

CSS (Cascading style sheet)

→ By using the CSS we can apply styles to the HTML controls

→ CSS was developed by W3C. First version of CSS is released in 1996 i.e., CSS1.

Types of CSS styles:

- 1) inline style sheet
- 2) internal style sheet
- 3) external style sheet

inline style sheet

→ The CSS styles directly applied to HTML elements by using style attribute

e.g.: `<h1 style="color: white; background-color: red; text-align: right>Hello </h1>`

2) Internal style sheet

- It contains set of CSS styles applied to the part of the HTML document.
- By using `<style>` tag we provide CSS styles.

eg: `css`

`h1 {`

`color: aqua;`

`font-size: 33px;`

`text-align: center;`

`}`

`p {`

`color: red;`

`text-align: right;`

`}`

`<style>`

`<h1> welcome </h1>`

`<p> hello hello hello </p>`

3) External style sheet

→ Create the CSS file external to the HTML document. save the file with the extension ".css"

→ Link up the CSS file to the HTML document by using the `<link>` tag.

`<link>` tag attributes:

1) `rel = "stylesheet"` / `icon`

2) `href = "address of CSS file"`

ex: `<head>`

`<link rel="stylesheet" href="master.css">`

`</head>`

Syntax:

HTML tag

`property name : value ;`

`3`

Element specific attributes

→ These attributes are CSS element selectors

1) `attribute selector`:

types of CSS selectors

- 1) element selector
- 2) class selector:
- 3) id selector
- 4) universal selector
- 5) nth selector

6) attr selector

- 1) id selector:

→ Always id starts with "#" symbol
→ it uses id attribute

→ inline style has the highest priority composed by internal & external style.

→ internal & external style has the same priority but it depends on where you are writing either 1st or 2nd.
ex: `<link rel="stylesheet" href="posters.css">`

`<style>`

`h1 {`

`background-color: red;`

`h1 < h1`

`welcome`

`red color.`

`}`

`</style>`

`<head>`

→ the green color will be

replaced by red color.

(covered).

Ex: `<style>`

`#polar2 {`

`background-color: red;`

`color: green;`

`}`

`.class {`

`text-align: center;`

`color: blue;`

`}`

`</style>`

Ex:

`h1.polar2 {`

`color: green;`

`}`

`<h1 class="polar2">Hello <h1>`

Ex: `<h1 class="polar1 polar2">welcome <h1>`

grouping the selector

→ `p, h1, h2, h3`

`background-color: red;`

`color: yellow;`

3

text property

- 1) `color: colorname`
- 2) `text-align: left/right/center/justify`
- 3) `text-decoration: line-through/underline`
- 4) `text-transform: lowercase/uppercase/capitalized`
- 5) `text-indent: 10px`
- 6) `letter-spacing:`
- 7) `line-height:`
- 8) `direction: rtl/ltr`
- 9) `word-spacing`
- 10) `text-shadow: width height color`

font properties

- 1) `font-family: serif`
- 2) `font-size:`
- 3) `font-style: normal/italic/bold/oblique`
- 4) `font-weight: normal/bold`
- 5) `font-variant: small-caps`

background prop

border properties

- 1) `border-width: 5px` (all sides will be same)
- 2) `border-width: top right bottom left` (`5px 2px 3px 4px`)
- 3) `border-style: solid/dashed/dotted/double/groove`
- 4) `border-color: red blue green aqua`

background properties

- 1) `background-color:`
- 2) `background-image: url()`
- 3) `background-repeat: repeat-x/repeat-y/no-repeat`
- 4) `background-attachment: fixed/scroll`
- 5) `background-position: right-top/right-bottom/left-top/left-bottom`

css styles

<body>

```
background-image: url(hello.png);
background-repeat: no-repeat;
background-position: 30px 100px;
background-attachment: scroll;
```

}

<style>

```
<p>Hello---</p>
```

margin properties

- 1) margin-top:
- 2) margin-bottom:
- 3) margin-right:
- 4) margin-left:

link properties

a:link (unvisited link)
 a:hover (when mouse over on the link)
 a:active (when click on the link)
 a:visited (after mouse click)

gestyles

.login p

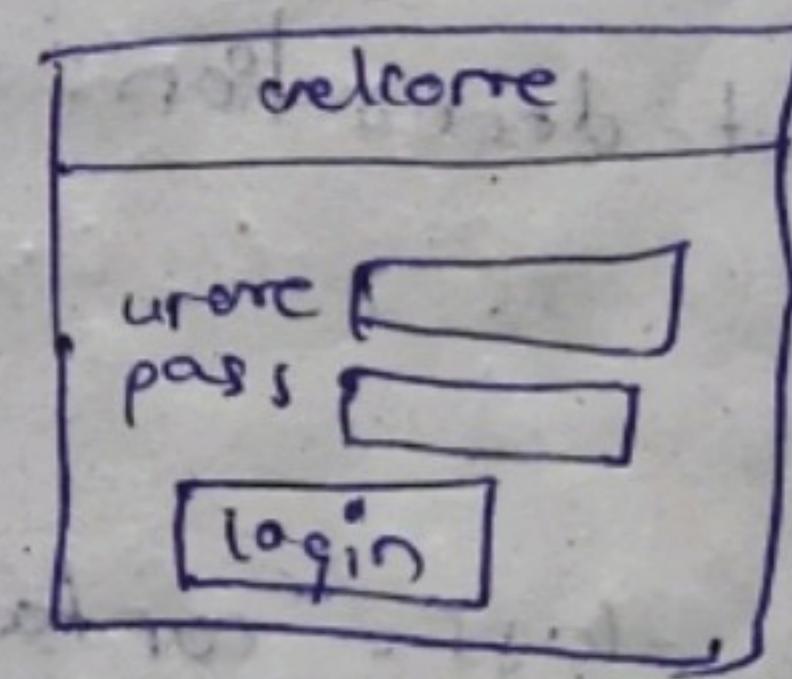
```
padding: 10px;
border: 5px solid red;
float: left;
```

.head p

```
background-color: red;
color: white;
text-align: center;
padding: 5px;
```

.sub p

```
background-color: red;
color: white;
font-weight: bold;
```



```
2) <style>
    body {
        height: 100y;
    }
    div.container {
        border: 5px solid black;
    }
    header, footer {
        background-color: black;
        color: white;
        text-align: center;
        padding: 10em;
    }
    nav {
        margin: 0px;
        padding: 2em;
        float: left;
        max-width: 10px;
    }
    nav ul, a {
        list-style-type: none;
        padding: 1em;
    }
    nav ul, a {
        text-decoration: none;
    }
<style/>
<body>
    <div class="container"><div>
        <header> is a educational <header/>
        <footer> copyright by iral 2024 <footer/>
        <nav>
            <ul>
                <li><a href="#">CSE <a/> <li/>
                <li><a href="#">EEE <a/> <li/>
                <li><a href="#">ECE <a/> <li/>
            </ul>
        </nav>
    </div>
</body>
```

<article>

<h1> CSS </h1>
<p> Hello Hi! </p>

<article/>

<body/>

universal selector (*)

→ div^0

{
text-align: center;
background-color: red;

}

<p> welcome </p>
<h1> hello </h1>

child combinator selector (>)

→ $\text{div} > \text{p}$

{
background-color: red;
color: yellow;
border: 2px solid grey;

<div>

<p> hello me </p>

</div>

next sibling combinator selector (+)

$\text{div} + \text{p}$

{
background-color: red;
border: 2px solid grey;

}

<div>

color codes

- 1) color name by using color keyword/attribute
2) Hexadecimal value : it is specified with #RRGGBB
→ values ranges from : $\frac{00}{\text{min}}$ to $\frac{FF}{\text{max}}$ { $\#000000 \rightarrow$ black } $\#FFFFFF \rightarrow$ white)
3) `rgb()`
values ranges from : 0 to 255
→ we can specify integer values (we can write in percentage also)
→ for integer values → ranges from : 0 to 255
→ for percentage values → ranges from 0% to 100%.
Ex : `rgb(255,0,0)` `rgb(10%,20%,100%)`
- 4) `rgba()`
→ a for alpha means transparency
value ranges from : 0 to 1

hsl() (hue saturation lightness)

- 1) hue : it is the degree of color
→ starts from 0° to 360°
→ 0° is "red", 120° is "green", 240° is "blue"
2) saturation : it is the percentage of value.
→ It represents "shadow" of color
→ starts from 0% to 100%
→ 0% → shade of grey, 100% → full color (black)
3) lightness : it is also known as percentage
: 0% → black, 100% → white

Ex : `hsl(100,10%,0%)`

hsla()

- a for alpha means transparency
values ranges from : 0 to 1

Different ways of representing units in CSS

1) Absolute Units:

1 cm

2) mm

3) in → 1 in = 96px = 2.54 cm

4) px → 1 px = 1/96 in

5) pt → 1 pt = 1/72 in

6) pc → 1 pc = 12pt

2) Relative units:

1) em

2) ex

3) percentage

@keyframes

→ By using this one we can do animations in CSS
properties:

animation-duration

animation-name

animation-direction

animation-iteration-count

animation-delay

start time: animation;

ex:- <style>

div {

width: 100px;

height: 100px;

background-color: red;

animation-name: example;

animation-duration: 4s;

animation: example 4s infinite;

}

@keyframes example

from (background-color: blue;)

to (background-color: red;)

0% (background-color: red;)

25% (background-color: yellow;)

50% (background-color: green;)

100% (background-color: gray;)