



1420-7001

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Web Programming



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Summary of the Previous Lesson [3rd Lecture]

- CSS Basics
 - ▣ Inline
 - ▣ Internal
 - ▣ External
- CSS Application to Text
 - ▣ Simple examples

Part IV

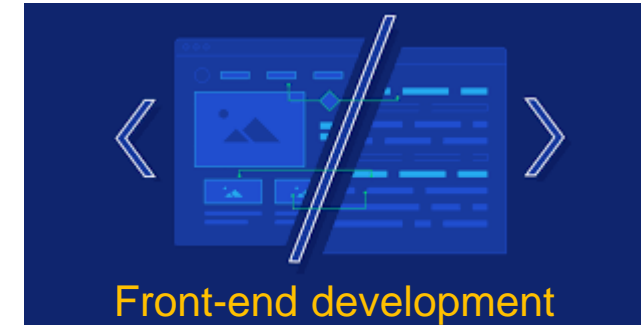
□ HTML Phrase Tags

- Strong
- Emphasized
- Codes
- Variables
- Inputs
- Etc.

Part III

□ Tag identification activity

Part I



- Multiple files coding
 - Same language
 - Different languages

Part II

Note: Please execute all codes at least once on your computers.

Class Activity #: 02

- Identify the tags that can be impacted by CSS.

- If we have two <p> tags, do we need to write CSS separately or one is sufficient?
- What do we call the color codes given in this figure?
- Which type of CSS is used in this figure?
- Which is the drawback of the CSS style used in this figure?

```
<html>
<head>
  <title>CSS Tutorial</title>
  <style>
    h1 {
      color: #36CFFF;
    }

    p {
      font-size: 1.5em;
      color: white;
    }

    div {
      border: 5px inset gold;
      background-color: black;
      width: 300px;
      text-align: center;
    }
  </style>
</head>
<body>
  <div>
    <h1>Hello World!</h1>
    <p>This is a sample CSS code.</p>
  </div>
</body>
</html>
```

Output of the code.

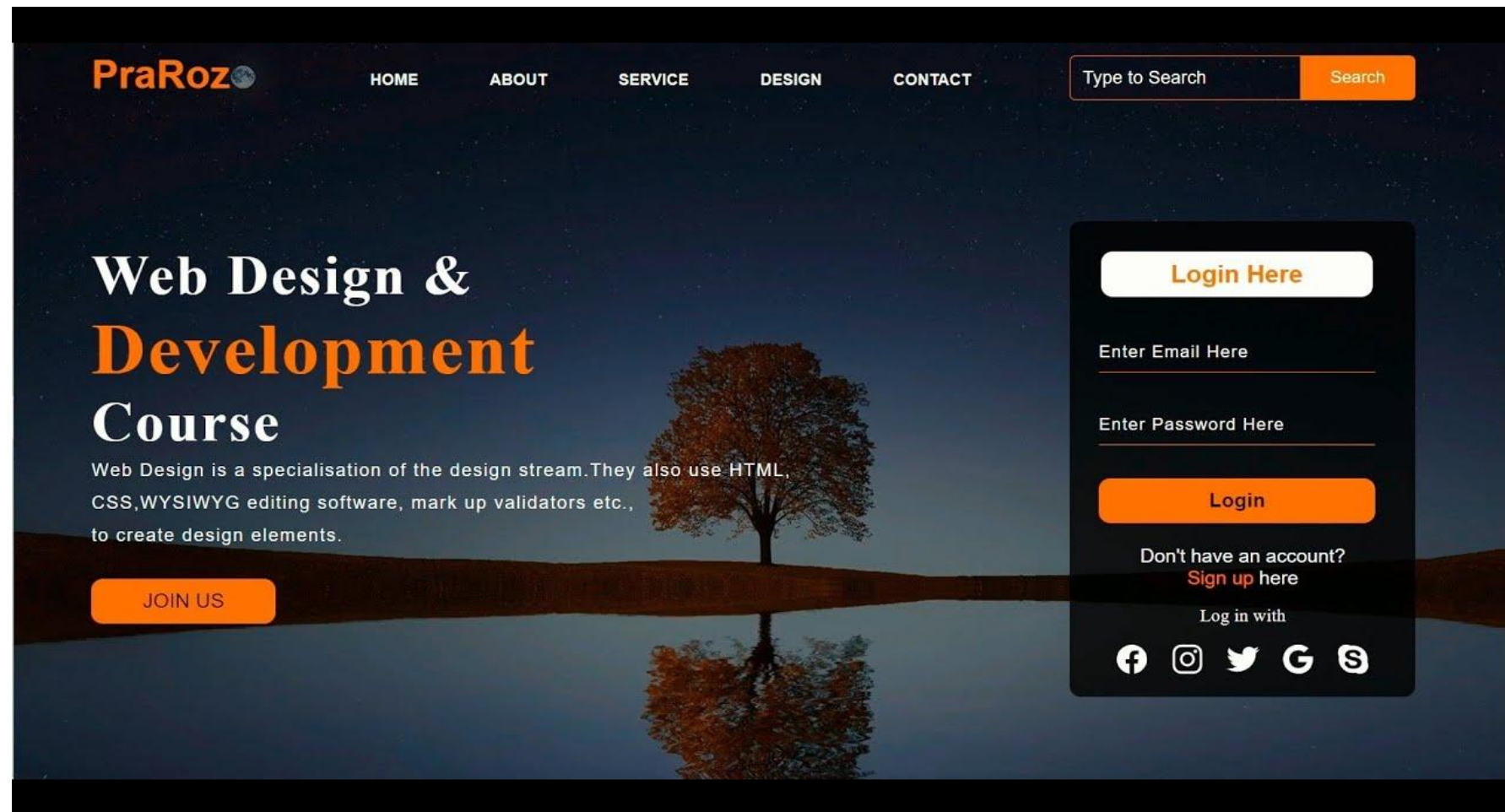
Hello World!

This is a sample CSS code.

Class Activity #: 03

- Discuss the different types of CSS used in this figure.

- Tags
- Colors
- HTML items
- Setting
- Headers
- footers



CSS Examples



CSS Coding Example- CSS Fonts, Colors, Sizes

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
  color: blue;
  font-family: verdana;
  font-size: 300%;
}
p {
  color: red;
  font-family: courier;
  font-size: 160%;
}
</style>
</head>
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

- ⌘ The CSS **color** property defines the text color to be used.
- ⌘ The CSS **font-family** property defines the font to be used.
- ⌘ The CSS **font-size** property defines the text size to be used.



This is a heading

This is a paragraph.

Output of the code

CSS Coding Example- CSS Border

- ❑ The CSS `border` property defines a border around an HTML element.
- ❑ **Tip:** You can define a border for nearly all HTML elements.

```
<!DOCTYPE html>
<html>
<head>
<style>
p {
  border: 2px solid powderblue;
}
</style>
</head>
<body>

<h1>This is a heading</h1>

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

</body>
</html>
```



Output of the code

This is a heading

This is a paragraph.

This is a paragraph.

This is a paragraph.

CSS Coding Example- CSS Padding

- The CSS `padding` property defines a padding (space) between the text and the border.

```
<!DOCTYPE html>
<html>
<head>
<style>
p {
  border: 2px solid powderblue;
  padding: 30px;
}
</style>
</head>
<body>

<h1>This is a heading</h1>

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

</body>
</html>
```



Output of the code

This is a heading

This is a paragraph.

This is a paragraph.

This is a paragraph.

CSS Coding Example- CSS Margin

- o The CSS **margin** property defines a margin (space) outside the border.

```
<!DOCTYPE html>
<html>
<head>
<style>
p {
  border: 2px solid powderblue;
  margin: 50px;
}
</style>
</head>
<body>

<h1>This is a heading</h1>

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

</body>
</html>
```



Output of the code

This is a heading

This is a paragraph.

This is a paragraph.

This is a paragraph.

CSS Addition to Text



CSS Concepts-Text-Color

The **color** property is used to set the color of the text. The color is specified by:

- a color name - like "red"
- a HEX value - like "#ff0000"
- an RGB value - like "rgb(255,0,0)"

```
#p1 {background-color: #ff0000;} /* red */  
#p2 {background-color: #00ff00;} /* green */  
#p3 {background-color: #0000ff;} /* blue */
```

(a) Define different HEX colors

```
#p1a {background-color: #ff000080;} /* red transparency */  
#p2a {background-color: #00ff0080;} /* green transparency */  
#p3a {background-color: #0000ff80;} /* blue transparency */
```

(b) Define different HEX colors with transparency.

[For more details of colors:](https://www.w3schools.com/cssref/css_colors_legal.php)

https://www.w3schools.com/cssref/css_colors_legal.php

```
#p1 {background-color: rgb(255, 0, 0);} /* red */  
#p2 {background-color: rgb(0, 255, 0);} /* green */  
#p3 {background-color: rgb(0, 0, 255);} /* blue */
```

(c) Define different RGB colors.

CSS Coding Example-Text-Color

⌘ The default text color for a page is defined in the body selector.

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
  color: blue;
}

h1 {
  color: green;
}
</style>
</head>
<body>
```

```
<h1>This is heading 1</h1>
<p>This is an ordinary paragraph. Notice that this text is blue. The default text color for a page is defined in the
body selector.</p>
<p>Another paragraph.</p>

</body>
</html>
```

Output of the code

This is heading 1

This is an ordinary paragraph. Notice that this text is blue. The default text color for a page is defined in the body selector.

Another paragraph.

CSS Coding Example-Text-Color + Background Color

⌘ In this example, we define both the `background-color` property and the `color` property.

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
  background-color: lightgrey;
  color: blue;
}

h1 {
  background-color: black;
  color: white;
}

div {
  background-color: blue;
  color: white;
}
</style>
</head>
<body>

<h1>This is a Heading</h1>
<p>This page has a grey background color and a blue text.</p>
<div>This is a div.</div>

</body>
</html>
```

Output of the code

This is a Heading

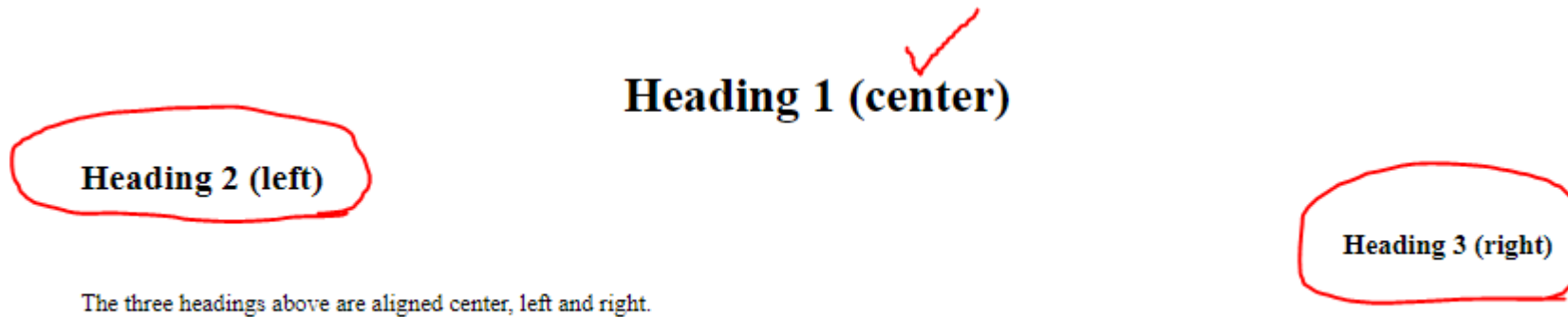
This page has a grey background color and a blue text.

This is a div.

Important: High contrast is very important for people with vision problems. So, always ensure that the contrast between the text color and the background color (or background image) is good!

CSS Concepts-Text Alignment

- ❑ The `text-align` property is used to set the horizontal alignment of a text.
- ❑ A text can be left or right aligned, centered, or justified.



- `text-align`
- `text-align-last`
- `direction`
- `unicode-bidi`
- `vertical-align`

CSS Coding Examples-Text Alignment

- ❑ The following example shows center aligned, and left and right aligned text (left alignment is default if text direction is left-to-right, and right alignment is default if text direction is right-to-left):

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
  text-align: center;
}
h2 {
  text-align: left;
}
h3 {
  text-align: right;
}
</style>
</head>
<body>

<h1>Heading 1 (center)</h1>
<h2>Heading 2 (left)</h2>
<h3>Heading 3 (right)</h3>

<p>The three headings above are aligned center, left and right.</p>

</body>
</html>
```

Output of the code

h2
Heading 2 (left)

h1
Heading 1 (center)

h3
Heading 3 (right)

The three headings above are aligned center, left and right.

CSS Coding Examples-Text Alignment (Example 2)

When the `text-align` property is set to "justify", each line is stretched so that every line has equal width, and the left and right margins are straight (like in magazines and newspapers):

```
<!DOCTYPE html>
<html>
<head>
<style>
div {
  border: 1px solid black;
  padding: 10px;
  width: 200px;
  height: 200px;
  text-align: justify;
}
</style>
</head>
<body>

<h1>Example text-align: justify</h1>

<p>The text-align: justify; value stretches the lines so that each line has equal width (like in newspapers and magazines).</p>

<div>
In my younger and more vulnerable years my father gave me some advice that I've been turning over in my mind ever since. 'Whenever you feel like criticizing anyone,' he told me, 'just remember that all the people in this world haven't had the advantages that you've had.'
</div>

</body>
</html>
```

Example text-align: justify

The text-align: justify; value stretches the lines so that each line has equal width (like in newspapers and magazines).

In my younger and more vulnerable years my father gave me some advice that I've been turning over in my mind ever since. 'Whenever you feel like criticizing anyone,' he told me, 'just remember that all the people in this world haven't had the advantages that you've had.'

Output of the code

CSS Coding Examples-Text Alignment (Last)

The `text-align-last` property specifies how to align the last line of a text.

```
<!DOCTYPE html>
<html>
<head>
<style>
p.a {
  text-align-last: right;
}

p.b {
  text-align-last: center;
}

p.c {
  text-align-last: justify;
}
</style>
</head>
<body>

<h1>The text-align-last Property</h1>

<h2>text-align-last: right:</h2>
<p class="a">Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam semper diam at erat pulvinar, at pulvinar felis blandit. Vestibulum volutpat tellus diam, consequat gravida libero rhoncus ut.</p>

<h2>text-align-last: center:</h2>
<p class="b">Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam semper diam at erat pulvinar, at pulvinar felis blandit. Vestibulum volutpat tellus diam, consequat gravida libero rhoncus ut.</p>

<h2>text-align-last: justify:</h2>
<p class="c">Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam semper diam at erat pulvinar, at pulvinar felis blandit. Vestibulum volutpat tellus diam, consequat gravida libero rhoncus ut.</p>

</body>
</html>
```

The text-align-last Property

Output of the code

text-align-last: right:

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam semper diam at erat pulvinar, at pulvinar felis blandit. Vestibulum volutpat tellus diam, consequat gravida libero rhoncus ut.

text-align-last: center:

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam semper diam at erat pulvinar, at pulvinar felis blandit. Vestibulum volutpat tellus diam, consequat gravida libero rhoncus ut.

text-align-last: justify:

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam semper diam at erat pulvinar, at pulvinar felis blandit. Vestibulum volutpat tellus diam, consequat gravida libero rhoncus ut.

CSS Coding Examples-Text Direction

The `direction` and `unicode-bidi` properties can be used to change the text direction of an element:

```
<!DOCTYPE html>
<html>
<head>
<style>
p.ex1 {
  direction: rtl;
  unicode-bidi: bidi-override;
}
</style>
</head>
<body>

<p>This is the default text direction.</p>

<p class="ex1">This is right-to-left text direction.</p>

</body>
</html>
```

Output of the code

This is the default text direction.

.noitcerid txet tfel-ot-thgir si sihT

CSS Coding Examples-Vertical Alignment

The `vertical-align` property sets the vertical alignment of an element.

```
<html>
<head>
<style>
img.a {
  vertical-align: baseline;
}

img.b {
  vertical-align: text-top;
}

img.c {
  vertical-align: text-bottom;
}

img.d {
  vertical-align: sub;
}


img.e {
  vertical-align: super;
}
</style>
</head>
<body>
```

Example


Output of the code

The vertical-align Property


vertical-align: baseline (default):

An  image with a default alignment.


vertical-align: text-top:

An  image with a text-top alignment.


vertical-align: text-bottom:

An  image with a text-bottom alignment.

vertical-align: sub:

An  image with a sub alignment.

vertical-align: sup:

An  image with a super alignment.

```
<h1>The vertical-align Property</h1>

<h2>vertical-align: baseline (default):</h2>
<p>An  image with a default alignment.</p>

<h2>vertical-align: text-top:</h2>
<p>An  image with a text-top alignment.</p>

<h2>vertical-align: text-bottom:</h2>
<p>An  image with a text-bottom alignment.</p>

<h2>vertical-align: sub:</h2>
<p>An  image with a sub alignment.</p>

<h2>vertical-align: sup:</h2>
<p>An  image with a super alignment.</p>

</body>
</html>
```

CSS Concepts-Text Alignment

The CSS Text Alignment/Direction Properties

Property	Description
<u>direction</u>	Specifies the text direction/writing direction
<u>text-align</u>	Specifies the horizontal alignment of text
<u>text-align-last</u>	Specifies how to align the last line of a text
<u>unicode-bidi</u>	Used together with the <u>direction</u> property to set or return whether the text should be overridden to support multiple languages in the same document
<u>vertical-align</u>	Sets the vertical alignment of an element

CSS Coding Example- CSS Summary

- ✗ Use the CSS `color` property for text colors
- ✗ Use the CSS `font-family` property for text fonts
- ✗ Use the CSS `font-size` property for text sizes
- ✗ Use the CSS `border` property for borders
- ✗ Use the CSS `padding` property for space inside the border
- ✗ Use the CSS `margin` property for space outside the border

Part - II

CSS Examples

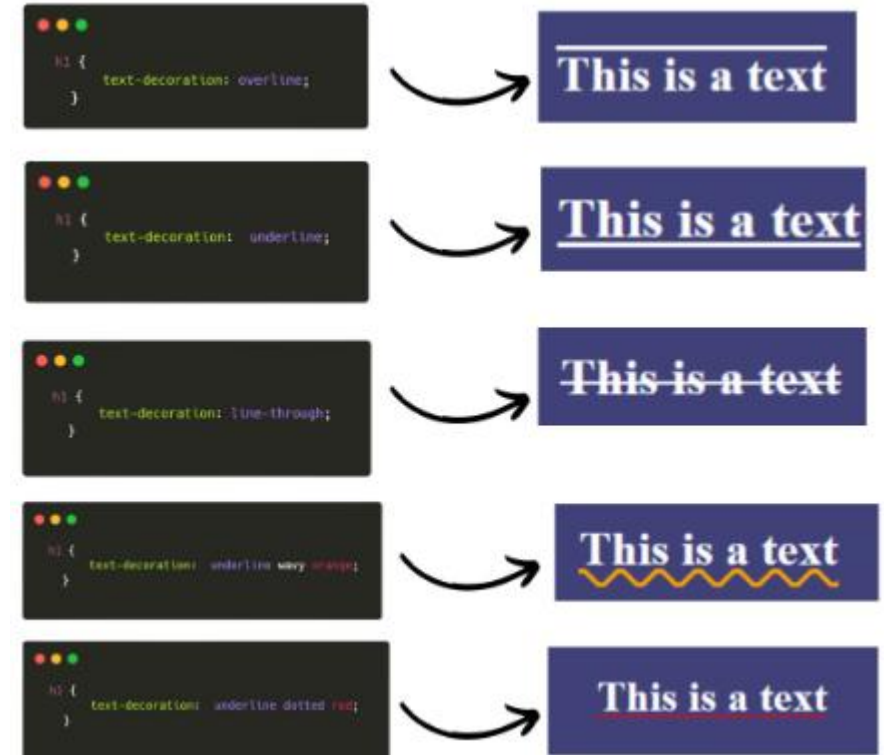


CSS Concepts-Text Decoration

⌘ The **text-decoration** shorthand CSS property sets the appearance of decorative lines on text.

⌘ It is a shorthand for

- [text-decoration-line](#)
- [text-decoration-color](#)
- [text-decoration-style](#)
- [text-decoration-thickness](#)



Useful resource



<https://developer.mozilla.org/en-US/docs/Web/CSS/text-decoration>

CSS Coding Examples-Text Decoration-Lines

- The `text-decoration-line` property is used to add a decoration line to text.
- **Tip:** You can combine more than one value, like overline and underline to display lines both over and under a text.

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
  text-decoration: overline;
}

h2 {
  text-decoration: line-through;
}

h3 {
  text-decoration: underline;
}

p.ex {
  text-decoration: overline underline;
}
</style>
</head>
<body>

<h1>Overline text decoration</h1>
<h2>Line-through text decoration</h2>
<h3>Underline text decoration</h3>
<p class="ex">Overline and underline text decoration.</p>

<p><strong>Note:</strong> It is not recommended to underline text that is not a link, as this often confuses
the reader.</p>

</body>
</html>
```



Output of the code

Overline text decoration

~~Line-through text decoration~~

Underline text decoration

Overline and underline text decoration.

Note: It is not recommended to underline text that is not a link, as this often confuses the reader.

CSS Coding Examples-Text Decoration- Colored Lines

⌘ The `text-decoration-color` property is used to set the color of the decoration line.

```
<!DOCTYPE html>
<html>
<head>
<style>
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;
}
</style>
</head>
<body>

<h1>Overline text decoration</h1>
<h2>Line-through text decoration</h2>
<h3>Underline text decoration</h3>
<p>Overline and underline text decoration.</p>

</body>
</html>
```



Output of the code

Overline text decoration

~~Line-through text decoration~~

Underline text decoration

Overline and underline text decoration.

CSS Coding Examples-Text Decoration- Styled Colored Lines

⌘ The `text-decoration-style` property is used to set the style of the decoration line.

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
  text-decoration-line: underline;
  text-decoration-style: solid; /* this is default */
}

h2 {
  text-decoration-line: underline;
  text-decoration-style: double;
}

h3 {
  text-decoration-line: underline;
  text-decoration-style: dotted;
}

p.ex1 {
  text-decoration-line: underline;
  text-decoration-style: dashed;
}

p.ex2 {
  text-decoration-line: underline;
  text-decoration-style: wavy;
}

p.ex3 {
  text-decoration-line: underline;
  text-decoration-color: red;
  text-decoration-style: wavy;
}
</style>
</head>
<body>

<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<p class="ex1">A paragraph.</p>
<p class="ex2">Another paragraph.</p>
<p class="ex3">Another paragraph.</p>

</body>
</html>
```



Output of the code

Heading 1

Heading 2

Heading 3

A paragraph.

Another paragraph.

Another paragraph.

CSS Coding Examples-Text Decoration- Thicked Styled Colored Lines

⌘ The `text-decoration-thickness` property is used to set the thickness of the decoration line.

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
  text-decoration-line: underline;
  text-decoration-thickness: auto; /* this is default */
}

h2 {
  text-decoration-line: underline;
  text-decoration-thickness: 5px;
}

h3 {
  text-decoration-line: underline;
  text-decoration-thickness: 25%;
}

p {
  text-decoration-line: underline;
  text-decoration-color: red;
  text-decoration-style: double;
  text-decoration-thickness: 5px;
}
</style>
</head>
<body>

<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<p>A paragraph.</p>

</body>
</html>
```


Output of the code

Heading 1

Heading 2

Heading 3

A paragraph.



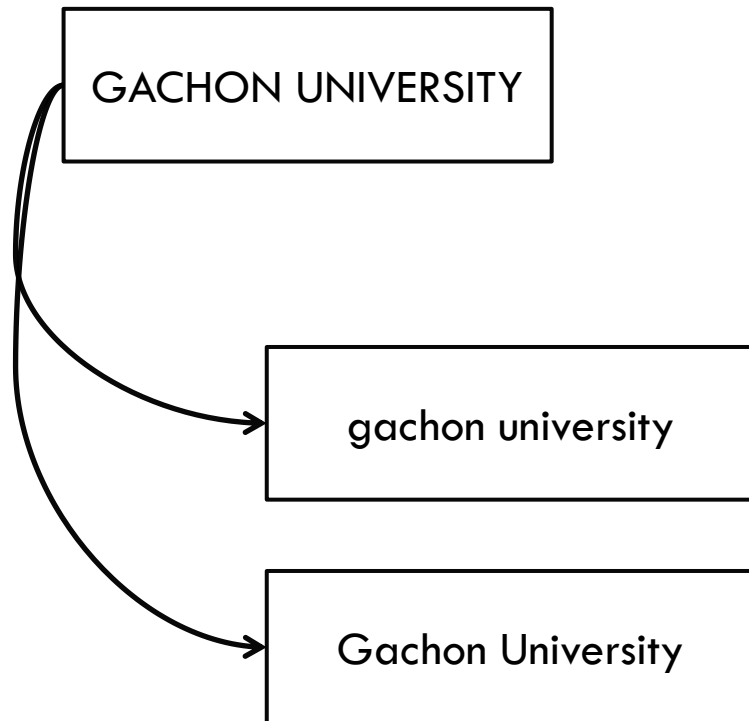
All links in HTML are underlined by default. Sometimes you see that links are styled with no underline. The **text-decoration: none;** is used to remove the underline from links.

CSS Concepts-Text Decoration

All CSS text-decoration Properties

Property	Description
<u>text-decoration</u>	Sets all the text-decoration properties in one declaration
<u>text-decoration-color</u>	Specifies the color of the text-decoration
<u>text-decoration-line</u>	Specifies the kind of text decoration to be used (underline, overline, etc.)
<u>text-decoration-style</u>	Specifies the style of the text decoration (solid, dotted, etc.)
<u>text-decoration-thickness</u>	Specifies the thickness of the text decoration line

CSS Concepts-Text Transformation



text-transform : none

The quick brown fox jumps over the lazy dog.

text-transform : capitalize

The Quick Brown Fox Jumps Over The Lazy Dog.

text-transform : uppercase

THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG.

text-transform : lowercase

the quick brown fox jumps over the lazy dog.

CSS Coding Examples-Text Transformation

- The `text-transform` property is used to specify uppercase and lowercase letters in a text.
- It can be used to turn everything into uppercase or lowercase letters, or capitalize the first letter of each word:

```
<!DOCTYPE html>
<html>
<head>
<style>
p.uppercase {
  text-transform: uppercase;
}

p.lowercase {
  text-transform: lowercase;
}

p.capitalize {
  text-transform: capitalize;
}
</style>
</head>
<body>

<h1>Using the text-transform property</h1>

<p class="uppercase">This text is transformed to uppercase.</p>
<p class="lowercase">This text is transformed to lowercase.</p>
<p class="capitalize">This text is capitalized.</p>

</body>
</html>
```

Output of the code

Using the text-transform property

THIS TEXT IS TRANSFORMED TO UPPERCASE.

this text is transformed to lowercase.

This Text Is Capitalized.

The CSS Text Transformation Property

Property	Description
<u>text-transform</u>	Controls the capitalization of text

CSS Concepts-Text Spacing

In this part you will learn about the following properties:

- text-indent
- letter-spacing
- line-height
- word-spacing
- white-space

CSS Coding Examples-Text Spacing-Indentation

⌘ The `text-indent` property is used to specify the indentation of the first line of a text.

```
<!DOCTYPE html>
<html>
<head>
<style>
p {
  text-indent: 50px;
}
</style>
</head>
<body>

<h1>Using text-indent</h1>

<p>In my younger and more vulnerable years my father gave me some advice that I've been turning over in my mind ever since.
'Whenever you feel like criticizing anyone,' he told me, 'just remember that all the people in this world haven't had the
advantages that you've had.'</p>

</body>
</html>
```



Output of the code

Using text-indent

In my younger and more vulnerable years my father gave me some advice that I've been turning over in my mind ever since. 'Whenever you feel like criticizing anyone,' he told me, 'just remember that all the people in this world haven't had the advantages that you've had.'

CSS Coding Examples-Text Spacing-Letter Spacing

- ⌘ The `letter-spacing` property is used to specify the space between the characters in a text.
- ⌘ The following example demonstrates how to increase or decrease the space between characters.

```
<!DOCTYPE html>
<html>
<head>
<style>
h2 {
  letter-spacing: 5px;
}
h3 {
  letter-spacing: -2px;
}
</style>
</head>
<body>

<h1>Using letter-spacing</h1>

<h2>This is heading 1</h2>
<h3>This is heading 2</h3>

</body>
</html>
```

Output of the code

Using letter-spacing

This is heading 1

This is heading2

CSS Coding Examples-Text Spacing-Line Height

⌘ The **line-height** property is used to specify the space between lines.

```
<!DOCTYPE html>
<html>
<head>
<style>
p.small {
  line-height: 0.7;
}

p.big {
  line-height: 1.8;
}
</style>
</head>
<body>

<h1>Using line-height</h1>

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

<p class="small">
This is a paragraph with a smaller line-height.<br>
This is a paragraph with a smaller line-height.<br>
</p>

<p class="big">
This is a paragraph with a bigger line-height.<br>
This is a paragraph with a bigger line-height.<br>
</p>

</body>
</html>
```

Output of the code

Using line-height

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

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

CSS Coding Examples-Text Spacing-Word Spacing

- ⌘ The **word-spacing** property is used to specify the space between the words in a text.
- ⌘ The following example demonstrates how to increase or decrease the space between words:

```
<!DOCTYPE html>
<html>
<head>
<style>
p.one {
  word-spacing: 10px;
}

p.two {
  word-spacing: -2px;
}
</style>
</head>
<body>

<h1>Using word-spacing</h1>

<p>This is a paragraph with normal word spacing.</p>

<p class="one">This is a paragraph with larger word spacing.</p>

<p class="two">This is a paragraph with smaller word spacing.</p>

</body>
</html>
```



Output of the code

Using word-spacing

This is a paragraph with normal word spacing.

This is a paragraph with larger word spacing.

This is a paragraph with smaller word spacing.

CSS Coding Examples-White Space

- ⌘ The `white-space` property specifies how white-space inside an element is handled.
- ⌘ This example demonstrates how to disable text wrapping inside an element:

```
<!DOCTYPE html>
<html>
<head>
<style>
p {
  white-space: nowrap;
}
</style>
</head>
<body>

<h1>Using white-space</h1>

<p>
This is some text that will not wrap.
This is some text that will not wrap.
This is some text that will not wrap.
This is some text that will not wrap.
This is some text that will not wrap.
This is some text that will not wrap.
This is some text that will not wrap.
This is some text that will not wrap.
This is some text that will not wrap.
</p>

<p>Try to remove the white-space property to see the difference!</p>

</body>
</html>
```

Output of the code

Using white-space

This is some text that will not wrap. This is some text that will not wrap. This is some text that will not wrap. This is some text that will not wrap. This is some text that will not wrap. This is some text that will not wrap. This is some text that will not wrap. This is some text that will not wrap. This is some text that will not wrap.

Try to remove the white-space property to see the difference!

CSS Concepts-Text Spacing

The CSS Text Spacing Properties

Property	Description
<u>letter-spacing</u>	Specifies the space between characters in a text
<u>line-height</u>	Specifies the line height
<u>text-indent</u>	Specifies the indentation of the first line in a text-block
<u>white-space</u>	Specifies how to handle white-space inside an element
<u>word-spacing</u>	Specifies the space between words in a text

CSS Concepts-Text Shadow

⌘ The `text-shadow` property adds shadow to text.

Text shadow effect!

Example

```
h1 {  
  text-shadow: 2px 2px;  
}
```

Try it Yourself >

Next, add a color (red) to the shadow:

Text shadow effect!

Example

```
h1 {  
  text-shadow: 2px 2px red;  
}
```

Try it Yourself >

Then, add a blur effect (5px) to the shadow:

Text shadow effect!

Example

```
h1 {  
  text-shadow: 2px 2px 5px red;  
}
```

Output of the code

Summary of CSS



CSS Concepts- CSS Summary

- ✗ Use the HTML `style` attribute for inline styling
- ✗ Use the HTML `<style>` element to define internal CSS
- ✗ Use the HTML `<link>` element to refer to an external CSS file
- ✗ Use the HTML `<head>` element to store `<style>` and `<link>` elements
- ✗ Use the CSS `color` property for text colors
- ✗ Use the CSS `font-family` property for text fonts
- ✗ Use the CSS `font-size` property for text sizes
- ✗ Use the CSS `border` property for borders
- ✗ Use the CSS `padding` property for space inside the border
- ✗ Use the CSS `margin` property for space outside the border

HTML Tables

A test table with merged cells

	Average		Red eyes
	height	weight	
Males	1.9	0.003	40%
Females	1.7	0.002	43%

HTML Concepts-Tables

- ⌘ The HTML tables allow web authors to arrange data like text, images, links, other tables, etc. into rows and columns of cells.
- ⌘ The HTML tables are created using the `<table>` tag in which the `<tr>` tag is used to create table rows and `<td>` tag is used to create data cells. The elements under `<td>` are regular and left aligned by default

Person	Age
Chris	38
Dennis	45
Sarah	29
Karen	47

Q: How many rows and columns are in the above table?
What is the dimension of the above table?

HTML Coding Examples- Simple Table

- ⌘ The HTML tables allow web authors to arrange data like text, images, links, other tables, etc. into rows and columns of cells.

```
<!DOCTYPE html>
<html>

  <head>
    <title>HTML Tables</title>
  </head>

  <body>
    <table border = "1">
      <tr>
        <td>Row 1, Column 1</td>
        <td>Row 1, Column 2</td>
      </tr>

      <tr>
        <td>Row 2, Column 1</td>
        <td>Row 2, Column 2</td>
      </tr>
    </table>

  </body>
</html>
```

→ Output of the code

This will produce the following result –

Row 1, Column 1	Row 1, Column 2
Row 2, Column 1	Row 2, Column 2

Here, the **border** is an attribute of `<table>` tag and it is used to put a border across all the cells. If you do not need a border, then you can use `border = "0"`.

HTML Coding Examples- Simple Table with Heading

- ⌘ Table heading can be defined using `<th>` tag. This tag will be put to replace `<td>` tag, which is used to represent actual data cell. Normally you will put your top row as table heading as shown below, otherwise you can use `<th>` element in any row. Headings, which are defined in `<th>` tag are centered and bold by default.

```
<html>

  <head>
    <title>HTML Table Header</title>
  </head>

  <body>
    <table border = "1">
      <tr>
        <th>Name</th>
        <th>Salary</th>
      </tr>
      <tr>
        <td>Ramesh Raman</td>
        <td>5000</td>
      </tr>

      <tr>
        <td>Shabbir Hussein</td>
        <td>7000</td>
      </tr>
    </table>
  </body>
</html>
```



Output of the code

This will produce the following result –

Name	Salary
Ramesh Raman	5000
Shabbir Hussein	7000

HTML Coding Examples- Simple Table with Cell-padding and Cell-spacing Attributes

- ⌘ There are two attributes called cellpadding and cellspacing which you will use to adjust the white space in your table cells. The cellspacing attribute defines space between table cells, while cellpadding represents the distance between cell borders and the content within a cell.

```
<html>

  <head>
    <title>HTML Table Cellpadding</title>
  </head>

  <body>
    <table border = "1" cellpadding = "5" cellspacing = "5">
      <tr>
        <th>Name</th>
        <th>Salary</th>
      </tr>
      <tr>
        <td>Ramesh Raman</td>
        <td>5000</td>
      </tr>
      <tr>
        <td>Shabbir Hussein</td>
        <td>7000</td>
      </tr>
    </table>
  </body>
</html>
```

Output of the code

This will produce the following result –

Name	Salary
Ramesh Raman	5000
Shabbir Hussein	7000

HTML Coding Examples- Simple Table with Col-span and Row-span Attributes

- ⌘ You will use colspan attribute if you want to merge two or more columns into a single column. Similar way you will use rowspan if you want to merge two or more rows.

```
<html>

<head>
  <title>HTML Table Colspan/Rowspan</title>
</head>

<body>
  <table border = "1">
    <tr>
      <th>Column 1</th>
      <th>Column 2</th>
      <th>Column 3</th>
    </tr>
    <tr>
      <td rowspan = "2">Row 1 Cell 1</td>
      <td>Row 1 Cell 2</td>
      <td>Row 1 Cell 3</td>
    </tr>
    <tr>
      <td>Row 2 Cell 2</td>
      <td>Row 2 Cell 3</td>
    </tr>
    <tr>
      <td colspan = "3">Row 3 Cell 1</td>
    </tr>
  </table>
</body>

</html>
```

→ Output of the code

This will produce the following result –

Column 1	Column 2	Column 3
Row 1 Cell 1	Row 1 Cell 2	Row 1 Cell 3
	Row 2 Cell 2	Row 2 Cell 3
Row 3 Cell 1		

HTML Coding Examples- Simple Table with Backgrounds

You can set table background using one of the following two ways –

- **bgcolor** attribute – You can set background color for whole table or just for one cell.
- **background** attribute – You can set background image for whole table or just for one cell.

Column 1	Column 2	Column 3
Row 1 Cell 1	Row 1 Cell 2	Row 1 Cell 3
	Row 2 Cell 2	Row 2 Cell 3
Row 3 Cell 1		

HTML Coding Examples- Simple Table with Backgrounds

```
<html>

<head>
  <title>HTML Table Background</title>
</head>

<body>
  <table border = "1" bordercolor = "green" bgcolor = "yellow">
    <tr>
      <th>Column 1</th>
      <th>Column 2</th>
      <th>Column 3</th>
    </tr>
    <tr>
      <td rowspan = "2">Row 1 Cell 1</td>
      <td>Row 1 Cell 2</td>
      <td>Row 1 Cell 3</td>
    </tr>
    <tr>
      <td>Row 2 Cell 2</td>
      <td>Row 2 Cell 3</td>
    </tr>
    <tr>
      <td colspan = "3">Row 3 Cell 1</td>
    </tr>
  </table>
</body>
```

Output of the code

This will produce the following result –

Column 1	Column 2	Column 3
Row 1 Cell 1	Row 1 Cell 2	Row 1 Cell 3
	Row 2 Cell 2	Row 2 Cell 3
Row 3 Cell 1		

HTML Coding Examples- Simple Table with Backgrounds (Images)

```
<html>

<head>
  <title>HTML Table Background</title>
</head>

<body>
  <table border = "1" bordercolor = "green" background = "/images/test.png">
    <tr>
      <th>Column 1</th>
      <th>Column 2</th>
      <th>Column 3</th>
    </tr>
    <tr>
      <td rowspan = "2">Row 1 Cell 1</td>
      <td>Row 1 Cell 2</td><td>Row 1 Cell 3</td>
    </tr>
    <tr>
      <td>Row 2 Cell 2</td>
      <td>Row 2 Cell 3</td>
    </tr>
    <tr>
      <td colspan = "3">Row 3 Cell 1</td>
    </tr>
  </table>
</body>

</html>
```



Output of the code

This will produce the following result. Here background image did not apply to table's header.

Column 1	Column 2	Column 3
Row 1 Cell 1	Row 1 Cell 2	Row 1 Cell 3
	Row 2 Cell 2	Row 2 Cell 3
Row 3 Cell 1		

HTML Coding Examples- Simple Table with Height & Width

- ⌘ You can set a table width and height using width and height attributes. You can specify table width or height in terms of pixels or in terms of percentage of available screen area.

```
<html>

<head>
  <title>HTML Table Width/Height</title>
</head>

<body>
  <table border = "1" width = "400" height = "150">
    <tr>
      <td>Row 1, Column 1</td>
      <td>Row 1, Column 2</td>
    </tr>

    <tr>
      <td>Row 2, Column 1</td>
      <td>Row 2, Column 2</td>
    </tr>
  </table>
</body>

</html>
```

Output of the code

This will produce the following result –

Row 1, Column 1	Row 1, Column 2
Row 2, Column 1	Row 2, Column 2

HTML Coding Examples- Simple Table with Caption

- ⌘ The caption tag will serve as a title or explanation for the table and it shows up at the top of the table. This tag is deprecated in newer version of HTML/XHTML.

```
<html>

<head>
  <title>HTML Table Caption</title>
</head>

<body>
  <table border = "1" width = "100%">
    <caption>This is the caption</caption>

    <tr>
      <td>row 1, column 1</td><td>row 1, columnn 2</td>
    </tr>

    <tr>
      <td>row 2, column 1</td><td>row 2, columnn 2</td>
    </tr>
  </table>
</body>

</html>
```



Output of the code

This is the caption	
row 1, column 1	row 1, column 2
row 2, column 1	row 2, column 2

HTML Coding Examples- Simple Table with Header, Body, and Footer

- ⌘ Tables can be divided into three portions — a header, a body, and a foot.
- ⌘ The head and foot are rather similar to headers and footers in a word-processed document that remain the same for every page, while the body is the main content holder of the table.

The three elements for separating the head, body, and foot of a table are –

- **<thead>** – to create a separate table header.
- **<tbody>** – to indicate the main body of the table.
- **<tfoot>** – to create a separate table footer.

A table may contain several `<tbody>` elements to indicate different pages or groups of data. But it is notable that `<thead>` and `<tfoot>` tags should appear before `<tbody>`

– .

HTML Coding Examples- Simple Table with Header, Body, and Footer

```
<html>
<head>
  <title>HTML Table</title>
</head>

<body>
  <table border = "1" width = "100%">
    <thead>
      <tr>
        <td colspan = "4">This is the head of the table</td>
      </tr>
    </thead>

    <tfoot>
      <tr>
        <td colspan = "4">This is the foot of the table</td>
      </tr>
    </tfoot>
    <tbody>
      <tr>
        <td>Cell 1</td>
        <td>Cell 2</td>
        <td>Cell 3</td>
        <td>Cell 4</td>
      </tr>
    </tbody>
  </table>
</body>
</html>
```

This will produce the following result –

→ Output of the code

This is the head of the table			
Cell 1	Cell 2	Cell 3	Cell 4
This is the foot of the table			

HTML Coding Examples- Nested Tables

⌘ You can use one table inside another table. Not only tables you can use almost all the tags inside table data tag <td>.

```
<html>
<head>
  <title>HTML Table</title>
</head>

<body>
  <table border = "1" width = "100%">
    <tr>
      <td>
        <table border = "1" width = "100%">
          <tr>
            <th>Name</th>
            <th>Salary</th>
          </tr>
          <tr>
            <td>Ramesh Raman</td>
            <td>5000</td>
          </tr>
          <tr>
            <td>Shabbir Hussein</td>
            <td>7000</td>
          </tr>
        </table>
      </td>
    </tr>
  </table>
</body>
</html>
```

→ This will produce the following result -

Name	Salary
Ramesh Raman	5000
Shabbir Hussein	7000

Output of the code

Summary of the Today's Lesson

Part I

- CSS Application to Text
 - ▣ Color
 - ▣ Alignment
 - ▣ Decoration
 - ▣ Spacing
 - ▣ Shadow
- CSS Application to Text
(Remaining part from Lec. 03)
 - ▣ Decoration
 - ▣ Spacing
 - ▣ Shadow

Part II

□ HTML Tables

- Simple
- Sizes
- Borders
- Spans
- Headers
- Etc.

CSS introduction on Tables

- Border
- Size
- Alignment
- Styles
- Etc.

Next
class



Part III

Note: Please execute all codes at least once on your computers.