HTML

Hyper text Markup language
↓ ↓
dynamic Predefined
↓
automatically linking

By using some pre-defined text and make some changes automatically.

Tags:-

Heading tag :-

→ It is used to make the text bold and increase the height of the text

→ There are 6 types of heading tags

```
<h1> ... </h1> — Big size
<h2> ... </h2>
<h3> ... </h3>
<h4> ... </h4>
<h5> ... </h5>
<h6> ... </h6> — small size
```

Paragraph tag :-

→ It is used to convert the text into paragraphs.

Ex:- ...

Break tag
 :-

 tag is used to break the text and move to the next line.

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<hr> tag :-

<hr> tag is used to break text and draw a horizontal line ~~in b/w the~~

<Span> tag :-

To create the content in Seperate, but the text will be present in same line.

Ex:- Telephone :
1234567

```
<!DOCTYPE HTML>
<html lang = "en" >
<head>
    <meta charset = " UTF-8 " >
    <meta-name = " viewport " content = " width=
                device-width ,
     initial-Scale = 1.0 " >
     <title > Document </title>
</head>
<body>
<p> Name : <span style= " color : orange ; " >
                jspiders </span></p>

</body>

</html>
```

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Html : Styles

bgcolor :- If we want to change the background colour

Ex :- bgcolor = "black"

text :- It is used to change the color of the text

Ex :- text = "Red"

align :- Used to change the alignment i.e., left, right, center

Ex :- align = "right"

background :- It is used to set an background image

Note :- If the image is in same folder then we use "./"

If the image is in outside the folder then we use "../"

Ex :- background = "./download.jpg"

Character Formatted Tags

  :- It is used to bold the text

  :- Used to italic the text

<u> </u> :- Used to Underline the text

  :- Used to bold the text

, :- emphasize Used to italic the text

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<big> </big> :- It is used to increase the size of the text.

<small> </small> :- used to decrease the size of the text

<strike> </strike> :- Used to strike the text

 :- Superscript is used to print the text above the text

Ex :- 200^2

 :- Subscript print the text below the text Ex :- $log_{10} 2$

Image tag :- Used to add an image, it is a singular tag

Syntax :- <img src="address" height="pixels" width="pixels" alt="text">

→ Src means source address of the image it can be done by 3 way

1. By using :/
2. By using ../
3. By directly copying the address of the image.

→ height means height of the image

→ width means width of the image

→ alt means if the source (src) is not working then the alt will work and display the msg in after.

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Creating a link

It has an anchor tag <a> ... it is used to create the link of the another page.

→ It provides the link between two (or) more webpages.

Syntax :- ----

(or)

....

→ Here, target means to open the next webpage in the same tab (_self), (or) it will open in different tab (_blank)

→ href means address of the webpage.

Audio tag :-

<audio muted controls src = "./address">
</audio>

video tag :-

<video muted controls src = "./address"
autoplay loop height = "300" width = "500">
</video> (Autoplay works when it's muted)

→ iframe means inline frame used to play the video in the webpage by copying the URL every video will not play, the videos which donot have copyrights will play.

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Ex:- click on more and ~~copy~~ click on embed (< >) and copy the address.

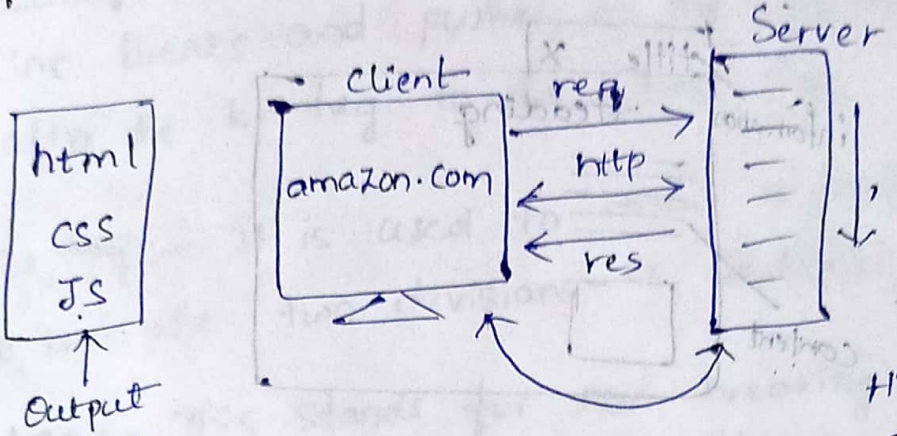
Marquee Tag

<marquee direction = "right / left / up / down"
height = "pixels"
width = "pixels"
behaviour = "scroll / slide / alternate"
Scroll amount = "pixels"
Scroll delay = "pixels" millisec
loop = "pixels" >
~~</marquee>~~

Slide - used to scroll only once, starts Outside the page
alternate - starts inside the page
Scroll - starts Outside the page
loop - how many time looping we want we can set

Domain : www.name.com

Ip address : unique address Ex: 1.27.63



HTML → Structures
CSS → Style
JS → functionality

HTML : Hypertext Markup Language

Tags or elements:

→ single tags <tagname/>

→ Double tags <tagname> ... </tagname>

Structure of HTML

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

HTML is a markup language and used for web development. All the content for a webpage is written using tags or elements.

<html> → it specifies the root of an html document.

<head> → Head tag represents the metadata of an html document.

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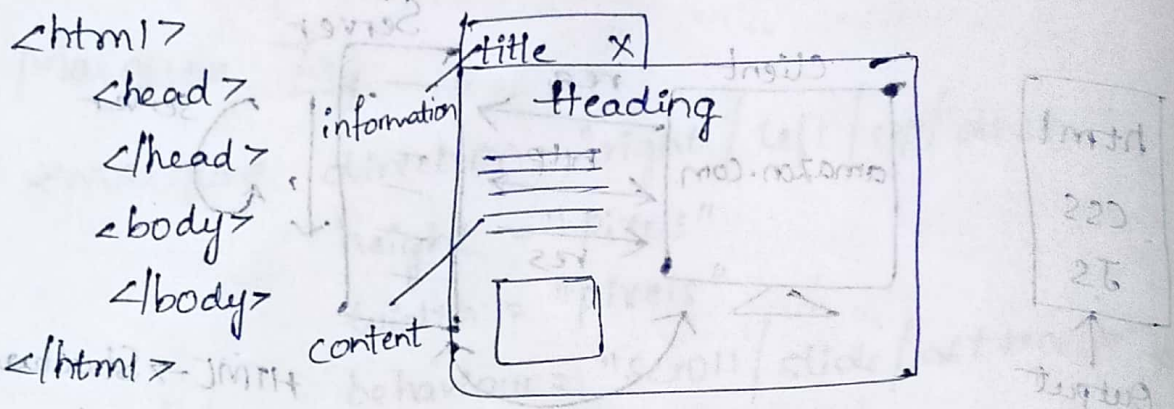
<body> → Body tag represents the content of a html document.



<title> → used to display title or name of a webpage.

<heading> → It is used to define headings of a page in different levels & it is done by h1, h2, h3, h4, h5, h6. The most important heading is written using h1 tag.

→ The font size goes on decreasing from h1 to h6

→ By default all the headings will be bold.

<paragraph>:

→ p tag is used to display paragraph or long description.

→ paragraph will be regular sized texts.

: line break

 : non-breaking space

<hr>: horizontal rule

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Attributes

br tag :- It is used a single tag that is used for line breaks and pushes all the contents that come after the br tag to the next line.

hr tag :- It is used to draw a horizontal line to seperate two divisions or sections.

nbsp :- This stands for non-breaking space used to give space in between the contents.

Attributes

- Attributes are the properties that has the ability to change the behaviour of an element and also adds the additional functionality for the element.

Syntax :- <tagname attribute = "value"> ___ </>

- Attributes are always written within the start tag of an element.

- Images can be displayed with the help of img tag
- Image tag is a single tag that has four attributes

Src (source) - This contains the path or an address of an image.

height & width - used to alter the height and width resize the image

alt (alternate) - when the image fails to display the text written within the alt attribute will be displayed as an alternate of image.

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Character formatting tags :-

* Bold → <b> ,
* Italic → <i> ,
* underline → <u> , <ins>
* Big → <big>
* Small → <small>
* Strike → <strike>
* Delete → <delete>
* Subscript → <sub>
* Superscript → <sup>

Marquee tag :-

Marquee tag are used to create Scrolling contents

Attributes of marquee tag

1. Behaviour :
   * It specifies the type of scroll
     → Scroll (default)
     → alternate
     → Slide
2. ~~Attribute~~ Direction :
   * It specifies the direction in which the content should scroll
     → Up → Right
     → down → left
3. Scroll amount :
   * Using this attribute we can control the speed of scroll

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* Higher the value higher the speed.

4. bgcolor:
- used to change the background colour of marquee section.

5. Height + width:
- We can alter the height and width of marquee section.

Links

Anchor tag :-
Anchor tag is used to create links that helps us to redirect or navigate between different webpages

Attributes of anchor tag
- href [hyper reference] - It specifies the destination path or address of the link.
- The href values can be url's of the different web pages or path of specific file.
- target:
- It specifies where to open the destination page
- By default all the links opens within the same page and "_blank" will open the page in a new tab or a window.
- Images can be made as link by writing the image tag within anchor tag.

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Media tags

- we use audio and video tags to display media files like mp3 file or mp4 file.

Attributes

- Sr (source) → it defines source or path of the file
- Controls → It defines various options to control a vide or audio file [play, pause, accelerate, mute, unmute]
- Muted → It mutes the video or audio by default.
- Autoplay → This plays the file as soon as the page loads
- poster → it displays an image before the video starts playing.
- loop → The vide or audio file keeps on playing continuously.
- Height & width → we can alter the size of video file

Audio tag doesnot support poster, height & width attributes, autoplay.

Lists

To display the similar type of item we can make use of three types of lists in html

1. Unordered list :-

It is denoted by <ul> where there is no importance for the priority of item.

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```
<ul>
  <li>
  <li>
  <li>
</ul>
```

- All the list items are written within <li> tag.

Attributes:

* type → it specifies the type or style of the unordered list.
  - → disc [default]
  - → circle
  - → Square

2. Ordered list:

The is used to display the list of items where the priority is given importance.

* type → It specifies the type or style of Ordered list
  - Upper Roman
  - Lowercase Roman
  - Uppercase Alphabets
  - Lowercase Alphabets

* Start → It specifies the start index of the Ordered list
  - The value for start attribute will always be number

3. Definition list:

- It is denoted by <dl> tag which is used to describe a list of lines
- The term is written within <dl> tag and <dd> tag is used to write the description for the term.

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```
<dl>
  <dt> html </dt>
    <dd> -- </dd>
</dl>
```

Iframes :

This element is used to display an active document or a video in your webpage.

Attributes

→ src : Contains the source of the document.

→ frame border : add an outline border for the document when the value is one else zero

→ allow : It contains all the youtube supported features for a particular video.

→ allow fullScreen : It enable the fullscreen option for a video

→ height & width : Used to alter the height & width.

Meta tags :

→ Meta tags are snippets of the code that describes a page content

- This meta tags will not display on the webpage and instead sends the message information that helps the browser or the search ~~en~~ engine what a web page is all about.

- Meta tags can contain data like: author information, description, about webpages, keywords related webpages etc.

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Tables

- Tables are used to display data interms of rows and columns. Html use table tag to design a table which gives outer structure for a table. Inorder to create rows for a table use <tr> tag.
- The heading are written using <th> tag and <td> tag used for data or value.

Rowspan & colspan

Rowspan & colspan are the attributes gives to the <th> and <td> tag which is used to specify the no. of rows and columns to merge.

- Rowspan attribute merge more than one row
- colspan attribute merge more than one column.

Forms

- In html a form is used to collect the user input and sends it to the server for futher processing.
- Form element is used to create an html form where the data or values is entered using input tag.
- Label tag is used to name to particular input tag
- textarea : For large inputs we use textarea tag where the size can be varied using rows and column attribute.

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Select tag: It creates a drop down list where the user can select from the list of options.
-options are displayed using option tag

Attributes of input tag:

1. type:
It displays the type of input that a user should enter.
- list
- password
- checkbox
- tel
- date
- submit
- number
- radio
- reset
- email
- file

2. Name:
- It specifies the key where the value will be stored in the backend.

3. placeholder:
Used to display texts written the input field before the user enters the data.

4. required:
Used to make an input field mandatory.

5. Minlength & Maxlength:
It specifies the no. of characters must be entered in the input field.

6. Min and Max:
Specifies minimum & maximum value that a user should enter.

7. Action:
It specifies the action should be performed once the file is submitted.

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CSS

(Cascading Style sheet)

repeated style

There are 3 ways

1. inline css
2. internal css
3. External css

1. inline css :- style is a property

```
<body>
  <h1 style="color: blue; background-color: aqua;">
    Hello </h1> (Inline overwrites the internal and external css)
</body>
```

2. Internal css :- style is a tag <style> </style>

- we will use inside the head tag.
- If we will apply internal style it will affect to the whole page

Ex:- if we use <p> and use internal css and it will affect to the whole <p> in the body

```
<head>
  <style> p {
            background-color: brown;
            color: white;
  </style>
```

3 External css :-

we can write the code outside the html and we can link the page with our html doc by using <link> tag

<link> tag has 2 properties

```
<link rel="relation"
      href="hyper reference" >
```

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Style.css

ex:- ~~<style>~~

```
p {
    background-color: blue;
    color: purple;
}
```

css-html

```
<html>
  <head>
    <link rel="stylesheet" href="style.css">
    <link rel="icon" href="img address">
  </head>
</html>
```

for icon

Background

background-color:

background-image: url( )

background-size: contain
cover

background-position: top, bottom, left, right, center

background-repeat: repeat, no-repeat, repeat-x, repeat-y

color:

height: pixels (100px);

width: pixels (200px);

background: linear-gradient (top, color, color, ...);
- mixing of colors
- top, bottom, left, right, 120deg
- 120deg → degree

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Font

font-size : pixels

font-weight : bold, lighter, 100-900

font-family :

Text

Text-align : left, right, center

Text-indent : pixels.

Text-shadow : 0px 0px 0px color;

- 0px → Move left / right, X-axis, -ve (left), +ve (right)
- 0px → move top / bottom, Y-axis, +ve (bottom), -ve (top)
- 0px → blur the text, Blur effect
- color

letter-spacing - pixels (Give space b/w letters)

word-spacing - pixels (Give space b/w words)

Symantics

There are 2 types of symantic tag

Symantics

- Symantic tag
  - header
  - footer
  - aside
  - section
  - nav
  - article
- non-Symantic tags
  - div
  - Span

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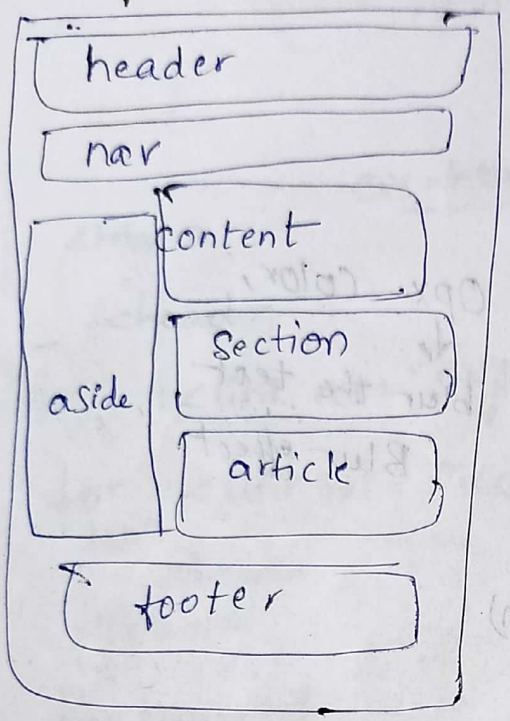
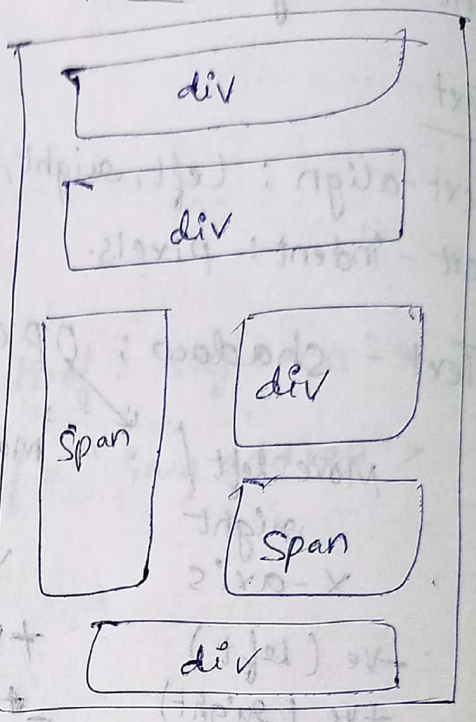
- Symantics are the names given for the sub divisions of html

Symantic



non-Symantic



Types

1. Symantic tags :- The tags are the elements which have some particular meaning in their name is known as symantic tags

2. Non-Symantic tags :- The tags which don't have any specific meaning in their name is known as non-Symantic tags.

* Selectors

Types

Universal → * (It will apply for every tag) Least priority

Type → h1, p, div ----

Class → .classname (. operator)

Id → #idname (# operator) — High priority

Priority

Universal < type

type < class

Class < Id

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Group selector (,) : we can combine more than one tag

```
h1, p, d1 {
}
```

* Combinators :-

will use some operator to combining two (or) more tags.

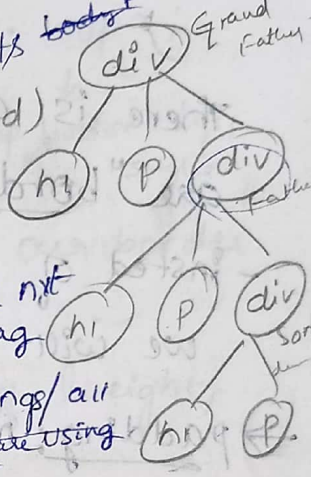
Types

Descendant (multiple generation of child) - It selects all the childs inside its parent

child - It only selects its own child.

adjacent Sibling - it will select the immediate next tag

General sibling - it will select all the Siblings/ all the tags which we are using



- Descendant is used by using space

Eg :- .GF h1 {
color: red;
}

- child is used by using ">" symbol

Eg :- .GF>h1 { color: red;
}

- adjacent Sibling is used by "+" symbol.

Eg :- h1+p {
color: red;
}

- General Sibling is used by "~" tilde Symbol.

h1~p {
}

All the <p> tag will Select in the same generation.

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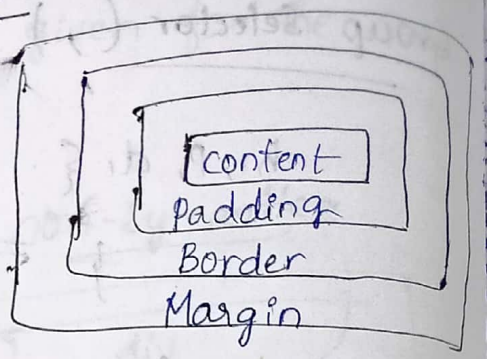
Box Model



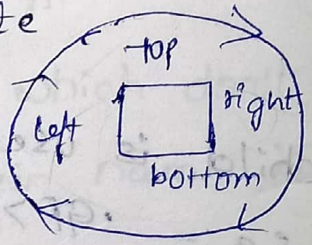
eg:- h1 {
height: 100px;
width: 100px;
background-color: aqua;
~~bact~~
border-width: 5px;
border-color: red;
border-style: groove / dotted / solid / dashed;
}

- There is a property for all border properties they are "border: 10px red dashed;"
- insted of border-width, border-color, border-style we will use "border" attribute.

→ padding: means space b/w the content & border

padding-left: 100px;
padding-right, padding-top, padding-bottom.

- we can also mention all the Padding properties by using only one padding attribute



padding: top-right-bottom-left
clock-wise direction

- If we will give one value in padding attribute it will take top, bottom, left, right.
- If we will give two values in padding attribute

padding: 10px 100px;
~~left~~, ~~right~~ ~~top~~, ~~bottom~~
~~top~~, bottom left, right

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- After border the space left over is called as "margin"
- "Margin" helps us to increase the space outside the border.
- Only span tag margin won't work

margin-top:/ margin: bottom/ margin: right/ margin: left

margin: 100px (or) 10px (or) margin: 100px;
- 100px → top/bottom
- 10px → left, right
- 100px → top, bottom, left, right.

- Border-radius: help us to curving our borders.

Eg:- border-radius: 200px;

→ we have to give half of the length of height, width

border-top-right-radius: 100px;
" bottom-left- " : 100 px;

Eg:-
→ box-shadow: 10px 10px 15px blue;

Display

1. inline
2. block
3. inline-block
4. none

block:- Height & width work
Contains contents will take one whole block of space. It will display contents one below each other.

inline:- Content of inline will display in the same line
Height & width will not work

- TO change the block to inline and inline to block we will use display attribute

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Eg:- display : block;
display : inline;

3. inline-block :-
Height and width also changes and contents contains in the same lines

4. none :- (it doesnot display the content) when we want to hide the content in different dimensions.

hamburger (if we will reduce the size the contents will come under "≡" and while we increase size the ≡ will dissapear (TO dissapear the content we will use none)

5. flex :- It is supposed to be set for the parent
It will align all the childs into same line without using inline-block
- It will affects only its own child.
- It is not supposed to set for the child
- we can align the child position by using align-items : end (means bottom) // vertical align
align-item; start (means top)
align-item; center

- without using multiple inline-block we can directly apply it to the body tag bcoz it is the parent & all the tags inside that.

~~vertical~~ Justify-content :- Start / end / center (horizontal align)

- Justify-content :- Space-around / space-between / Space-evenly
it is also used to give the equal space b/w the content.

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- TO align-item, justify-content we will use display: flex.

special Pseudo properties

we have 2 types
1. pseudo elements
2. pseudo classes.

1. Pseudo Elements :-
- TO select some specific object in webpage.
- we can make use of pseudo elements by using double colon "(::)"
- The elements are
  (i) first-letter - first letter will change
  (ii) first-line - first line will change
  (iii) before — position where we can display something before the content
  (iv) after → After the content/statement we can display something (img/text)
  (v) placeholder - to select the text in placeholder we will use (input::placeholder).
  <input placeholder="Enter" type="text">
- before, after will use content attribute and write the text and by using url( ) we can place an image.

```
p::first-letter
{
  font-size: 100px;
  color: red;
}
```

```
h1::first-line{
  color: blue;
}
```

```
h3::before
{
  content: url(address)
}
```

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h3 :: after

{

content : text ;

}

2. Pseudo Classes :-

- Behaviour for an element
- we will use by using "(:)" single colons

Visited :- when we click on the link and came back the color will change.

- It is used only in anchor tag.

Active :- we can change the color the text the color will change when we click on it, "it will blink".

Focus :- it is only used in form tag. when we click on the focused text it will change" until we will click on some where else in webpage.

transition :- Used to give the effects

eg : transition : 3s ;

(pass by some obj)

Hover ; - it can use on any tag

we can just move the mouse on the content it can change the content.

Focus eg :-

```
button : focus {
    font-size : 40px ;
    border : none ;
    color : white
    padding : 20px, 50px ;
    background : linear-gradient
    ( color2 color1 ) ;
}
```

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Transformation

We can change one object from one shift / direction to another shift / direction.

- There are 13 properties

(i) transform: rotate (90deg);

X-axis, Y-axis, Z-axis are applied on rotate

rotate X - rotate on X-axis

rotate Y - rotate on Y-axis

rotate Z - 'rotate' also works as rotate

(ii) transform: skew (90deg);

It will strech itself so much and it will rotate.

skew x & skew are same it will strech on x-axis

skew y - it will strech on y-axis.

(iii) transform: translate (100px); - toward right (-100x px) - toward left

Move from one place to another place.

~~transform~~ translate x and translate it can move horizontal

translate y - move toward vertical

(100 px) toward down

(-100 px) toward up

translate z - we can observe movement on 3D screen not in 2D

(iv) transform: Scale (2) multiply the size 100 * 2 = 200 px

we can resize the object

Scale x - It will change the width of the content/obj

Scale y - It will increase on Y-axis change height

Scale - It will increase all the direction (Scalex, scal y)

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Position

- We can learn how to change the position of the tag.
- We can move an obj from one place to another.
- There are 5 types of position.

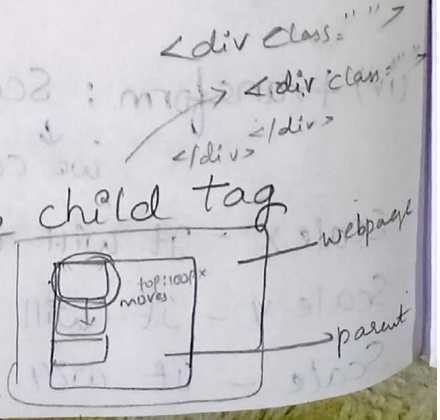
1. Static
2. relative
3. absolute
4. fixed
5. Sticky

- TO move object we have some properties
  - (i) top - It moves from top to bottom
  - (ii) bottom - It moves from bottom to top
  - (iii) left - " " " left to right
  - (iv) right " " " right to left

1. Position : Static :-
- By default every element in html is static
- If the element is static top, bottom, left, right won't work.
- Static means fixed position it won't move the position.

2. position : relative :-
- The obj moves from parents "initial/original position."
  if the tag is "relative"
- It "relates" (belongs) to its parent.

Ex :-
```
Position : relative ;
top : 100 px ;
left : 20 px ;
```



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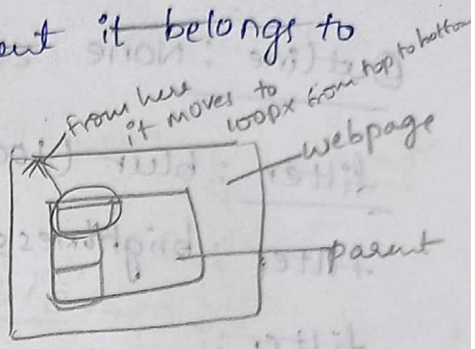
3. position: absolute :-

- The content not belongs to the parent it belongs to the webpage."
- It mores the original position of the webpage
- Once child come out of the parent it belongs to webpage.



Eg:- parent : absolute;
top : 100px;

4. position: fixed :-

- It is same like absolute
- The difference is when it is fixed to the screen if we move the webpage the fixed content will won't move.

Eg:- parent : fixed
top : 0px;

5. position: sticky :-

- It is a combination of relative, fixed.
- Once it reach some point like (top : 100px) of the webpage it is fixed. It will be fixed until the parent is there on the webpage once we scroll the parent the fixed part will also move.

Eg:- parent : sticky
top : 30px;

Text-decoration :- It is used to remove the underline from anchor tag.

Eg:- text-decoration : ~~Underline~~ none;

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Z-index :- It is used to move front and back of the webpage

Ex :- z-inder : 1 ;

Outline : None

filter : blur (100px), (10px), (-100px)

filter : brightness (100%.) (-10%.), (10%.)

filter :

mix-blend-mode : darken, lighter, luminosity

Color pick eye dropper with • chrome extension

Icons

* font awesome icons

↓

first link (font awesome cdn)

↓

add the link inside head tag

Scanned with CamScanner