

# CSS - Cascading Style Sheets

- CSS describes how HTML elements are to be displayed on screen or in other media.
- It can control layout of multiple web pages all at once.
- CSS is used to define style for your web page, including design, layout & variations in display for different devices & screen size.

## CSS Syntax

- CSS Rule Set consists of a selector & a declaration block.

Selector

```
{  
    property : value;  
    property : value;  
    property : value;  
    :  
    :  
}
```

```
h1  
{  
    color : blue;  
    padding : 10px;  
}
```

# CSS Selectors

- CSS Selectors are used to find or select the HTML elements you want to style.

## 1) Element Selector

Element Selector Selects the HTML element based on element name.

ex: P

```
2  
text-align: center  
color: red;
```

}

## 2) Id Selector

The id Selector uses the id attribute of an HTML elements to select a specific element.

The id of an element is unique with a page, so id Selector is used to select one unique element.

To select an element with a specific id, write a hash (#) character, followed by the id of the element.

index.html

```
<p> This is Abhishek </p>
<p id="para"> welcome to web class </p>
```

style.css

```
#para { text-align: center;
         color: red }
```

}

Note: An id name Cannot Start with number.

### 3) class Selector

- The class Selector Selects HTML elements with a specific attribute
- To Select elements with a Specific class, write a period(.) character, followed by class Name.

index.html

```
<h1 class="left"> Blue & aligned-left </h1>
<p class="left"> Blue & aligned-left </p>
```

style.css

```
.left {
    text-align: left;
    color: blue; }
```

}

- you can also specify that only specific HTML elements should be affected by class.

style.css

p, center

{  
text-align: left;  
color: yellow;

}

- HTML elements can also refer to more than one class

index.html

```
<html>
  <head>
    <title>My First Web Page</title>
  </head>
  <body>
    <h1 class="center">Heading 1</h1>
    <p class="center">paragraph 1</p>
    <p class="center large">
      paragraph 2
    </p>
  </body>
</html>
```

style.css

p, center

{  
text-align: center;  
color: red;

}

p, large

{  
font-size: 20px;

}

#### 4) Universal Selector.

- The Universal Selector (\*)  
Selects all the HTML Selectors  
on the page.

```
*  
margin: 0;  
padding: 0;  
}
```

#### 5) Grouping Selector

- grouping selector Selects all the  
HTML elements with same  
style definitions.

style.css

```
h1  
{  
text-align: center;  
color: red;  
}  
  
h2  
{  
text-align: center;  
color: red;  
}  
  
p  
{  
text-align: center;  
color: red;  
}
```

Grouping  
Selectors

h1, h2, p  
→ {  
text-align: center;  
color: red;  
}

## How to Add CSS

Three ways to insert CSS

- External CSS
- Internal CSS
- Inline CSS

### External CSS

- Each HTML page must include a reference to the external style sheet file inside the `<link>` element, inside head section.

index.html

`<html>`

`<head>`

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

`</head>`

`<body>`

`<h1> Heading </h1>`

`<p> para </p>`

`</body>`

`</html>`

## style.css

```
body  
{  
background-color: hotpink;  
}  
h1, p
```

```
{  
text-align: center;  
color: grey;  
}
```

## Internal CSS

- An internal style sheet may be used if one single HTML page has a unique style.
- internal style is defined inside `<style>` element, inside head section

## index.html

```
<html>
```

```
<head>
```

```
<style>
```

```
body {
```

```
background-color: gray;  
}
```

```
h1 {
```

```
color: gold;  
text-align: center;
```

```
}
```

```
</style>
```

```
</head>
```

```
<body>
  <h1> Heading! </h1>
  <p> para! </p>
</body>
</html>
```

## Inline CSS

- inline style may be used to apply a unique style for a single element.
- to use inline style, add the style attribute to the relevant element.
- style attribute can contain CSS property.

## index.html

```
<body>
  <h1 style="color:blue; text-align:right">
    Heading!
  </h1>
  <p style="color:red">
    Paragraph!
  </p>
</body>
```

## CSS Comments

/\* Comment \*/

## CSS Backgrounds

- Background-color  
background-color property specifies the background color of an element

ex:

```
body  
{  
    background-color: skyblue;  
}
```

## Opacity / Transparency

- Opacity property specifies the opacity/transparency of an element. It can take values from 0.0 to 1.0
- The lower value, the more transparent.

ex:

```
div  
{  
    background-color: blue;  
    opacity: 0.3;  
}
```

## • Background-image

Background-image property  
Specifies an image to  
use as the background of an  
element

by default, the image is repeated  
so it covers the entire  
element.

ex:

body  
{

background-image: url('image.jpg');

## • Background-repeat

By default background-image  
property repeats an image  
both horizontally & vertically.  
If the image is repeated only  
horizontally

use  
background-repeat: repeat-x;

```
body  
{  
background-image: url("image.png");  
background-repeat: repeat-x;  
}
```

to repeat an image vertically  
Set background-repeat: repeat-y;

Showing the background image only  
once is also specified by  
background-repeat property.

```
body  
{  
background-image: url("image.png");  
background-repeat: no-repeat;  
}
```

Background-position  
Property  
background-position property is used  
to specify the position of background  
image.

```
body  
{  
background-image: url("img.png");  
background-repeat: no-repeat;  
background-attachment: fixed;  
background-position: center;  
}
```

available Values

- top, bottom, center, left, Right.

- Background-attachment

this property specifies whether the background image should scroll or be fixed.

body

```
background-image: url("image.png");  
background-repeat: no-repeat;  
background-position: right top;  
background-attachment: fixed;
```

y

## CSS Borders

- border properties allows us to specify the style, width, & color of an element's border.
- border-style property specifies what kind of border to display.

### available style

dotted	inset
dashed	outset
solid	none
double	hidden
ridge	

- border-style property can have one to 4 values (for top, right, bottom & left border)

style.css

p.border

```
?  
border-style: dotted;  
y
```

p.border

```
?  
border-style: dotted solid dashed  
double;  
y
```

## • Border width

border-width property specifies the width of 4 borders.  
Can also use predefined width i.e., thin, medium, thick.

style.css

P.border

{  
border-style : solid;  
border-width : 2px;

}  
of

P.border

{  
border-style : solid;  
border-width : medium;  
}

## • Specific side widths

P.border

{  
border-style : solid;  
border-width : 5px 20px;  
}

5px : top & bottom

20px : sides

P.border

border-style: solid;  
border-width: 5px 10px 15px 4px;

top → 5px

bottom-right → 10px

bottom → 15px

left → 4px

.border color

border-color property is used to

provide color for borders

style.urs

P.border

border-style: solid;

border-color: gold;

Y

P.border

border-style: solid;

border-color: red blue green yellow;

Y

- Border individual sides

P

border-top-style: dotted;

border-right-style: solid;

border-bottom-style: dotted;

border-left-style: solid;

S

or

P

border-style: dotted solid;

- border-style: dotted dash solid double;

Top → dotted

right → dash

bottom → solid

left → double

- border-style: dotted solid double;

Top → dotted

right & left → solid

bottom → double

- border-style: dotted solid;

top & bottom → dotted

left & right → solid

- border-style: dotted  
all 4 sides.

## border shorthand

P

2 border: 1px solid black;

3

P

3 border-left: 1px solid red;  
background-color: black;

4

## Rounded borders

~~~~~  
border-radius property is used to add rounded borders to an element

P

border: 2px solid red;

border-radius: 5px;

## CSS Margins

- margin property is used to create space around elements, outside of any defined borders.

margin-top

margin-right

margin-bottom

margin-left

- margin-right: 10px;

P

{ margin-top: 40px;

margin-bottom: 100px;

margin-right: 150px;

margin-left: 80px;

y

margin shorthand same as border shorthand.

## The auto Value

you can set the margin property to auto to horizontally center the elements within its container.

dw

```
width: 300px;  
margin: auto;  
border: 1px solid black;
```

3

## CSS Padding

padding properties are used to generate space around an element's content, inside of any defined borders

### padding - Individual Sides

padding-top

padding-right

padding-bottom

padding-left

```
div { padding-top: 50px; }  
padding-top: 50px;  
padding-right: 30px;  
padding-bottom: 50px;  
padding-left: 80px;
```

padding shorthand is same as margin shorthand.

## CSS Outline

An outline is a line that is drawn around elements, outside the borders, to make the element "stand out".

Outline has following properties

outline-style

outline-color

outline-width

outline-offset

outline-style  
outline-color  
outline-width  
outline-offset

Outline-style property specifies the style of the outline.

P. Outline

{

outline-style: solid;

{ border-style: solid; }

outline-width property specifies the width of outline.

P. Outline

{

outline-style: solid;

outline-width: thin;

{

outline-color property is used to specify the color of the outline.

P. Outline

{

outline-style: solid;

outline-width: medium;

outline-color: red;

{

Outline shorthand is same as border shorthand.

### Outline offset :

The outline-offset adds space b/w an outline & the edge/border of your element.

P

2

margin: 30px;

border: 1px solid black;

outline: 1px solid red;

outline-offset: 15px

Y

## CSS Text

②

- Text color is used to set the color property of text.

```
body  
{  
color : red;  
}
```

- Text color & background color

```
body  
{  
background-color : gold;  
color : white;  
}
```

- Text-align

text-align property is used to set the horizontal alignment of a text

text-align can be

left

right

center

justify

h1

{

text-align: center;

y

vertical-align

this property sets the vertical alignment of an element.

→ block-level & block-level

→ block & block-level

→ block & block-level

→ block & block-level

## Text-Decoration

text-decoration property is used to set or remove decorations from text.

### Values available

underline

overline

line-through

none

hi

2

text-decoration : overline, line-through;

3

## Text-transformation

This property is used to specify uppercase and lowercase letters in text.

### values available

capitalize

uppercase

lowercase

none

initial

## Text-Spacing

text-indent property is used to specify the indentation of first line of text.

P

?

text-indent : 50px;

y

letter-spacing property is used to specify the space b/w the characters in a text.

h1

letter-spacing : 3px;

h2

letter-spacing : -3px;

y

## line-height

This property is used to specify the space b/w lines.

P

```
? line-height : 0.8 ;
```

Y

P, big

```
? line-height : 1.8 ;
```

Y

## word-spacing

word-spacing property is used to specify the space b/w words in a text.

h1

```
? word-spacing : 10px ;
```

Y

h2

```
? word-spacing : -5px
```

Y

## Text-shadow

text-shadow property adds shadow to text.

h1

{  
text-shadow: 2px 2px;

}

horizontal shadow & Vertical shadow

h1

{  
text-shadow: 2px 2px red;

}

h1

{  
text-shadow: 2px 2px 5px red;

}

## CSS Fonts

font-family

font-style

↳ normal

↳ italic

↳ oblique

P

2 font-style : italic;

Y

font-weight

font-weight weight

P

2 font-weight : bold;

Y

bold

bolder

lighter

val from 100 to 900

## font-variant

This property specifies whether or not a text should be displayed in small-caps font

P

{  
font-variant: normal

Y

P

{  
font-variant: small-caps

## Font-size

This property is used to set the size of text

h1

{  
font-size: 40px

Y

## Google fonts