UQ25CA152A - Web Design

Unit 3: Styling with Cascading Style Sheet

Cascading Style Sheets (CSS) define the *presentation* (look and feel) of HTML elements. They separate **content** (HTML) from **style** (CSS).

What is CSS?

- CSS stands for Cascading Style Sheets
- Styles define how to display HTML elements
- Styles are normally stored in Style Sheets
- Styles were added to HTML 4.0 to solve a problem
- External Style Sheets can save you a lot of work
- External Style Sheets are stored in CSS files
- Multiple style definitions will cascade into one

Multiple Styles Will Cascade Into One

Style sheets allow style information to be specified in many ways. Styles can be specifiedinside a single HTML element, inside the element of an HTML page, or inanexternal CSS file. Even multiple external style sheets can be referenced inside a singleHTML document.

A CSS rule consists of **selector**, **property**, and **value**.

Syntax:

selector

{

property: value;

}

: If the value is multiple words, put quotes around the value:

p

{

font-family: "sans serif"

}

If you wish to specify more than one property, you must separate each propertywithasemicolon. The example below shows how to define a center aligned paragraph, witha redtext color:

p {text-align:center;color:red}

Example:

h1

{

     color: green;

     font-size: 24px;

     text-align: center;

     font-family: arial

}

Ways to apply CSS in HTML:

Levels of CSS

1. **Inline CSS** – inside an element's style attribute.

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

2. **Internal CSS** – inside <style> tag in the <head>.

        <style>

          p

          {

          color: green;

          }

        </style>

3. **External CSS** – in a separate .css file linked with <link>.

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

Example :

This is the style sheet file (ex1.css):

body {background-color: yellow}

h1 {font-size: 36pt}

h2 {color: blue}

p {margin-left: 50px}

html file

```
<html>
<head>
<link rel="stylesheet" type="text/css" href="ex1.css" />
</head>

<body>

<h1>This header is 36 pt</h1>
<h2>This header is blue</h2>

<p>This paragraph has a left
margin of 50 pixels</p>
```

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

Types of Selectors

Selector Type	Example	Description
Universal	`* {margin:0;}`	Applies to all elements
Type (Element)	`p {color:blue;}`	Targets all `<p>` tags
Class	`.note {color:red;}`	Targets elements with `class="note"`
ID	`#main {background:yellow;}`	Targets element with `id="main"`
Group	`h1, h2, h3 {color:green;}`	Applies same style to multiple elements

1.The id Selector You can also define styles for HTML elements with the id selector.

The id selector is definedas a #.

The style rule below will match the element that has an id attribute with a value of "green":

#green {color: green}

<p class id="green">PES University</>

Property Value Forms

Property	Example	Description
color	`color: blue;`	Text color
background-color	`background-color: yellow;`	Background color
margin	`margin: 10px 20px;`	Space outside element
padding	`padding: 10px;`	Space inside element
border	`border: 2px solid red;`	Border style

Font Style Properties

Property	Example	Description
font-family	`font-family: Arial, sans-serif;`	Font type
font-size	`font-size: 18px;`	Font size
font-weight	`font-weight: bold;`	Thickness
font-style	`font-style: italic;`	Italic text
font-variant	`font-variant: small-caps;`	Small capital letters

p {

  font-family: 'Times New Roman', serif;

  font-size: 20px;

  font-weight: bold;

}

[Set the font of a text](#)

This example demonstrates how to set a font of a text.

```
<html>
<head>
<style type="text/css">     h3 {font-family: times}
 p         {font-family: courier
font-size: 150%
font-style: italic
font-weight: bold
}
p.sansserif {font-family: sans-serif}
</style>
</head>
<body>
<h3>This is header 3</h3>
<p>This is a paragraph</p>
<p class="sansserif">This is a paragraph</p>
</body>
</html>
```

CSS Web Fonts

CSS allows the use of custom fonts via @font-face.

Ex:

@font-face

{

  font-family: "MyFont";

  src: url("myfont.woff");

}

p {

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

}

<style>

body { font-family: 'Poppins', sans-serif; }

</style>

CSS Text Properties:

Property	Example	Description
color	color: blue;	Text color
text-align	text-align: center;	Text alignment
text-decoration	text-decoration: underline;	Underline or none
text-transform	text-transform: uppercase;	Changes case
letter-spacing	letter-spacing: 2px;	Space between letters
line-height	line-height: 1.5;	Line spacing

h2 {

  text-align: center;

  text-transform: uppercase;

  color: darkred;

}

Specify the space between lines
This example demonstrates how to specify the space between the lines in a paragraph

```
<html>

<head>

<style type="text/css">
p.small {line-height: 90%}

p.big {line-height: 200%}

</style>

</head>


<body>

<p>

This is a paragraph with a standard line-height.

The default line height in most browsers is about 110% to 120%.
This is a paragraph with a standard line-height.

This is a paragraph with a standard line-height.

</p>

<p class="small">

This is a paragraph with a smaller line-
height. This is a paragraph with a smaller
line-height. This is a paragraph with a
smaller line-height. This is a paragraph with
a smaller line-height.
```

```
</p>


<p class="big">

This is a paragraph with a bigger line-
height. This is a paragraph with a bigger
line-height. This is a paragraph with a
bigger line-height. This is a paragraph with
a bigger line-height.

</p>

</body>

</html>
```

[Decorate the text](#)
This example demonstrates how to add decoration to text.

```
<html>

<head>

<style type="text/css">

h1 {text-decoration: overline}

h2 {text-decoration: line-
through} h3 {text-decoration:
underline}

a {text-decoration: none}

</style>
```

```
</head>

<body>

<h1>This is header 1</h1>

<h2>This is header 2</h2>

<h3>This is header 3</h3>

<p><a href="http://www.rnsit.in/index.htm">This is a link</a></p>

</body>

</html>
```

Control the letters in a text

This example demonstrates how to control the letters in a text.

```
<style type="text/css">


<html>

<head>

p.uppercase {text-transform: uppercase}
p.lowercase {text-transform: lowercase}
p.capitalize {text-transform: capitalize}

</style>

</head>

<body>

<p class="uppercase">This is some text in a paragraph</p>

<p class="lowercase">This is some text in a paragraph</p>

<p class="capitalize">This is some text in a paragraph</p>

</body>

</html>
```

CSS Background Properties and Div Tag

Common Properties:

Property	Example	Description
background-color	background-color: lightblue;	Set color
background-image	background-image: url("flower.jpg");	Set image
background-repeat	background-repeat: no-repeat;	Repeat image or not
background-position	background-position: right top;	Image position
background-size	background-size: cover;	Scale image

Example: Set the background color

This example demonstrates how to set the background color for an element.

```
<html>

<head>

<style type="text/css">

body {background-color:
yellow}

h1 {background-color:#00ff00}

h2 {background-color:
transparent} p {background-color:
rgb(250,0,255)}

</style>

</head>

<body>

<h1>This is header 1</h1>

<h2>This is header 2</h2>

<p>This is a paragraph</p>

</body>

</html>
```

Set an image as the background
This example demonstrates how to set an image as the background.

```
<html>

<head>

<style
type="text/css"> body

{

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

}

</style>

</head>

<body>

</body>

</html>
```

How to repeat a background image
This example demonstrates how to repeat a background image.

```
<html>

<head>

<style
type="text/css"> body

{

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

}

</style>

</head>

<body>

</body>

</html>
```

How to repeat a background image only vertically
This example demonstrates how to repeat a background image only vertically.

```
<html>

<head>

<style type="text/css">
body

{

background-image:
url('bgdesert.jpg');
background-repeat: repeat-y

}

</style>
```

How to repeat a background image only horizontally
This example demonstrates how to repeat a background image only horizontally.

```
<html>

<head>

<style type="text/css">
body

{

background-image:
url('bgdesert.jpg');
background-repeat: repeat-x

}

</style>
```

How to display a background image only one time
This example demonstrates how to display a background image only one time

```
<html>

<head>

<style
type="text/css"> body

{

background-image:
url('bgdesert.jpg'); background-
repeat: no-repeat

}

</style>

</head>

<body>

</body>

</html>
```

How to place the background image

 This example demonstrates how to place the image on the page.

```
<html>

<head>

<style
type="text/css"> body

{

background-image:url('smiley.gif');
background-repeat:no-repeat;
background-attachment:fixed;
background-position:center;

}

</style>

</head>

<body>

<p><b>Note:</b> For this to work in Mozilla, the background-attachment
property must be set to "fixed".</p>

</body>

</html>
```

Div tag

```
<style>

div

{

  background-image: url("flower.jpg");

  background-size: cover;

  height: 200px;

  width: 300px;

  border: 2px solid black;

}

</style>

<div></div>
```

CSS Gradients:

Gradients are smooth transitions between two or more colors.

Linear Gradient:

```
div
{
background: linear-gradient(to right, red, yellow);
}
```

Radial Gradient:

```
div
{
  background: radial-gradient(circle, blue, white);
}
```

CSS Transitions:

Transitions create smooth effects when property values change (e.g., color, width).

Syntax:

```
selector
{
  transition: property duration timing-function;
}
```

EX:

```
<style>
div {
  width: 100px;
  height: 100px;
  background-color: green;
  transition: width 1s ease, background-color 1s;
}
div:hover {
  width: 200px;
  background-color: red;
}
```

```
</style>
```

```
<div></div>
```

CSS Border:

The CSS border properties define the borders around an element

All the border properties in one declaration
This example demonstrates a shorthand property for setting all of the properties for the four borders in one declaration, can have from one to three values.

```
<html>

<head>

<style
type="text/css"> p

{

border: medium double rgb(250,0,255)

}

</style>

</head>


<body>

<p>Some text</p>

</body>

</html>
```

Set different borders on each side
This example demonstrates how to set different borders on each side of the element.

```
<html>

<head>

<style type="text/css">

p.soliddouble {border-style: solid double}
p.doublesolid {border-style: double solid}
p.groovedouble {border-style: groove
double} p.three {border-style: solid double
groove}

</style>

</head>

<body>

<p class="soliddouble">Some text</p>

<p class="doublesolid">Some text</p>

<p class="groovedouble">Some text</p>
```

```
<p class="three">Some text</p>

</body>

</html>
```

CSS List:

[The different list-item markers in unordered lists](#)
This example demonstrates the different list-item markers in CSS.

```
<html>

<head>

<style type="text/css">
ul.disc {list-style-type:
disc}

ul.circle        {list-style-type:
circle}   ul.square   {list-style-
type:   square}   ul.none   {list-
style-type: none}

</style>

</head>

<body>

<ul class="disc">

<li>Coffee</li>

<li>Tea</li>

<li>Coca Cola</li>

</ul>

<ul class="circle">

<li>Coffee</li>

<li>Tea</li>

<li>Coca Cola</li>

</ul>

<ul class="square">

<li>Coffee</li>

<li>Tea</li>

<li>Coca Cola</li>

</ul>

<ul class="none">

<li>Coffee</li>

<li>Tea</li>

<li>Coca Cola</li>

</ul>
```