Vidyavardhini's College of Engineering and Technology

Department of Artificial Intelligence & Data Science

AY: 2025-26

Class:	**TE**	**Semester:**	**V**
Course Code:	**CSC502**	**Course Name:**	**WC**

Name of Student:	**Shreya Sandeep Yadav**
Roll No. :	**80**
Experiment No.:	**02**
Title of the Experiment:	**The appropriate CSS tags to format data on webpage**
Date of Performance:	**15/07/25**
Date of Submission:	**22/07/25**

Evaluation

Performance Indicator	Max. Marks	Marks Obtained
Performance	5	
Understanding	5	
Journal work and timely submission	10	
Total	20	

Performance Indicator	Exceed Expectations (EE)	Meet Expectations (ME)	Below Expectations (BE)
Performance	4-5	2-3	1
Understanding	4-5	2-3	1
Journal work and timely submission	8-10	5-8	1-4

Checked by

Name of Faculty : Ms. Kshitija Gharat

Signature :

Date:

Aim - Identify and apply the appropriate CSS tags to format data on webpage

Objective - To expose students to CSS for formatting web pages.

Theory -

Introduction of CSS

CSS stands for Cascading Style Sheets. CSS describes how HTML elements are to be displayed on screen, paper, or in other media. CSS saves a lot of work. It can control the layout of multiple web pages all at once. External style sheets are stored in CSS files.

Syntax :

CSS rule consists of a selector and a declaration block. The selector points to the HTML element you want to style. The declaration block contains one or more declarations separated by semicolons. Each declaration includes a CSS property name and a value, separated by a colon.

Multiple CSS declarations are separated with semicolons, and declaration blocks are surrounded by curly braces.

Eg.

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

Explaination

- p is a selector in CSS (it points to the HTML element you want to style: <p>).
- color is a property, and red is the property value
- text-align is a property, and center is the property value

INCLUSION

There are three ways of inserting a style sheet:

- External CSS
- Internal CSS
- Inline CSS

1. External CSS

With an external style sheet, you can change the look of an entire website by changing just one file. Each HTML page must include a reference to the external style sheet file inside the <link> element, inside the head section.

<!DOCTYPE html>

```
<html>
<head>
<link rel="stylesheet" href="mystyle.css">
</head>
<body>
<h1>This is a heading</h1>
<p>This is a paragraph.</p>
 </body>
</html>
```

Save above instructions in a file called "CSSDemo.html".

An external style sheet can be written in any text editor, and must be saved with a .css extension. The external .css file should not contain any HTML tags.

Here is how the "mystyle.css" file looks:

```
body {
  background-color: lightblue;
}
h1 {
  color: navy;
  margin-left: 20px;
}
```

2. Internal CSS

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

```
 <!DOCTYPE html>
<html>
<head>
<style>
body {
background-color: linen;
}
h1 {
color: maroon;
margin-left: 40px;
```

```
}
</style>
</head>
<body>
<h1>This is a heading</h1>
<p>This is a paragraph.</p>
</body>
</html>
```

3. Inline CSS

An inline style may be used to apply a unique style for a single element. To use inline styles, add the style attribute to the relevant element. The style attribute can contain any CSS property.

```
<!DOCTYPE html>
<html>
<body>
<h1 style="color:blue;text-align:center;">This is a heading</h1>
<p style="color:red;">This is a paragraph.</p>
</body>
</html>
```

COLOR :

Colors are specified using predefined color names, or RGB, HEX and HSL values.

CSS RGB Colors

An RGB color value represents RED, GREEN, and BLUE light sources.

In CSS, a color can be specified as an RGB value, using this formula:

rgb(*red, green*, *blue*)

Each parameter (red, green, and blue) defines the intensity of the color between 0 and 255. For example, rgb(255, 0, 0) is displayed as red, because red is set to its highest value (255) and the others are set to 0.

To display black, set all color parameters to 0, like this: rgb(0, 0, 0).

To display white, set all color parameters to 255, like this: rgb(255, 255, 255).

Experiment by mixing the RGB values below:

rgb(255, 99, 71)

eg. <h1 style="background-color:rgb(255, 99, 71);">RGB Colors</h1>

CSS HEX Colors

A hexadecimal color is specified with: #RRGGBB, where the RR (red), GG (green) and BB (blue) hexadecimal integers specify the components of the color.

HEX Value

In CSS, a color can be specified using a hexadecimal value in the form:

#rrggbb

Where rr (red), gg (green) and bb (blue) are hexadecimal values between 00 and ff (same as decimal 0-255).

For example, #ff0000 is displayed as red, because red is set to its highest value (ff) and the others are set to the lowest value (00).

To display black, set all values to 00, like this: #000000.

To display white, set all values to ff, like this: #ffffff.

Experiment by mixing the HEX values below:

#ff6347

Eg. <h1 style="background-color:#ff6347;">Hex Colors</h1>

CSS HSL Colors

HSL stands for hue, saturation, and lightness.

HSL Value

In CSS, a color can be specified using hue, saturation, and lightness (HSL) in the form:

hsl(*hue*, *saturation*, *lightness*)

Hue is a degree on the color wheel from 0 to 360. 0 is red, 120 is green, and 240 is blue.

Saturation is a percentage value. 0% means a shade of gray, and 100% is the full color.

Lightness is also a percentage. 0% is black, 50% is neither light or dark, 100% is white

Experiment by mixing the HSL values below:

hsl(0,100%,50%)

Eg. <h1 style="background-color:hsl(9, 100%, 64%);">HSL Colors</h1>

BACKGROUND :

The CSS background properties are used to add background effects for elements.

CSS background-color

The background-color property specifies the background color of an element.

Eg.

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

CSS background-image

The 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.

Eg.

```
body {
  background-image: url("paper.gif");
}
```

FONTS :

Choosing the right font has a huge impact on how the readers experience a website. The right font can create a strong identity for your brand. Using a font that is easy to read is important. The font adds value to your text. It is also important to choose the correct color and text size for the font.

In CSS, we use the font-family property to specify the font of a text.

Eg.

```
.p1 {
  font-family: "Times New Roman", Times, serif;
}
```

The font-size property sets the size of the text.

Eg.

```
p {
  font-size: 14px;
}
```

TABLES :

Table Borders

To specify table borders in CSS, use the border property.

The example below specifies a solid border for <table>, <th>, and <td> elements:

Firstname	Lastname

Peter	Griffin
Lois	Griffin

```
table, th, td {
  border: 1px solid;
}
```

The width and height of a table are defined by the width and height properties.

```
table {
  width: 100%;
}
th {
  height: 70px;
}
```

LISTS :

In HTML, there are two main types of lists:

- unordered lists (<ul>) - the list items are marked with bullets
- ordered lists (<ol>) - the list items are marked with numbers or letters

The CSS list properties allow you to:

- Set different list item markers for ordered lists
- Set different list item markers for unordered lists
- Set an image as the list item marker
- Add background colors to lists and list items

Eg.

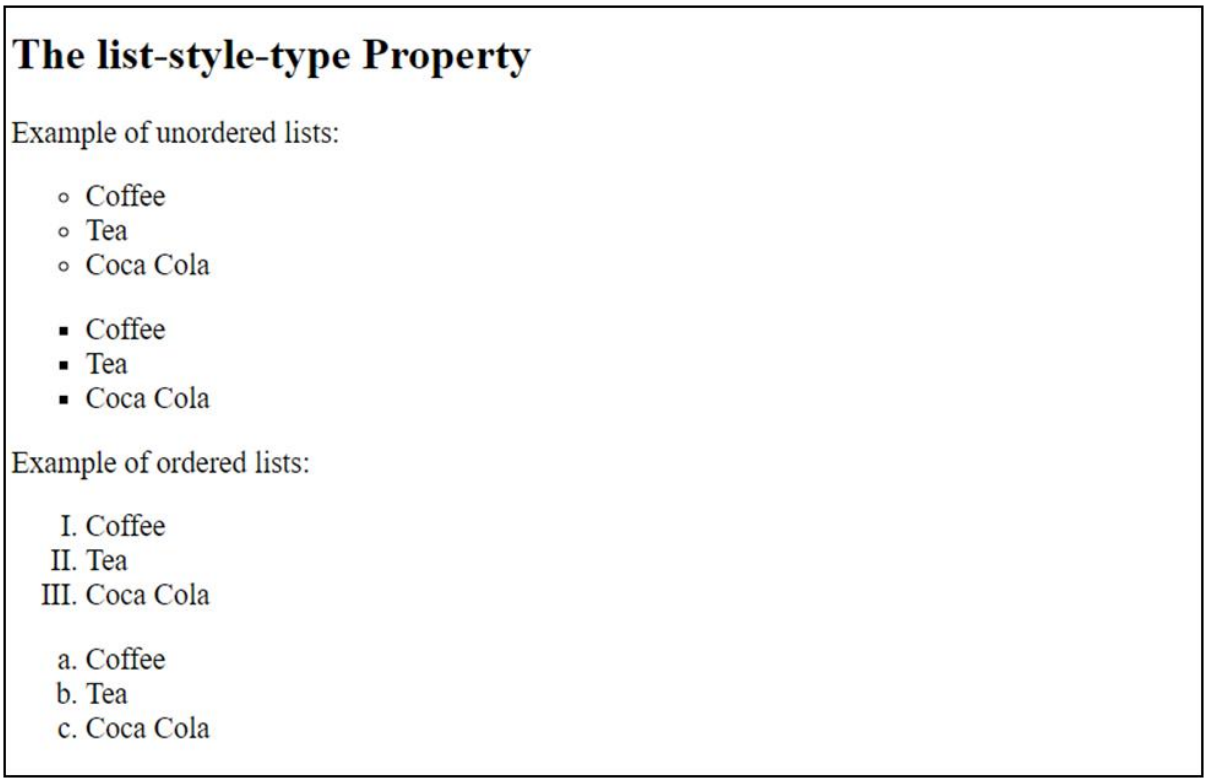
```
<!DOCTYPE html>
<html>
<head>
<style>
ul.a {
  list-style-type: circle;
}
ul.b {
  list-style-type: square;
```

```
}
 ol.c {
  list-style-type: upper-roman;
}

ol.d {
  list-style-type: lower-alpha;
}
</style>
</head>
<body>
<h2>The list-style-type Property</h2>
<p>Example of unordered lists:</p>
<ul class="a">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Coca Cola</li>
</ul>
<ul class="b">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Coca Cola</li>
</ul>
<p>Example of ordered lists:</p>
<ol class="c">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Coca Cola</li>
</ol>
<ol class="d">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Coca Cola</li>
</ol>
```

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

Output:



PSEUDO CLASSES :

A pseudo-class is used to define a special state of an element.

For example, it can be used to:

- Style an element when a user mouses over it
- Style visited and unvisited links differently
- Style an element when it gets focus

Syntax

```
selector:pseudo-class {
  property: value;
}
```

Eg.

```
p:first-child {
  color: blue;
}
```

PSEUDO ELEMENTS :

A CSS pseudo-element is used to style specified parts of an element.

For example, it can be used to:

- Style the first letter, or line, of an element
- Insert content before, or after, the content of an element

Syntax

```
selector::pseudo-element {
  property: value;
}
```

Eg.

```
p::first-line {
  color: #ff0000;
  font-variant: small-caps;
}
```

Program-

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>CSS3 Features Demonstration</title>
  <style>
    body {
      font-family: "Segoe UI", sans-serif;
      background-color: #0d1117;
      color: #c9d1d9;
      margin: 0;
      padding: 0;
    }
```

```
h2 {
  text-align: center;
  color: #58a6ff;
  background: #161b22;
  padding: 15px 0;
  margin: 0;
  font-weight: 600;
  border-bottom: 1px solid #30363d;
  text-shadow: 0 0 10px #58a6ff;
}

.container {
  margin: 20px auto;
  width: 90%;
  background-color: #161b22;
  border-radius: 10px;
  padding: 20px;
  box-shadow: 0 0 10px #0d419d;
}

.highlight {
  background-color: #1e2a3a;
  border-left: 5px solid #58a6ff;
  padding: 10px;
  color: #c9d1d9;
  margin-bottom: 20px;
}

.highlight a {
  color: #58a6ff;
  text-decoration: none;
  font-weight: bold;
}
```

```
.highlight a:hover {
  text-decoration: underline;
  color: #1f6feb;
}

h3 {
  color: #58a6ff;
  border-bottom: 1px solid #30363d;
  padding-bottom: 5px;
}

ul, ol {
  margin-left: 25px;
}

table {
  width: 100%;
  border-collapse: collapse;
  margin-top: 10px;
  background-color: #0d1117;
  color: #c9d1d9;
  border-radius: 5px;
  overflow: hidden;
}

th, td {
  border: 1px solid #30363d;
  padding: 10px;
  text-align: left;
}

th {
  background-color: #21262d;
  color: #58a6ff;
```

```
  }

  tr:nth-child(even) {
    background-color: #161b22;
  }

  tr:hover {
    background-color: #1e2a3a;
    transition: 0.3s;
  }

  .form-section {
    margin-top: 20px;
  }

  input, select {
    background-color: #0d1117;
    border: 1px solid #30363d;
    color: #c9d1d9;
    padding: 5px;
    border-radius: 4px;
  }

  input:focus, select:focus {
    outline: none;
    border-color: #58a6ff;
    box-shadow: 0 0 5px #58a6ff;
  }
 </style>
</head>
<body>

 <h2>CSS3 Features Demonstration</h2>
```

```
<div class="container">
  <p class="highlight">
    This paragraph is using a class selector with background and border styling.
    <a href="#">Hover over this link</a> to see pseudo-class in action.
  </p>

  <h3>Unordered List</h3>
  <ul>
    <li>Item One</li>
    <li>Item Two</li>
    <li>Item Three</li>
  </ul>
  <ul type="circle">
    <li>Item One</li>
    <li>Item Two</li>
    <li>Item Three</li>
  </ul>

  <h3>Ordered List</h3>
  <ol type="I">
    <li>First</li>
    <li>Second</li>
    <li>Third</li>
  </ol>
  <ol type="a">
    <li>TOP</li>
    <li>MIDDLE</li>
    <li>BOTTOM</li>
  </ol>

  <h3>Sample Table</h3>
  <table>
    <tr>
      <th>Name</th>
```

```
      <th>Age</th>
      <th>Department</th>
    </tr>
    <tr>
      <td>ARYAN</td>
      <td>20</td>
      <td>Computer Science</td>
    </tr>
    <tr>
      <td>PRIYA</td>
      <td>22</td>
      <td>Information Tech</td>
    </tr>
    <tr>
      <td>ROHAN</td>
      <td>23</td>
      <td>Human Resources</td>
    </tr>
  </table>

  <h3>Form Input Example</h3>
  <div class="form-section">
    <input type="text" placeholder="Enter your name">
  </div>

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

Output-

Conclusion – Cascading StyleSheets (CSS) provides different approaches to developers in order to built standard webpages.