CCS stand for cascading style sheet. css gives style to Raw HTML.CCS is used to give style to our webpage. CCS is used to make website responsive. Takes responsibilities our website.it make our website beautiful and modern looking.

Syntax of ccs

Selector {property: value}

Anyone can be selected by three ways 1 tag name 2 id target #sign 3.class target .dot and also we can select by group e.g. p, header, figure, footer{property: value;}

Adding of ccs

Three ways to adding ccs

Inline CCS: is added to the element directly using style attribute

Internal CCS: is kept inside the head tag <style>

External CCS: is kept separated inside a .ccs style sheet.

What is a selector?

CSS selectors are used to find the elements whose property will be set. Selectors are targeting the html element.

Types of CSS selector

1 CSS element selector

2 CSS id selector

3 CSS class selector

4 CSS grouping selector

5-CSS attribute selector element [attributes]

6- Combine selector

There are three types of combinatory selector

1. **Descendent combinatory selector (child any stage)**

**.red-p span** {color: red ;}

**.red-p** means parent class “**span**” means child of “**red-p**” if this property is used to when (parent “.**red-p** ka under **span** ho to ya property applied hogay ”)

1. **Div. > p** “**child combinatory (direct child)**” (this mean div ka bad p tag hu vha pa lago ho)
2. **Div+ p “adjust combinatory** (**right after sibling**)”(vo paragraph jas ka peahela cabling ha vo div ho)
3. **.red-p ~ span “normal sibling combinatory(all sibling )”**
4. **H1, h2,p1,div” general sibling selector”**

CDO selector we can target the html element

Li: nth- chil(4)this mean we target the element li four list

Li:nth-chil(even/odd) target the element even or odd

Note If we want to add style every 2 number after then we target the element “li:nth-child(2n+0)

**Before and after Pseudo selector:**

If we want to add before content then we used (tagname: before /after {content””})

Front

**Ttf otf woff** are the support font format

**Web safe front: these** are those Front they are preinstall on o/s.

**Web Front:** these are those fronts which can be import for web

Front used website: **Google front**

**Front family**: is used to change front in our webpage.

**Front size:** is used to change the size. One pix 1/96 inch

**Front weight**: is used to front italic, bold son on.

**Front style:** is used to add style like italic

**Letter spacing:** used to space between one characters to another

**Font-variant: small-caps** is used to when we want all letter capital but it size is small.

**@front-face {**font-family: random-name ;

Give path

Scr:url (path of the font);

}

This is used to download font.

Short hand font. font: font-style font-variant font-weight font-size font-name

Color

Htpps//:www.htmlcolorcodes.com

Color: property is used to change the color of the font.

* Color by name e.g. color: red;

1. **Color by rgb**: if we used (rgb) then we used formula of the color, color: rgb(we enter the value of red 0,green 5,blue 0)

Rbg (numbers are between 0 to 255)

Rbga (numbers are between 0 to 255) ”the “a” is alpha used to transparent background, the alpha value is 0 to 1.

1. **Hex #ffggbb (ff” red” gg” green” bb “blue”)**

**Hexa decimal values between 00 to ff**

1. Hsl (huge saturation lightness)

* Huge is a degree on the color wheel from 0 to 360. 0 is red, 120 is green, and 240 is blue
* Saturation is percentage value, 0% means a shade of gray, and the 100% is the fully color
* Lightness is also percentage value 0% black and 100% white.

1. Hsla (huge , saturation,lightness,a)

Color by Hex: color can used in our website used (#fff) and color property.

Also these color property are used to change background

Height , weight ,border

These are used to add border: border (all side applied border) top border, bottom border, left border, right border.

If we want to applied radius at individual side (corner round) then we used this formula [border-top-let-radius: 6px;] also we used bottom, right, left.

Height: property is used to set height to background.

Width: property is used to set width background.

Border radius: is used to round a corner.

Border-style: is used add border style.

Border color: is used to set border color.

**Table**

Border-collapse: collapse;

Border-collapse: separate;

Border-spacing: 2px;

Caption-side: bottom;

Empty-cell: hide;

Table-layout: fixed/auto

What is difference between border style and color?

Note: if we want to add different color in our border then we used top border, bottom border, left border, right border.

Background

Background-img: url(source link); this is used to add background image.

Background-size: contain “fit and image fully visible”

Background-size: auto “display it original size”

Background-repeat: no-repeat/cover: this property is used to if the backgrounds have multiple pic show then we want to show one pic then we used that property.

Background-position(x y): this property is used to background pic/color manage position, e.g. Background-position (top center), Background-position (12px 2px),

Background-size: is used to set background size.

**Background attachment property**

**Background-attachment: fixed “background fixed and our content move”**

**Background-attachment: scroll “both are scroll at the same timecontent&bg”**

**Background-attachment: local**

**Background-attachment: local scroll**

**Background-attachment: scroll local**

**Short hand of background**

**Background: color url() repeat top Centre**

**Text**

**Text –transform: capitalize/uppercase/lowercase/full-width/full-size-kana**

**Line-height: 3px;**

**Line-spacing:**

**Font-weight: 4px is used to font fat or think**

**Color: red “change font color”**

**Text-align: justify** “used to fix the text on box and manage automatically space”

**Direction: ltr/rtl**

**Vertical-align: top/middle/**

**Text-decoration: line through**

**Line-height: 44px**

**Text-indent: 3px** “this is used to move forward”

**Letter-spacing: 3px**

**Word-spacing: 44px;**

**White-space: pre** (it is similar to pre tag)

**White-space:** no-wrap (is used to when we doesn’t need line)

**Word-wrap: break-word**: If the parent has greater than word then we want to add some test on that line some text on another line.

**Writing**-**mode: vertical-lr** is used to write text to vertical.

**Text/box shadow**

Text shadow are used to text is not show due to background image problem then we used shadow

**The syntax is box-shadow: offset-x offset-y blur-radius spread-radius color;**

**The syntax is text-shadow: offset-x offset-y blur-radius spread-radius color;**

Box-shadow:10px(x-axis) 10px(y-axis) 2px(blur radius ”mean how much light shadow color ”)12px(separate the shadow “how much separated the radius four side”) color

If we want to box shadow upper side then we used **negative** number. Down side positive number

if we want to (under ke tharaf radius ko baraya jaya tu us k leya “box-shadow: inset offset-x offset-y color”)

i we want **multiple shadow** in box then similar this but used coma (shadow: **inset** offset-x offset-y color”), (shadow: inset offset-x offset-y color”),so on

Filter: blur (44px);

Filter: brightness/contrast (77%)

Filter: **drop-shadow (horizontal vertical blur color)**

**Filter: grayscale (44%) to convert image black and white.**

**Filter: hue-rotate (44deg) is used to effect relative to color wheel**

**Filter: invert 44%)**

**Filter: opacity (44%)**

**Filter: saturate (44%)**

**Filter: sepia (44%)**

**Image-spirit: are used to when we collapse images and used one image that collapse**

Resize

Resize: none

Resize: both

Resize: horizontal/vertical;

**For image**

**Object-fit: contain;**

**Object-position: top left**

**Pseudo-class**

**One element ka special state ko pseudo-class khata hay.**

**Pseudo-class**

**Selector: Pseudo-class**

**Pseudo-element**

**We can style the specific portion. And add content using ccs**

**Ma duo kam karsakta hu specific portion hight-light karsakta hu jasy frist line ya frist selector insert karsakta hu content css ka through.**

**:: selection**

**Selector:: Pseudo-element**

**Transform**

Transform property are used to (to rotate, move scale, skew elements.

**Transform property:** Used to apply a 2D or 3D transformation to an element.

**Transform origin property:** used to apply 2D or 3D transformation to an element.

**Transform origin: 0;**

**2D transform** –can change X and Y axis.

**Transform: skew** (33deg); if we used skew “hamay asa lagta ha ke ham side sa dakh rahaha”

**Transform: scale (3)** this mean its big 3(gona) then original size

**Transform: translate**/y (44px) “then move 44px x-axis”

**Transform: translate (44px, 77px)** we set x and y at the same time.

**Transform: matrix( we set all properties like scale x ()translate so on)**

**Transform: scale x ()**

**Transform: scale y ()**

**Transform: matrix (scale x()skew y() translate x() translate Y() )**

**3D transform** –can change X and Y and z axis.

Transform: rotate (55deg/turn);

**3D transform**

Perspective: ke se be object ko ap ketene distance sa deka rahahu.

Perspective origin: matlb ha kis angle sa dakra ha hu

Transform: perspective () rotste3d (tell x-axis tell y-axis tell z-axis tell angle)

Transform: traslate3d (x-axis y-axis z-axis )

Box model

Box model is used to set the content [first content]outside[padding ]outside[border][margin]] we used margin padding border using left, right, top, bottom.

Left padding/border/margin

Right-padding/border/margin

Top padding/border/margin

Bottom padding/border/margin

We can set /margin/ padding or top, bottom, left, right

Padding=margin=23px 90px 78 px 787px

Padding=margin=top right bottom left

Margin: auto If we want to all content Centre then we want to add margin auto property.

**Note**: if we have to same padding margin to give top/bottom &left right

The we used padding=margin=x(top bottom)y(left right)=23px 23px

Box size

**Box sizing:** If we give the width the element then we increase padding then the content width doesn’t change. If we want to doesn’t change it width then we used **box size**

**Box-sizing: border-box;**

**This is a universal selector of css(\*)**

The syntax is \*{}. If we want to add something for whole page then we used universal selector

Position property

**Position: static** (default)

**Position: absolute** the element is removed from the flow and is relative position to its first non-static top bottom etc. work.

**Position: relative** if we set the element relative then we used this property (top, left, right bottom) and move normal position and will gap its normal position.

**Position: fixed** if we scroll and other some activities can perfrom then the box not move

**Position: sticky** if we want to when we scroll it one box (chep ka kar upper rahay) then we used sticky

**Visibility**

**Visibility**: **hidden** will hide the element and the space.

**Visibility**: **none** will hide the element but show empty space.

**Z-index:** one box ka upper dosara box ayaa. z-index ma jas ke value zeyada hoge vo uper aya ga .to is k leya z-index used karta ha.z-index will work only or position: relative, absolute, fixed, sticky.it does not work default value(static)

**.we** must set the position property.

**Variable custom properties**

If i add one color in our website then we used variable (red) i change one color red all the color change in our website.

**The syntax of making variable is (--name: value ;)**

**If we want to access variable then property: var(--name of variable)**

If the variable inside class/id/element are called local variable

If we want to add global variable then we used : root{make variable}

Units in css

There are two types of units

1. **Absolute (jas pa dependence nhi ho)**
2. Cm (2)mm (3) inch (4) px(**1inch=96px)** (5) pt **1inch=72pt )** (6)pc **1inch=12pt)**

**(2) relative (dependence ho)**

(1) em (2)rem(3) vh (4) vw (5)% relative to parent

**em:** **units** parent k relative font size set karta ha.

For exmple (if we give parent font size 10pxthe we used the **10 em** unit the font size multiple by parent continuer then child font size 100px)

**Note:** if we using padding and margin then em multiply karaga font size sa.

**Rem unit:** root html tag is ka font size ka relative apna ap ko resize karta ha.

It can multiply root hml font size html **{font-size:23px} <**h1>faizan h1<font-size:**4rem**> then the **h1** size 72px. And padding miltiple html root element font size

*More information about rem and em*(comprensive guide rem and em)

**Vh**: units is used to view port ka height ka itena jaga lalay

**Vw**: units is used to view port ka weihght ka itena jaga lalay

**% Relative to the parent**

**Media queries**

**what is resopnsive design ?**

Responsive is a method hota ha web developer k leya us ke website sara k sara devices ma dekha he dati ha

These are used to make our website responsive

1. setting up view port
2. use-max-width/max height
3. using css media quries
4. using rem/vh/ vw units pixel
5. padding margin used

Media quires in method hota ha jab be hamare screen resize hoge (to agr screen ke width itene hoge to ap na specfic css add karna ha)

The syntax of media queries is

@media (min-width) screen only and (max-width )

How to add css file link media queries

<link name=”stylesheet” media=”screen and (max-width =)” href=”filename/”>

**Keyrames and animation**

**Used to animate CSS property with more control we can used key frames rules to change the animation from a given style to a new style.**

If we want to add animation the first step is (**animation-name: write any name**)

The second step is (**animation –duration :)** this mean how much time the animation fir.

The third step is (**animation-iteration-count: value**

**Animation-mode: forward** (mean if we want to applied keyrame “ply sa he” then we used “forward” mode

**Animation-mode: alternate (**our animation start)

**Animation-timing-function: ease-in** (mean starting the animation slow and suddenly fast)

**Animation-timing-function: ease-out** (mean starting the animation fast and end the animation suddenly fast)

**Animation-timing-function: ease-in-out** (initial slow and finally fast)

**Animation-delay: 3s (**this mean the animation fire after **loading our** website the animation will fire 3 sec

**Animation-direction: alternate** (this mean our animation run start to end)

**Animation-direction: reverse** (this mean our animation run end to start)

**The short hand of animation syntax**

**Animation: animation-name animation duration animation-timing-function animation-delay**

Note: the animation made using keyframes

Key frame

**@keyframes** write-animation name {

We write two frames

From {height: 89px}

To {900px}

}

**@key frames** write-animation name {

We write two frames

0 %{ top, bottom. left}

20 %{}

60 %{}

These number are means if our animation completed the this event fire}

Transition

Used to change property values smoothly area a given duration.

Frist we write

**Transition-property**: the property you want to transition “all background-color ;( in this property the “all” mean all property are applied “background -color” we can set property)

**Transition-property**: width, color, height, aligns, hover

**Transition-delay: 2s;**

**Transition-duration: 3s;**

**Transition-timing-function: ease-in;**

Difference between transition and animation

1-**Css transition** needed to be triggered .Mouse hover .focus change programmatically adding and removed class values

**1-Animation** they don’t need any explicit triggering.

**Alignment**

Float:

The float CSS property **places an element on the left or right side of its container, allowing text and inline elements to wrap around it**. The element is removed from the normal flow of the page, though still remaining a part of the flow (in contrast to absolute position

Float: left/right

**The clear property is used to clear a float. It specifies what element can float beside a given element**

**Clear: right** mean (maray right ma koye element float nhi kara)

Clear: right /right/both

Text align: center/left/right/justify

If we remove link for underline the we used (text-decoration: none)

When we want to move cursor something then color change then we used hover property (class:hover{css})

Classname: visited (this property is used to when links are embedded the user can visit then the decoration change)

Classnam: active (this property is used to when we active work then the color of the property must be change)

Display property

**Display: block** means we set the padding margin

**Display: inline** means jeneta bara opject ha utuna place lalaga

**Note:** if we want to the block element can be convert inline element then we used (display: inline-block)

**Display: flex** (study)

Flex box

Flex box is one dimension layout method or laying out items in rows or column.css flex box is a better way to layout, align and distribute space among items in a container.

We applied flex we need to his parent (display: flex) we used this property.

Automatically made flex items.

**Properties o flex box (default value is row)**

**Flex-direction:** row/column/row-reverse/column-reverse

**Flex-wrap**: wrap/no wrap (default value no wrap) this property is used to when a lot of box then the screen size thin automatically the upper box is automatically come to down side.

We set the direction and wrap using this property **flex-flow: row-reverse** (direction) wrap (second)

Flex properties for parent to

**Justify-content: center the** content in horizontal direction

Vertical –center “methods”: display: table , display: table-cell , vertical align: middle.

**Justly-content: space-between** (two box ka beach ma equal space corner sa space nhi karo two box ka mid sa karo)

**Justify-content: space-evenly** (means included start and end are all equal)

**Justify-content:** **space-around** (matlb ke se be dabaa ka around dono side ma space barabar kar du ) left or right ma space barabar ayaa ge

**Align-items: center** vertical center hojayengay.

Flex-end: flex: start (default)

**Align-items: stretch:**  (**Justify-content: space-evenly) ke thara work karta ha but ya vertical(space-evenly karta ha )**

**Flex properties for flex direction**

**Order:2** (jas ko ply rakna na or bad ma rak na to is k leya oder ke values dana perta ha / higher order later its show up in the container)

**Flex-grow:3**; (jab hamara flex box ko moka mela bara hona ka tab vo bara hoja ya ga )three ka matlb 3 box le jaga la.**invalid negative number**

**Flex-shrink**: 3 it work as flex grow but working as shrinking time. Shrink mean small (jas ke value zeyad ahoga vo chota hoga ya ga)

**Flex-basis: 1200px** we change default size the we used flex-size. We control the size property/

**Note**

When flex-direction is set to row flex-basis will control width

When flex-direction is set to columns flex-basis will control width

**Flex shot hand**

**Flex: grow shrink basis**

**Align-self: flex-end (**the box go to the flex end**)**

**Align-self: flex-start (**the box go to the flex start**)**

**align-self: center(**the box go to the flex center

**Css grid**

Mean one display property hote ha jes ko used kar ka one box ko grid banata ha when are used display flex property (align items centre these are also used in grid) similar to flex but the difference is that (css grid ma two dimension grid banta ha) using css grid we make layout.

Note: if I parent **“display: grid**” the child element make grid items.

**Display: grid**

**Grid-template-columns: 100px (**make a column with a width of 100px**) 100px 400px this** mean make three column “in this 100px mean the width of column make 10opx 100px and 400px”

**Grid-columns-gap:**

**Grid-template-columns: 1fr** (pore width ha us ka one 1fr give first items) **: 4fr**(pore width ha us ka one 1fr give first items )

**Note:** it work as ratio

**Grid-template-columns: if we need 10 column we can applied “Grid-template-columns: 100fr 100fr 400fr”** this method but the short hand is

**Grid-template-columns: repeat** (12(this mean how much make a column) 1300fr “this mean make a columns with a width of 130fr”)

**Grid-gap: 55px;**

**Grid-template-row: 1**fr 3fr 5fr;

**Grid-auto-rows: 2fr (**this mean I we have a lot of rows then we set some rowsgiven **1fr** but If we want to applied other all rows **“2fr ”)** then we used Grid-auto-rows

**Grid -row-start:1; or Grid-columns 1/span3** (the property is used to row colluspan)

**Grid-columns/rows-end:1;**

**The s**hortcut of above is: grid-columns/rows:1/span3

**Grid-template-columns: repeat (auto-fit, minmax (300px 1fr))**

**Grid-template-area:** in this we can name the grid ”grid-area: name” and positioning them

**Following are the factor we applied grid.**

1. **Frist we write parent id/class under we write(Grid-template-area:**

**) and his under us write “make matrix” and every child must be write (grid-area: idwrite and every id write on parent Grid-template-area:**

**)**

**(Flex float grid)**

**Min/mix height/width-prpoprty**

Gradient

There are two types of gradient

1. Line-gradient: it work as linear

Gradient can be apply using background-image property

Background-image: linear-gradient (color, color)

**We can control gradient (to left, / right / top / bottom name’s color)**

**We also used (to right bottom color)**

**We also used (12deg, color)**

**Background-image: linear-gradient( to top right , red 55% , blue , green )**

1. Radial-gradient : it work as circle

**Background-image: radial-gradient (**circle, “tell which shape you want to make” colors)

**Background-image: radial-gradient (circle, red 44%, blue 44%)**

**Over flow**

Are used to when the content is big and the parent is small then the content can go outside the parent.

**Overflow: visible/hidden/scroll;**

**Overflow x: hidden;**

**Overflow y: scroll;**

**Overflow: auto;** means when content is big the scroll bar show otherwise not show.

Htpps//:Onlineutilitywebsite.com

Responsive video and image

{

Width:100%;

Height: auto;

}

Septicity

If one element is styled by more than one rule, which style will be applicable.

More specific rule will get more value.

**Column manage text**

Column-count: 3;

Column-gap:5px;

Column-rule-style: solid;

Colum-rule-width: 1px;

Colum-rule-color: green;

Cal() function: it is used to mathematic calcaulation.we used these aritematic operator such as (+ \* / -)

Clip path:/shape out side

Clip path values circle, ellipse, inset, playgon

Clip-path:circle(tell radius 50% at tell x-axis at tell y axis)

Clip-path:circle(50% at 44% 30%)

Clip-path:ellipse(horizental radius vertical radius X-axis y-axis)we need four things

Clip-path:inset(ma hum image ka under sa rectangle ke form ma cut kar lata ha) we need four points top right bottom left

Clip-path:polygon() we make any time of shape

Min max clamp()

Clamp(min, prefered-value max)

.