

## Cascading Style Sheets (CSS)

- ⇒ CSS stands for Cascading Style Sheets.
- ⇒ CSS describes how HTML elements are to be displayed on screen, or in other media.
- ⇒ CSS saves a lot of work. It can control the layout of multiple webpages all at one.
- ⇒ External style sheets are stored in CSS files.

Ways to insert CSS code in to an HTML website:-

- ⇒ There are 3 ways of inserting style sheets.
  - (i) External CSS
  - (ii) Internal CSS
  - (iii) Inline CSS

### (i) External CSS:-

- ⇒ With an external style sheets you can change the look of an entire website by changing just one type.

- ⇒ An each HTML page must include a reference to the external sheets inside the <link> head section.

- ⇒ An external style sheets can be written in any text editor & must be saved with a .css extension.

Ex:- <html>

<head>

<link rel="stylesheet" href="css1.css">

</head>

</html>



### Example of CSS:-

h1 {

color: green;

}

p {

background: red;

}

### (ii) Internal CSS:-

⇒ An internal style sheet is used inside the HTML document.

⇒ Internal styles are defined with the <style> inside the <head> section.

Ex: <html>

<head>

<style>

h1 {

color: red;

}

p {

background: green;

</style>

</head>

### (iii) Inline CSS:-

⇒ An inline style is used to apply a unique style for a single element.

⇒ Inline styles are defined with in the style attribute of the relevant element.

⇒ The style attribute can contain any CSS property.

ex: <body>

<h1 style="color: red;"> Heading </h1>

<p style="color: green;"> paragraph </p>

</body>

### Cascading Order:

- ⇒ 1st priority - Inline style (inside an html element)
- ⇒ 2nd priority - External or internal style (which is the last in the head section)

### HTML Class:

The HTML class attribute is used to specify on HTML element.

- ⇒ Multiple HTML elements can share the same class.
- ⇒ Syntax of class:

ex: <p class="red"> ..... </p>

- ⇒ To create a class, write a period (.) character followed by a class name.
- ⇒ Then define the CSS property with in curly braces { }.

ex: <p class="A"> ..... </p>

<p class="B"> ..... </p>

### CSS:

.A {

color: red;

}

.B {

color: green;

}



## HTML ID:

- (1) ⇒ The ID attribute specifies a unique ID for an HTML element.
- ⇒ The value of ID must be unique within HTML document.

## Syntax for ID:

```

<head>
<style>
    #no.1 {
        color: red;
    }
</style>
</head>
<body>
    <h1 id="no.1">Heading </h1>
</body>

```

## \* CSS Color:

- ⇒ CSS colors are specified using predefined colors name RGB, HEX, HSL, RGBA, HSLA.

\* RGB: An RGB color value represents Red, Green, & Blue light sources.

### Syntax:

```

<style>

```

```

    .color {

```

```

        color: rgb( red value, green value, blue )
    }

```

```

</style>

```

↓  
Parameter







(same as decimal)

⇒ The three digit here color represent the Red, Green & Blue. If both the value are same for each component.

Syntax:

<head>

<style>

.color {

color: #FFddee;

}

</style>

</head>

HSL:

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⇒ In CSS a color can be specified using <sup>hue</sup> ~~hue~~ saturation & lightness.

Syntax:

hsl (hue, saturation, lightness);

⇒ hue value is varies bet? 0-360°

⇒ lightness & the saturation is in the percentage.

<head>

<style>

.color {

color: hsl(250, 50%, 50%);

</style>

</head>



## HSLA:

⇒ HSLA color values are an extension of HSL color value with an alpha channel which specifies the opacity of the color.

Syntax:

hsl(hue, saturation, lightness, alpha);

Ex:

<head>

<style>

.color {

color: hsla(250, 50%, 50%, 1);

}

</style>

</head>

⇒ The alpha parameter is a number bet<sup>n</sup> 0-1.  
Zero for fully transparent 1 for full color value.

## CSS background:

⇒ The CSS background properties are used to add background effects for elements.

\* background-color.

\* background-image.

\* background-repeat.

\* background-attachment.

\* background-position.

\* background (shorthand property)

### \* CSS background-color :

=> The background-color property specifies the background color of an element.

Syntax:

<head>

<style>

body {

background-color: rgb(r, g, b);

}

</style>

</head>

Ex: <style>

body {

background-color: rgb(200, 150, 50);

}

</style>

### \* CSS background-image :

=> The background-image property specifies an image to use as the background of an element.

Ex:

<head>

<style>

body { background-image: url(pic.jpg); }

</style>

</head>

### \* CSS background-repeat :

The background-image property repeats an image both horizontally & vertically.

=> We can use the background properties on repeating the image.

=> repeat-x: repeat horizontally

repeat-y: repeat vertically.



no-repeat : no-repeat image.

Ex:

```
<style>
body { background-repeat: no-repeat;
      background-repeat: repeat-x;
      background-repeat: repeat-y; }
</style>
```

\* CSS background-position :

The background position properties is used to specify the position of an background-image.

Ex:

```
<style>
background-position: top center;
</style>
```

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\* CSS-background-attachment :

➔ The background-attachment property specifies whether the background image should scroll or to be fixed.

Ex:

```
<style>
body { background-attachment: fixed; }
</style>
```

CSS background (short hand property) :

➔ Ex: <style>

```
body { background: red url("pic2.jpg") no-repeat
top center fixed; }
</style>
```



### \* CSS background-size:

- ⇒ The background-size property specifies the size of the background image.
- ⇒ There are many options like "auto", "cover", "contain", & we can also set height & width of background image.

```

ex: <style>
    body {
        background-size: cover;
    }
</style>
    
```

DI: 01.08.23

### CSS Border:

- ⇒ The CSS border property allows you to specify the style, color, width, of an element's border.

### CSS Border Style:

- ⇒ Border-style property specifies what kind of border to display.

The following values are allowed: ~~Dotted, Dashed~~

~~Solid, Groove, Ridge~~

dotted - .....

dash - - - - -

solid - \_\_\_\_\_

groove - \_\_\_\_\_

ridge - \_\_\_\_\_

inset - \_\_\_\_\_

outset - \_\_\_\_\_

none - defines no border.

hidden - defines a hidden border.

ex: border-style: dashed;



### CSS border-width:

→ CSS border-width property specifies the width of four borders.

→ The width can be set as a specific size in px, pt, cm, pm etc... we can also use pre defined value - thin, medium, thick.

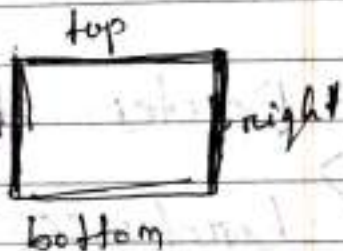
Ex-1:

border-width: 50px;

Ex-2:

border-width: 5px 10px 15px 20px;

↓ ↓ ↓ ↓  
top right bottom left



Ex-3:

border-width: 20px 10px;

↓ ↓  
top bottom left right



### CSS border-color:

→ The border-color properties is used to set the color of four borders.

Ex:

border-color: red;

border-color: red green black blue;

### Side wise border-style:

(1) border-style: solid;



(1)



(2) border-style: double solid;  
                     ↓                    ↓  
                     top bottom      left right



(2)

(3) border-style: dotted dashed double solid;



Border shorthand property:

⇒ border: 5px solid black;  
                     ↓                    ↓  
                     width          style          color

Border-radius:

⇒ Border-radius property is used to ~~add~~ add rounded ~~property~~ ~~is~~ to an element  
 ex:

border-radius: 5px;



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\* CSS Margin:

margins are used to create space around element outside of any defined border.

Ex: margin: 50px;

                    ↓  
                     All four sides margin



## \* Margin individual side:-

- margin-top: 50px;
- margin-right: 20px;
- margin-bottom: 30px;
- margin-left: 40px;

## \* Margin shorthand property:-

(1) margin: 50px 20px 30px 40px;  
                   ↓                  ↓                  ↓                  ↓  
                   top                  right                  bottom                  left

(2) margin: 10px 50px 20px;  
                   ↓                  ↓                  ↓  
                   top                  left/right                  bottom

(3) margin: 50px 100px;  
                   ↓                  ↓  
                   top & bottom                  left & right

(4) margin: 50px;  
                   ↓  
                   all the four sides

## \* CSS padding:-

⇒ Padding is used to create space around an element inside of any defined border.

Ex:- 1

padding: 2px 4px 5px 3px;

                  ↓                  ↓                  ↓                  ↓  
                   top                  right                  bottom                  left

Ex:- 2: padding: 3px 6px 8px;

                  ↓                  ↓                  ↓  
                   top                  left/right                  bottom

ex:- 3: padding: 50px 100px;

ex:- 4: padding: 50px;



### CSS Margin Collapse:-

Top & bottom margins of elements are sometimes collapse in to a single margin, that is equal to largest of two margins.

### CSS Box model:-

The CSS box model is essentially a box that wraps around every HTML element. It consist of margin, border, padding, & the actual content.



### Explanation of different parts:-

Content:- The content of the box, where text & images appear.

Padding:- Clears an area around the content. The padding is transparent.

Border:- A border that goes around the padding & content.

Margin:- Clears an area outside the border. The margin is transparent.



\* Outline:

⇒ An outline is a line drawn outside the elements border.

Property of CSS outline:

- outline-style
- outline-color
- outline-width
- outline-offset
- outline (shorthand)

\* Outline-offset:

⇒ The outline-offset property adds space bet<sup>n</sup> an outline & the border of an element.

⇒ The space bet<sup>n</sup> an element & its outline is transparent.

\* CSS Text formatting:

• Text-color:

⇒ The color property is used to set the color of the text.

Ex: Color: red;

• CSS Text-align:

⇒ The Text-align property is used to set the horizontal alignment of a text.

⇒ A text can be left or right align, or center or justified.

Ex: <style>

PF

Text-align: left;

Text-align: right;

Text-align: center;

3 Text-align: justify;



## Text Decoration:

⇒ There are many properties in text decoration.

\* text-decoration-line;

\* text-decoration-color;

\* text-decoration-style;

\* text-decoration-thickness;

\* text-decoration (shorthand property);

⇒ The text-decoration-line property is used to add a decoration line to text; (overline, line-through, underline).

⇒ For ex: text-decoration-line: underline;

⇒ We can also combined more than one value line overline, underline & line-through.

⇒ The text-decoration

⇒ for example: text-decoration-line: overline

underline line-through;

⇒ The text-decoration-color property is used to set the color of the decoration line.

⇒ for example: text-decoration-color: red;

⇒ The text-decoration-style property is used to set the style of the decoration line (solid, doublet, dotted, dashed, wavy).

⇒ for ex: text-decoration-style: wavy;

⇒ The text-decoration-thickness property is used to set the thickness of the decoration line.



Ex: `text-decoration-thickness: 5px;`  
Ex: `text-decoration: shorthand property;`  
`text-decoration: underline red wavy 5px;`

→ The `(text-decoration: none;)` property is used to remove the underline from links.

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### Text-Transformation<sup>+</sup>

→ The `text-transform` property is used to the case of the text.

- \* `text-transform: uppercase;`
- \* `text-transform: lowercase;`
- \* `text-transform: capitalize;`

### \* Text Spacing<sup>+</sup>

#### • Text-indent<sup>+</sup>

→ `Text-indent` property is used to specify the indentation of the first line of a paragraph.

Ex: `Text-indent: 50px;`

#### • Letter-spacing<sup>+</sup>

→ It is used to specify the space bet<sup>n</sup> the letter of a text.

Ex: `Letter-spacing: 10px;`

#### \* Line-Height<sup>+</sup>

it is used to specify the space bet<sup>n</sup> lines.

Ex: `Line-height: 1.5;`



### • Word-spacing:

It is used to specify the space bet<sup>n</sup> words in a text.

Ex: word-spacing: 10px;

### • White-space:

It is used to, how white space inside an element is handle.

Ex: white-space: wrap;

white-space: nowrap;

### • Text-shadow:

The text-shadow property is used to specify the shadow of the text.

Ex: text-shadow: 2px 4px black;

↓ axis    ↓ axis    ↓ color

2px 4px 4px black;

↓ blur radius

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### • CSS-font:

→ We can use font-family property to specify the style of the text.

Ex: font-family: "calibri";

### • Font-style:

The font-style property is used to specify the italic style. (normal, oblique, italic).

Ex: font-style: "italic";



## Foot-weight: +

font-weight: 100;

cx:font-weight: 100;

→ It can be hold, normal, haloten, lighter, & the scale of 100-900.

font size 1

font-size -  
The font-size property is used to specify the size of the font.

Ca: font-size: 50px;

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CBS-List

⇒ There are two type of list: Linked list

⇒ CSS list property allow you to style the list

### Dist - Style - Types :

⇒ The list-style-type property specifies the style of list ~~mark~~ item marker. (square, circle,

ca: 003

disclosure - closed/open, decimal

list-style-type: square;

Pa-2

of  $\mathbb{F}$

list + style-type: upper-roman / lower-roman

(:cuppen-alpha / Louren-alpha)



Image as list icon:  
→  

```
ul {  
  list-style-type: none; image: url("love.png");  
}
```

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### \* CSS-Table:

#### Table-Border:

→ To specify the table-border in CSS we use border property.

ex: table {  
 border: 2px;  
}

#### \* Collapse Table-Border:

→ We can use the border-collapse property to convert the double borders into a single border.

ex: table {  
 border-collapse: collapse;  
}

#### \* Table-Height & Width:

We can also set the height & width of the table using height & width property.

ex: table {  
 height: 100%;  
 width: 50%;  
}



### \* Hoverable Table:

⇒ Use the `hover` selector on `<td>` tag to highlight table row on mouse hover.

Ex: `tr` {

`background: light cyan;`

}

`tr: hover` {

`color: cyan;`

}

### \* Striped Table:

⇒ We can use the `nth-child()` selector to add a background color to all even or odd table rows.

Ex: `tr` {

`background: yellow;`

}

`tr: nth-child(even)` {

`background: red;`

}

⇒ `&lt;B>` ⇒ `<B>`.

Input

Output