
outline: 2px solid black;

padding: 20px;

margin: 50px;

outline-offset: 10px;

Space b/w border & its outline

}