

Module III: Web Design aspects

CSS Overview -Apply CSS syntax, selectors, and properties.

Author: Pappumoni Bordoloi



TLO-8, TLO-9

- ✓ Apply CSS syntax, selectors, and properties.

Session Activity

- ✓ Apply CSS Syntax, rules, selectors, Inline Styling (Inline CSS), and External Styling (External CSS) on the webpage
- ✓ Apply CSS Selector and Properties on the webpage
- ✓ Apply CSS Font, Font-size and family, font weight and stretch, and Colors, and Hover on the webpage

Keywords



CSS Comments

- ✓ CSS comments are not displayed in the browser, but they can help document your source code.

```
/* This is a single-line comment */  
p {  
    color: red;  
}
```

CSS Backgrounds

- ✓ The CSS background properties are used to add background effects for elements

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

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

EXPLORE

https://www.w3schools.com/css/css_background_attachment.asp#gsc.tab=0



✓ The CSS border properties allow you to specify the style, width, and color of an element's border.

```
<style>
p.dotted {border-style: dotted;}
p.dashed {border-style: dashed;}
p.solid {border-style: solid;}
p.double {border-style: double;}
p.groove {border-style: groove;}
p.ridge {border-style: ridge;}
p.inset {border-style: inset;}
p.outset {border-style: outset;}
p.none {border-style: none;}
p.hidden {border-style: hidden;}
p.mix {border-style: dotted dashed solid double;}
</style>
```

EXPLORE

https://www.w3schools.com/css/css_border.asp

CSS Borders

✓ The CSS border properties allow you to specify the style, width, and color of an element's border.

Bottom Border

```
.B-bottom {  
  border-bottom: 6px solid red;  
}
```

CSS Rounded Borders

```
p.round3 {  
  border: 2px solid red;  
  border-radius: 12px;  
  padding: 5px;  
}
```

EXPLORE

https://www.w3schools.com/css/tryit.asp?filename=trycss_border_round

CSS Margins

- ✓ The CSS **margin** properties are used to create space around elements, outside of any defined borders.
- ✓ With CSS, you have full control over the margins. There are properties for setting the margin for each side of an element (top, right, bottom, and left).

If the **margin** property has four values:

- **margin: 25px 50px 75px 100px;**
 - top margin is 25px
 - right margin is 50px
 - bottom margin is 75px
 - left margin is 100px

```
div {  
  border: 1px solid black;  
  margin: 25px 50px 75px 100px;  
  background-color: lightblue;  
}
```

EXPLORE

https://www.w3schools.com/css/css_margin.asp

CSS Paddings

- ✓ The CSS padding properties are used to generate space around an element's content, inside of any defined borders.

CSS has properties for specifying the padding for each side of an element:

- padding-top
- padding-right
- padding-bottom
- padding-left

- padding: 25px 50px 75px 100px;**

- top padding is 25px
- right padding is 50px
- bottom padding is 75px
- left padding is 100px

```
div {  
  border: 1px solid black;  
  margin: 25px 50px 75px 100px;  
  background-color: lightblue;  
}
```

EXPLORE

https://www.w3schools.com/css/css_padding.asp

CSS Box Model

- ✓ The CSS box model is essentially a box that wraps around every HTML element. It consists of: margins, borders, padding, and the actual content. The image below illustrates the box model:

Explanation of the different parts:

- **Content** - The content of the box, where text and images appear
- **Padding** - Clears an area around the content. The padding is transparent
- **Border** - A border that goes around the padding and content
- **Margin** - Clears an area outside the border. The margin is transparent

```
.divbox {  
  background-color: lightgrey;  
  width: 300px;  
  border: 15px solid green;  
  padding: 50px;  
  margin: 20px;  
}
```

EXPLORE

https://www.w3schools.com/css/css_margin.asp

CSS Text

Properties of text

- ✓ Text Color
- ✓ Text Alignment
- ✓ Text Decoration
- ✓ Text Transformation
- ✓ Text Spacing
- ✓ Text Shadow

Text Color

```
body {  
  background-color: lightgrey;  
  color: blue;  
}  
  
h1 {  
  background-color: black;  
  color: white;  
}  
  
div {  
  background-color: blue;  
  color: white;  
}
```

Text Alignment

```
p.a {  
  text-align: right;  
}  
  
p.b {  
  text-align: center;  
}  
  
p.c {  
  text-align: justify;  
}
```

EXPLORE

https://www.w3schools.com/css/css_text.asp

Text Transformation

```
p.uppercase {
  text-transform: uppercase;
}

p.lowercase {
  text-transform: lowercase;
}

p.capitalize {
  text-transform: capitalize;
}
```

CSS Text Decoration

```
h1 {
  text-decoration-line: overline;
  text-decoration-color: red;
}

h2 {
  text-decoration-line: line-through;
  text-decoration-color: blue;
}

h3 {
  text-decoration-line: underline;
  text-decoration-color: green;
}

p {
  text-decoration-line: overline underline;
  text-decoration-color: purple;
}
```

CSS Text Spacing

- Text-indent
- letter-spacing
- line-height
- word-spacing
- white-space
- Text-shadow

```
p {
  text-indent: 50px;
}

h1 {
  letter-spacing: 5px;
}

p.small {
  line-height: 17px;
}

h1 {
  color: white;
  text-shadow: 2px 2px 4px #000000;
}
```

EXPLORE

https://www.w3schools.com/css/css_text_shadow.asp

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

```
p1 {  
  font-family: "Times New Roman", Times, serif;  
  font-style: normal;  
}  
  
.p2 {  
  font-family: Arial, Helvetica, sans-serif;  
  font-style: italic;  
}  
  
.p3 {  
  font-family: "Lucida Console", "Courier New", monospace;  
  font-style: oblique;  
}
```

EXPLORE

https://www.w3schools.com/css/css_font.asp

Google Font and Style

- ✓ If you do not want to use any of the standard fonts in HTML, you can use Google Fonts. Google Fonts are free to use, and have more than 1000 fonts to choose from.

Style the "Sofia" font:

```
<head>
<link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Sofia"
>
<style>
body {
    font-family: "Sofia", sans-serif;
    font-size: 30px;
    text-shadow: 3px 3px 3px #ababab;
}
</style>
</head>
```

EXPLORE

https://www.w3schools.com/css/css_font_style.asp

Form fieldset

With CSS, links can be styled in many different ways.

The four links states are:

- **a:link** - a normal, unvisited link
- **a:visited** - a link the user has visited
- **a:hover** - a link when the user mouses over it
- **a:active** - a link the moment it is clicked

```
/* unvisited link */
a:link {
    color: red;
}

/* visited link */
a:visited {
    color: green;
}

/* mouse over link */
a:hover {
    color: pink;
}

/* selected link */
a:active {
    color: blue;
}
```

EXPLORE

https://www.w3schools.com/css/css_link.asp

CSS Table

A **table** in CSS is used to apply the various styling properties to the [HTML Table](#) elements to arrange the data in rows and columns, or possibly in a more complex structure in a properly organized manner.

EXPLORE

https://www.w3schools.com/css/css_table.asp

```
#thead {  
  font-family: Arial, Helvetica, sans-serif;  
  border-collapse: collapse;  
  width: 100%;  
}
```

```
#thead td, #thead th {  
  border: 1px solid #B18D1C;  
  padding: 8px;  
}
```

```
#thead tr:nth-child(even){  
  background-color: #f2f2f2;  
}
```

```
#thead tr:hover {  
  background-color: #B18D1C;  
}
```

```
#thead th {  
  padding-top: 12px;  
  padding-bottom: 12px;  
  text-align: left;  
  background-color: #04AA6D;  
  color: white;  
}
```

CSS Layout- width and max-width

max-width instead, in this situation, will improve the browser's handling of small windows. This is important when making a site usable on small devices:

CSS Layout - Float

```
* {  
  box-sizing: border-box;  
}  
  
.box {  
  float: left;  
  width: 33.33%;  
  padding: 50px;  
}  
  
.clearfix::after {  
  content: "";  
  clear: both;  
  display: table;  
}
```

```
div.ex1 {  
  width: 500px;  
  margin: auto;  
  border: 3px solid #73AD21;  
}
```

```
div.ex2 {  
  max-width: 500px;  
  margin: auto;  
  border: 3px solid #73AD21;  
}
```

EXPLORE

https://www.w3schools.com/css/css_max-width.asp

Position Property

`max-width` instead, in this situation, will improve the browser's handling of small windows. This is important when making a site usable on small devices:

There are five different position values:

- static
- relative
- fixed
- absolute
- sticky

EXPLORE

https://www.w3schools.com/css/css_positioning.asp

```
div.sticky {  
  position: -webkit-sticky;  
  position: sticky;  
  top: 0;  
  padding: 5px;  
  background-color: #cae8ca;  
  border: 2px solid #4CAF50;  
}
```

```
div.absulate {  
  position: absulate;  
  top: 0;  
  padding: 5px;  
  background-color: #cae000;  
  border: 2px solid #4CAF50;  
}
```

```
div.fixed {  
  position:fixed;  
  top: 0;  
  padding: 5px;  
  background-color: #cae000;  
  border: 2px solid #4CAF50;  
}
```



CSS z-index property

The **z-index** property specifies the stack order of an element (which element should be placed in front of, or behind, the others).

```
.container {  
  position: relative;  
}  
  
.black-box {  
  position: relative;  
  z-index: 1;  
  border: 2px solid black;  
  height: 100px;  
  margin: 30px;  
}  
  
.gray-box {  
  position: absolute;  
  z-index: 3;  
  background: lightgray;  
  height: 60px;  
  width: 70%;  
  left: 50px;  
  top: 50px;  
}  
  
.green-box {  
  position: absolute;  
  z-index: 2;  
  background: lightgreen;  
  width: 35%;  
  left: 270px;  
  top: -15px;  
  height: 100px;  
}
```

EXPLORE

https://www.w3schools.com/css/css_positioning.asp

CSS Navigation Bar

Having easy-to-use navigation is important for any web site with CSS we can transform HTML menus into good-looking navigation bars.

1. Vertical Navbar
2. Horizontal Navbar

```
body {  
  margin: 0;  
}  
  
ul {  
  list-style-type: none;  
  margin: 0;  
  padding: 0;  
  width: 25%;  
  background-color: #f1f1f1;  
  position: fixed;  
  height: 100%;  
  overflow: auto;  
}
```

```
li a {  
  display: block;  
  color: #000;  
  padding: 8px 16px;  
  text-decoration: none;  
}
```

```
li a.active {  
  background-color: #04AA6D;  
  color: white;  
}
```

```
li a:hover:not(.active) {  
  background-color: #555;  
  color: white;  
}
```

EXPLORE

https://www.w3schools.com/css/css_navbar_vertical.asp

CSS Navigation Bar

Having easy-to-use navigation is important for any web site with CSS we can transform HTML menus into good-looking navigation bars.

2. Horizontal Navbar

```
body {  
  margin: 0;  
}  
  
ul {  
  list-style-type: none;  
  margin: 0;  
  padding: 0;  
  width: 25%;  
  background-color: #f1f1f1;  
  position: fixed;  
  height: 100%;  
  overflow: auto;  
}
```

```
li a {  
  display: block;  
  color: #000;  
  padding: 8px 16px;  
  text-decoration: none;  
}
```

```
li a.active {  
  background-color: #04AA6D;  
  color: white;  
}
```

```
li a:hover:not(.active) {  
  background-color: #555;  
  color: white;  
}
```

EXPLORE

https://www.w3schools.com/css/css_navbar_vertical.asp

CSS float Property

The **float** property specifies whether an element should float to the left, right, or not at all.

Note: Absolutely positioned elements ignore the **float** property!

CSS Syntax

`float: left;`

```
img
{
  float: left;
  width:170px;
  height:170px;
  margin-bottom:15px;
}
```



EXPLORE

https://www.w3schools.com/cssref/tryit.php?filename=trycss_float2

Practical Task for Lab

- ✓ Practice with various CSS Properties and evaluate the Properties with a given task in the Class
 - ✓ CSS Task 1
 - ✓ CSS Task 2 (Webpage Layout)



Reference

https://www.w3schools.com/css/css_background_attachment.asp#gsc.tab=0

https://www.w3schools.com/css/css_positioning.asp

https://www.w3schools.com/css/css_navbar_vertical.asp

https://www.w3schools.com/css/css_navbar_vertical.asp

https://www.w3schools.com/css/css_text_shadow.asp



Thank You

tek.c@msu.edu.in and 8348172923

