

INTRODUCTION TO CSS:

- A Style sheet is a set of Stylistic rules that expresses the Presentation and Layout of Structured documents (Web Pages).
- Using CSS we can determine the style and layout of the web page.
- CSS is a style sheet language used to describe the presentation semantics of a document written in Markup Language.
- They allow us to specify rules for how the content of elements within your document appears.
- With CSS, all formatting could be removed from the HTML document and stored in a separate CSS file.

• Advantages of CSS:

1. Improves the formatting capability of a HTML page
2. Reduced Document size
3. Reduced Complexity and repetition – can reuse the same style sheet with many different HTML documents.
4. Saves time
5. A style sheet can import and use styles from other style sheets.

CSS RULES:

- CSS consists of set of rules that determines how the content of elements within your document should be formatted.

• Syntax:

Selector { property1:value ; property2:value; }

- CSS rule is made up of 2 parts:

1. Selector
2. Declaration

• Selector :

Element/ set of elements to which declaration must be applied to

- **Declaration:**

(i). Property: CSS Property that is to be applied

(ii). Value: Value of CSS property

- **Example:**

```
h1
{
font-family : arial;
color : blue;
text-align : center;
}
```

- **Grouping of Selectors:** Separate selector with a Comma

```
h1, h2, h3
{
color : blue;
font-family : calibri;
text-align : center;
}
```

‘CLASS’ SELECTOR / STYLESHEET CLASS:-

- ‘Class’ selector allows us to define multiple styles for the same type of HTML element.

- **Syntax:**

```
selector.classname
{
Property1 : value1; property2 : value;
}
```

- To define a style that can be used by multiple HTML elements remove tag name/selector.

- **Syntax:**

```
.classname  
  
{  
  
Property1 : value1; property2 : value;  
  
}
```

THE 'id' SELECTOR:

- The #id selector styles the element with the specified id

- **Syntax:**

```
#id  
  
{  
  
Property1 : value1; property2 : value;  
  
}
```

EXAMPLE:

```
<html>  
  
  <head>  
  
    <style type="text/css">  
  
      p.center  
  
        { text-align:center; }  
  
      p.right  
  
        { text-align:right; }  
  
      h2  
  
        { text-align:center; color:orange; font-family:calibri; }  
  
      .cl1
```

```

        { color:green; }

        #id1

        { color:blue; background-color:orange; }

    </style>

</head>

<body>

    <p class="center">This paragraph is styled by class 'center'</p>

    <p class="right">This paragraph is styled by class'right'</p>

    <p class="cl1">This paragraph is styled by class 'cl1'</p>

    <p id="id1">This paragraph is selected by ID selector</p>

    <h1 class="cl1">This Heading is styled by class 'cl1'</h1>

</body>

</html>

```

TYPES OF CSS:

- When a browser reads a style sheet, it will format the HTML document according to the information in the style sheet.
- There are three ways of inserting a style sheet:

1. Inline style sheet
2. Internal/Embedded style sheet
3. External style sheet

1. INLINE STYLE SHEET:

- Inline styles are placed directly inside a specific HTML element in the code.
- The style is applied at the occurrence of the HTML element by using “style” attribute in the relevant tag.
- The style attribute can contain any CSS Properties
- Inline styles cannot be reused at all

- **Example:**

```
<html>

  <body>

    <h1>This is Normal Text</h1>

    <p style="color:red;font-size:30pt;text-align:center">This Text is Styled</p>

  </body>

</html>
```

2. INTERNAL STYLE SHEET:

- An internal style sheet may be used if one single page has a unique style.
- Internal styles are defined within the <style> element, inside the <head> section of an HTML page.
- All the desired selectors along with the properties and values are included in the header section between <style> and </style> tags.

- **Example:**

```
<html>

  <head>

    <style>

      body {

        background-color:pink;

      }

      h1 {

        color: maroon;

        font-family: verdana;

      }

    </style>

  </head>
```

```
<body>

    <h1>This is a heading</h1>

    <p>This is a paragraph.</p>

</body>

</html>
```

3. EXTERNAL STYLE SHEET:

- External Style Sheets are useful when we need to apply particular style to more than one web page.
- The central idea in this type of style sheet is that the desired style is stored in an external .css file.
- The name of the external .css file has to be mentioned on our web pages. Then the styles defined in the .css file will be applied to all those web pages.
- <link> tag is used to link the external style sheet to a web page.

- **Example:**

Mystyle.css:

```
p.left
{
    text-align:left;

    color:red;

    text-decoration:underline;

    font-family:tahoma;

    font-size:20pt;
}

p.center
{

    color:green;

    text-align:center;
```

```
text-decoration:underline;

font-family:calibri;

font-size:30pt;

}
```

Ext.html:

```
<html>

  <head>

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

  </head>

  <body>

    <p class="left">This paragraph is styled by class 'left'</h1>

    <p class="center">This paragraph is styled by class 'center'</p>

  </body>

</html>
```

CSS PROPERTIES:

CSS BACKGROUND PROPERTIES:

Property Name	Values
background-attachment	fixed, scroll
background-color	rgb(x,x,x), #xxxxxx, colorname
background-image	url('url of image')
background-position	left top, left center, left bottom, center top, center bottom, center center, right top, right center, right bottom

Example:

```
<html>

  <head>

    <style type="text/css">

      h1

      {

        background-image:url('2.gif');

        background-attachment:fixed;

        background-repeat:no-repeat;

      }

      body

      {

        background-position:center top;

        background-image:url('bunny giving flower.gif');

        background-repeat:no-repeat;

        background-attachment:fixed;

        background-color:green;

      }

    </style>

  </head>

  <body>

    <h1>This element is Styled</h1>

  </body>

</html>
```


CSS TEXT PROPERTIES:

Property Name	Values
color	Color name
direction	ltr, rtl
text-align	left, right, center, justify
text-decoration	underline, overline, line-through, blink
text-transform	none, uppercase, lowercase, capitalize
text-indent	length, %
vertical-align	length, %, top, middle, bottom, sup, super
letter-spacing	normal, length (can be negative)
word-spacing	normal, length

CSS FONT PROPERTIES:

Property Name	Values
font-family	Arial, Times New Roman, etc.
font-size	small, smaller, medium, large, larger, length, %
font-style	normal, italic
font-variant	normal, small-caps
font-weight	normal, bold, bolder, 100–900
font-stretch	normal, wider, narrower

Example:**TextFont.css:**

```
p.right
{
color:red;

font-size:large;

text-transform:capitalize;

text-align:right;

font-weight:200;

letter-spacing:-3;

word-spacing:5;

}

p.center
{

color:blue;

text-align:center;

text-decoration:underline;

text-tranform:uppercase;

font-style:italic;

font-size:30;

}

.left
{

color:green;

text-indent:20;
```

```
text-decoration:underline;

text-transform:lowercase;

font-family:tahoma;

font-size:small;

font-style:italic;

}

#id1

{

color:purple;

font-weight:900;

font-family:verdana;

text-decoration:line-through;

text-align:right;

font-variant:small-caps;

font-size:20;

}
```

TextFont.html:

```
<html>

    <head>

        <link rel="stylesheet" type="text/css" href="TextFont.css">

    </head>

    <body>

        <p>This Paragraph is not styled</p>

        <p class="left">This paragraph is styled by class left</p>

        <p class="right">This paragraph is styled by class right</p>
```

```
<p class="center">This paragraph is styled by class center</p>

<p id="id1">This paragraph is styled by id</p>

</body>

</html>
```

CSS POSITIONING ELEMENTS:

Property Name	Values
position	static (normal flow), fixed (will not move), relative (can overlap), absolute (x & y coordinates)
left, right, top, bottom	Any numeric value (e.g., px, %, em, etc.)

Example:

```
<html>

  <body>
    <h1 style="position:relative;left:10;top:10;z-index:3;background-color:yellow">
      This is layer 1</h1>
    <h1 style="position:relative;left:50;top:-20;z-index:2;background-color:red">
      This is layer 2</h1>
    <h1 style="position:relative;left:100;top:-50;z-index:1;background-color:green">
      This is layer 3</h1>
    <br><br><br>
    <h1 style="position:relative;left:10;top:10;z-index:2;background-color:yellow">
      This is layer 1</h1>
    <h1 style="position:relative;left:50;top:-20;z-index:3;background-color:red">
      This is layer 2</h1>
    <h1 style="position:relative;left:100;top:-50;z-index:1;background-color:green">
      This is layer 3</h1>
    <br><br><br>
    <h1 style="position:relative;left:10;top:10;z-index:1;background-color:yellow">
      This is layer 1</h1>
    <h1 style="position:relative;left:50;top:-20;z-index:2;background-color:red">
      This is layer 2</h1>
    <h1 style="position:relative;left:100;top:-50;z-index:3;background-color:green">
      This is layer 3</h1>
  </body>

</html>
```