

UNIT-03

Ans: Cascading Style Sheets are used to control the presentation and layout of web documents.

Here are some basic concepts of style sheets in CSS:

- 1) Selectors: Selectors are used to target HTML elements that you want to style. For example you can use an element selector like 'p' to target all paragraph or a class selector like '.header' to target elements with a specific class.
- 2) Properties: Properties are the characteristics you want to change such as color, font-size, margin, padding and background color.
- 3) values: values are assigned to properties to define how the selected elements should be styled. For example you can set 'color:red;' to change the text color to red.
- 4) Declaration: A declaration is made up of a Property and its corresponding values. It's contained within curly braces {}, and ends with semicolon ; multiple declarations are separated by semicolons within the curly braces.

Sub-text
than
span style
red

Ex: Selector of

 property 1: value 1;

 property 2: value 2;

}

5) Inline styles

you can apply css directly to an HTML

element using the style attribute

Ex:

<p style="color: blue;"> This is blue paragraph </p>

6) Internal stylesheet

you can include css within the <style> element
in the <head> section of an HTML document

This applies styles to that specific HTML page

Ex: <head>

 <style>

 p {

 color: green;

 }

 </style>

 <head>

7) External stylesheet

You can also create a separate css file

with a '.css' extension and link it to your
HTML document using the '<link>' element

This allows you to apply the same style
across multiple pages.

- Ex: <head>
- ```
<link rel = "stylesheet" type = "text/css">
 href = "styles.css">
```
- </head>
- 8) class and ID Selectors : Besides element selectors, you can use class Selectors and ID Selectors to target specific elements.
- 9) Cascading order : CSS follows a specific order of precedence when multiple styles conflict. It's known as the "cascading" order and is based on specificity and the order of declaration.
- 10) Inheritance : CSS properties can be inherited from parent elements to their child elements.

These are some fundamental Concepts in CSS. CSS is a powerful styling language with many more features and concepts, but understanding these basics will give you a solid foundation to start styling web pages.

2) Cascading Style Sheets, are used to  
Ans: design the style of html. CSS we can  
make webpage in attractive manner i.e.,  
attractive to the user is such a way  
different styles are used such as:

- 1) Inline Style Sheet
- 2) Internal "
- 3) External "

### 1) Inline Style Sheet

These are the styles applied directly to  
individual HTML elements using the style  
attribute. Inline Style Sheet have the highest  
specificity, which means they override other  
styles.

Ex: <html>  
    <body>

    <h1 style = "color : red; margin-left : 40px;">

    Inline CSS is applied on this heading. </h1>

<p> This paragraph is not affected. </p>

</body>

</html>

## 2) Internal Style Sheet

- In this we use style tag.
- These are defined within the HTML documents '

### 3) External style sheet

These are defined in separate CSS files.

These are defined in separate CSS files and linked to the HTML document using the '`<link>`' tag.

(or)

One file is linked with another file by changing the style of it is called External style sheet.

Ex: `<head>`

a)

`<link rel = "stylesheet" type = "text/css"`  
`href = "my style.css"`

`<h1> welcome </h1>`

`</head>`

b) body of

`background-color: blue;`

3

`color: green;`

`margin-left: 20px;`

3

Ans: CSS Selectors are used to "find" (or select) the HTML elements you want to style.

We can divide CSS Selectors into 6 types.

1) element Selector.

2) Specific element Selector

3) Group Selector

4) universal "

5) Id "

6) class "

element Selector

To different Selectors if one style is

mentioned like, applied to all the selectors

Ex: <html>

<head>

<style>

p {

text-align: center;

color: pink;

}

</style>

</head>

<body>

<p> This style will be applied on every

paragraph. </p>

<p> And me! </p>

</body>

</html>

2) Specific element selector

To the specific selector the style is changed then it is known as specific element selector.

Ex: <html>

<head>

<style>

P {

text-align: center;

color: blue;

</p>

<p> This style will be applied on every paragraph. </p>

<p> And me! </p>

<h1> welcome </h1>

</body>

</html>

3) Group selector

To the specific group of selectors if the style is changed then it is known as group selector.

Syntax

Selector<sub>1</sub>, Selector<sub>2</sub> ... Selector<sub>n</sub>

{

- -

g

Ex: <html>  
<head>  
<style>

h1, h2, p {

text-align: center;

color: blue;

}

</style>

</head>

<body>

<h1> Hello Java-point.com <h1>

<h2> Hello Java-point.com (in smaller font) <h2>

<p> This is a paragraph. <p>

</body>

</html>

#### 4) Universal Selector

All the selectors used in the code are represented with star then it is known as universal selector

Syntax

Ex: <html>

<head>

<style>

\* {

color: green;

font-size: 20px;

}

```
</style>
<head>
<body>
<h2> This is heading </h2>
<p> This style will be applied on every paragraph </p>
<p> And me! </p>
</body>
</html>
```

## 5) Id Selector

Id selector is defined as a particular id.  
is created as a selector with that id the  
style is changed then it is called as Id  
selector

⇒ # is symbol used to indicate a id name.

Ex: <html>

<head>

<style>

#para1 {

text-align: center;

color: blue;

}

</style>

</head>

<body>

<p id = "para1">Hello JavaTpoint.com </p>

<p>

<span> </span>

<p> This paragraph will not be affected. </p>

<body>

<html>

### 6) class Selector

The class Selector Selects elements with a specific class attribute. To select elements with a specific class, write a period (.) character, followed by the name of the class.

Ex: <html>

<head>

<style>

p.center {

text-align: center;

color: blue;

</style>

<head>

<body>

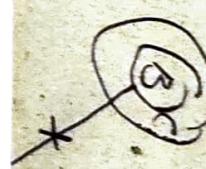
<h1 class = "center"> This heading is not affected

<h1>

<p class = "center"> This paragraph is blue and centered. </p>

<body>

<html>



Ans: Property value forms refer to the different ways in which values or attributes can be assigned to properties in various contexts, such as programming, data modeling, or configuration.

Settings. Here are some common property value forms:

### 1) Literal values

These are direct, explicit values assigned to properties. For example, assigning the color "red" to a "car" property.

2) Variables or references: properties can be assigned values that reference variables or other properties. For instance, setting the "engine" property of a "car" to reference a specific engine object.

### 3) Expressions

Properties can be assigned values that result from expressions or calculations. This can involve mathematical operations, string concatenation or any other computation.

For example, setting the "total price" property of a shopping cart to the result of a calculation based on item prices and quantities.

4) Inheritance : In object-oriented programming, properties can inherit values from parent objects or classes. This is commonly seen in languages like java or python, where subclasses inherit attributes from their parent class.

5) use input : properties can be set based on user input, such as configuration settings chosen by a user in a software application.

Ans: CSS fonts offer a range of options to style the text content within HTML elements. It gives you the ability to control different aspects of fonts including

1) Font family

2) Font size

3) Font style

4) Font variant

5) Font weight

6) Font color

Font family

This property is used to change the face of the font.

Font family categorised into 2 types.

1) General family

2) Font-style family

\* General family is divided into 3 categories

1) Sans-Serif

At the end of the character line is represented with the large lines.

2) Serif

At the end of the character line is represented with the small lines.

3) monospace  
Giving exact space b/w characters.

2) Font-size  
This property is used to increase or decrease the size of the font.

Font-size value, description

small — used to display small text size

x-small — " " " extra small " "

xx-small — " " " extremely small " "

medium — " " " large medium " "

large — " " " large " "

x-large — " " " extra large " "

xx-large — " " " extremely large " "

smaller — " " " comparatively smaller " "

larger — " " " comparatively large " "

font-size: 40px;

3

3) Font-style

This property is used to make the font bold, italic or oblique.

Ex: `h2 { font-style: italic; }`

`h3 { " " : oblique; }`

`h4 { font-style: normal; }`

#### 4) Font variant

This property creates a small-caps effect.

#### 5) Font weight

This property is used to increase or decrease the boldness and lightness of the font.

#### 6) Font color

This property is used to change the color of the text.

The color representation is done in

3 ways:

1) Normal color name

2) using hexa decimal

3) RGB - red, green, blue.

## b) Border properties

The CSS border is a Shorthand property used to set the border on an element.

The CSS border properties are used to specify the style, color and size of the border of an element. The CSS border properties, are given below:

1) border - style

2) border - color

3) border - width

1) css border - style

The Border - Style property is used to specify the border type which you want to display on the webpage.

[There are some border style values which are used with border - style property to define a border]. The following values are allowed:

1) dotted — Defines a dotted border.

2) dashed — ||| ||| dashed |||

3) solid — ||| ||| solid |||

4) double — ||| ||| double |||

- 5) groove — Defines a 3D grooved border
- 6) ridge — " " " " " " ridged " "
- 7) inset — " " " " inset " "
- 8) outset — " " " " outset " "
- 9) hidden — " " " " hidden border
- 10) none — " " Defines no border

### 2) CSS - Border width

The border-width property specifies the width of the four borders.

The width can be set as a specific size (in px, pt, cm, em, etc) or by using one of the three pre-defined values: thin, medium or thick.

### 3) CSS Border Color

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

The color can be set by:

name — specify a color name like "red"

Hex — specify a hex value, like "#ff0000"

RGB — specify a RGB value like, "rgb(255, 0, 0)".

## Example for border property

```
<html>
<style>
 p.dotted { border-style: dotted; }
```

```
 p {
 border: 5px solid red;
 }
```

```
</style>
```

```
<body>
```

```
 <p class = "dotted"> It is a dotted
 border </p>
```

```
 <p> This paragraph represents the
 border properties </p>
```

```
</body>
```

```
</html>
```

### 3) Background properties

Ans: CSS background property is used to define the background effects on element. There are 5 CSS background properties that affects the HTML elements:

- 1) background-color
- 2) " " -image
- 3) " " -repeat
- 4) " " -attachment
- 5) " " -position

#### 1) CSS -background-color

The background-color property is used to specify the background color of the element.

#### 2) CSS -background-image

The background-image property is used to set an image as a background of an element. By default the image covers the entire element.

Note: The background-image should be chosen according to text color. The bad combination of text & background image may be a cause of poor designed and not readable webpage.

### 3) CSS - background - repeat

By default, the background-image property repeats the background image horizontally and vertically; some images are repeated only horizontally or vertically.

The background looks better if the image repeated horizontally only.

### 4) CSS background-attachment

The background attachment property is used to specify if the image is fixed or scroll with the rest of the page in browser window. If you set fixed the background image then the image will not move during scrolling in the browser.

(or)

By default the image will be in scroll format. In order to make the image fixed i.e., fixed value is used.

### CSS background - position

It is used to define the initial position of the background image. By default the background image is placed on the top-left of the webpage.

## program

<html>

<style>

body

{

background : green url("image.jpg")  
no-repeat fixed right top;

}

</style>

<body>

<h1> welcome </h1>

<p> CSS properties contains background

properties <p>

</body>

</html>

8)  
A)

## color property

In CSS the color representation is done in 3 ways.

- 1) Normal color name :
- 2) using hexadecimal
- 3) RGB - red, green, blue .

### 1) Normal color name

It will specify a color name like "red"

### 2) Using hexadecimal

It will specify a Hex value like "#ff0000"

### 3) RGB

It will specify a RGB like "rgb(255,0,0)"

Ex:- body {

    color: red;

}

h1 {

    color: #00f00;

}

p. ex {

    color: rgb(0,0,255);

}

## padding and margin

### Padding

Padding is defined as the space between

the cell content and its borders.

→ padding controls the space inside an element

#### Syntax

padding : size;

padding - top

padding - right

padding - bottom

padding - left

Ex: padding: 40px 20px 50px 60px;

#### Margin

Margin is defined as the space with  
the element borders.

→ margin controls the space outside an element

#### Syntax

margin : 20px;

If margin has 3 values

margin: 20px 40px 60px

80px top

40px left & right

60px bottom

4 values

margin: 40px 20px 50px  
60px;

40px top

20px right

50px bottom

60px left

## Program on both margin & padding

```
<html>
 <head>
 <style>
 .box {
 width: 200px;
 height: 100px;
 border: 2px solid #800000;
 background-color: green;
 padding: 20px;
 margin: 20px;
 }
 </style>
 </head>
 <body>
```

```
 <div class="box">
 Content inside the box.
 </div>
 </body>
</html>
```

```
<div>
</div>
</body>
</html>
```

## a) text property

Ans:

### 1) Font-family

This property specifies the font family or typeface for text. You can define multiple fonts in a fallback order.

#### Syntax

font-family: "Arial", sans-serif;

### 2) Font-size

sets the size of the text. You can use various units like pixels, em's, percentage etc..

#### Syntax

font-size: 16px;

### 3) Font-weight

Defines the thickness or boldness, of the text

#### Syntax

font-weight: bold;

### 4) font-style

specifies whether the text should be

italic or normal.

#### Syntax

font-style: italic;

## 5) text-align

Aligns the text within its containing element horizontally. Common values includes left, right, center and justify.

### Syntax

`text-align: center;`

## 6) text-decoration

Adds decoration to the text such as,

underline overline or line-through

overline - above the text line is represented

underline - text is underline

line-through - the text is strike off.

### Syntax

`text-decoration: underline;`

## 7) line-height

Sets the Spacing b/w lines of text

### Syntax

`line-height: 1.5;`

## 8) letter-spacing

It is used to give space b/w the letters is called letter Spacing.

### Syntax

`letter-spacing: 5px;`

### 9) word-spacing

It is used to give space b/w the words. is called word spacing.

#### Syntax

~~word-spacing: 10px;~~

### 10) text-transform

This property is used to convert the text to lower case to upper case.

#### Syntax

`text-transform: uppercase;`

### 11) Font-color

It will set the color of the text. You can use color name, HEX values, RGB values or other color representation.

#### Syntax

`color: #333;`

## program

```
<html>
<head>
<style>
P {
 color: #333;
 font-family: Arial, sans-serif;
 font-size: 15px;
 font-style: italic;
 font-weight: bold;
 text-align: center;
 text-transform: uppercase;
 text-decoration: underline;
 line-height: 10px;
 letter-spacing: 5px;
 word-spacing: 5px;
}

```

}

```
</style>
```

```
</head>
```

```
<body>
```

<p> This is a styled paragraph of  
text. </p>

```
</body>
```

```
</html>
```

## Shadow property

(or)

### Text - shadow property

The text-shadow property in CSS is used to apply a shadow effect to text elements. It allows you to create a shadow behind the text, giving it a sense of depth and making it stand out on the page.

#### Syntax

text-shadow : h-shadow v-shadow blur-radius color;

- h-shadow and v-shadow specify the horizontal & vertical offset of the shadow respectively. +ve value move the shadow to the right & down, while -ve value move it to the left and up.
- blur radius : it determines the blurriness of the shadow. A larger value creates a more blurred shadow, while a value of 0 creates a sharp shadow.
- color sets the color of the shadow. You can use color names, hexadecimal values, RGB values to define the shadow color.

Ex: h1 {

text-shadow: 2px 2px 4px rgba(0,0,0,0.5);

}

In this example an h1 element will have a text shadow that is 2 pixels to the right, 2 pixels down, with a blur radius of 4 pixels and the Shadow color is a semi-transparent black.

## Background properties

### 1) Box model

Ans: The Box model consists of borders, margin, padding & the actual content of borders is called Box model.

Ex: <html>

<body> <head>

<style>

: div {

background-color: green;

width: 50px;

border: 2px solid green;

margin: 20px;

padding: 10px;

}

</style>

</head>

<body>

<h2> Demonstrating the box model </h2>

</div>

</body>

</html> .

## II) Div tag

The `<div>` tag in HTML is a container element that is used to group other HTML elements together and apply style or manipulate them as a whole. It stands for division and is commonly used to create <sup>(or)</sup> divisions <sub>sections</sub> within a webpage.

→ The `<div>` tag does not have any specific meaning on its own but it provides a way to organize and structure the content of a webpage.

### Syntax

`<div>` `div`

Statements

{ }

### Program

html

`<div>`

`<h1> welcome to my website ! </h1>`

`<p> This is the main content of  
my webpage . </p>`

`</div>`

## Span tag

It is used to change the style to the specific word or a letter.

(or)

The `<span>` tag in HTML is an inline element that is used to apply styling or manipulate specific portions of text within a larger block of content. It is often used to target and style individual words, characters, or small sections of text. Its primary use is to add CSS styles to specific parts of webpage.

### Syntax

```
<p> text subtext </p>
```

Ex:-

html

```
<p> This is a red word. </p>
```