



in collaboration with



Laxmi Timsina

Student ID: 200400

Department of Cyber Security and Ethical Hacking

Softwarica College of IT and E-commerce

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Softwarica College of IT and E-commerce

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Typography:

How can you change the font family of a specific section of text on a web page using CSS? Can you give an example of how font size can be used to create a more readable and engaging paragraph of text?

ANS: -

- ➔ To change the font family of a specific section of text on a web page using CSS, you can use the font-family property. Here's an example:

HTML:

```
<p class="custom-font">This is a paragraph with a custom font. </p>
```

CSS:

```
. custom-font {font-family: "Arial", sans-serif;}
```

In this example, the paragraph with the class "custom-font" will have the font family set to "Arial", and if Arial is not available, it will fall back to a sans-serif font.

- ➔ Regarding using font size to create a more readable and engaging paragraph of text, here's an example:

CSS:

```
. readable-paragraph {font-size: 18px; line-height: 1.5; letter-spacing: 0.5px;}
```

In this example, the font-size property is set to 18 pixels, which can be adjusted based on your preference or design requirements. Increasing the font size can improve readability, especially on devices with smaller screens or for visually impaired users. The line height property determines the spacing between lines of text. A value of 1.5 provides sufficient breathing room between lines, making the text easier to read. The letter-spacing property adds a small amount of space between individual characters, improving legibility, especially for smaller font sizes. By combining these properties, you can create a more readable and visually appealing paragraph of text on your web page. Remember to adjust the values to suit your specific design and content requirements.

How can you change the font-family of a specific section of text on a web page using CSS?

ANS: To change the font family of a specific section of text on a web page using CSS, you can use the font-family property. Here's an example:

HTML:

```
<p class="custom-font">This is a paragraph with a custom font. </p>
```

CSS:

```
. custom-font {  
font-family: "Arial", sans-serif;  
  
}
```

In this example, the paragraph with the class "custom-font" will have the font family set to "Arial", and if Arial is not available, it will fall back to a sans-serif font. You can specify multiple font families as a fallback in case the desired font is not available on the user's device. The browser will attempt to use the first font family in the list, and if it's not available, it will move to the next one in the list. You can also use other font formats such as web fonts or local fonts. Web fonts are downloaded from the web and can be specified using the @font-face rule, while local fonts are installed on the user's device. Here's an example of using a web font:

CSS:

```
@font-face {  
font-family: "CustomFont";  
src: url("custom-font.woff2") format("woff2"),  
      url("custom-font.woff") format("woff");  
}  
  
.custom-font {  
font-family: "CustomFont", sans-serif; }
```

In this example, the @font-face rule is used to define a custom font named "CustomFont" and specify its source URLs using the src property. The font files are provided in the WOFF2 and WOFF formats. Then, the .custom-font class is applied to the desired HTML element, and the font-family property is set to "CustomFont" as the primary font family, followed by a fallback of sans-serif. By using the font-family property and specifying the desired font or font families, you

can change the font of a specific section of text on a web page and achieve the desired typography effect.

Can you give an example of how font-size can be used to create a more readable and engaging paragraph of text?

ANS: Font size plays a crucial role in enhancing readability and engagement of a paragraph of text. Here's an example of how font-size can be used to create a more readable and engaging paragraph:

CSS:

```
.readable-paragraph {  
font-size: 18px;  
line-height: 1.5;  
letter-spacing: 0.5px;  
}
```

In this example, the `.readable-paragraph` class is applied to the paragraph element that you want to style. Let's break down the properties and their effects:

font-size: 18px; The font-size property sets the size of the font. In this case, it's set to 18 pixels, which can be adjusted based on your preference or design requirements. Increasing the font size can improve readability, especially on devices with smaller screens or for visually impaired users.

line-height: 1.5; The line-height property determines the spacing between lines of text. In this example, a value of 1.5 is used. This provides sufficient breathing room between lines, making the text easier to read. Adequate line height helps prevent the text from appearing cramped or crowded.

letter-spacing: 0.5px; The letter-spacing property adds a small amount of space between individual characters. This can improve legibility, especially for smaller font sizes. In this case, 0.5 pixels of spacing is applied, but you can adjust the value as needed.

By combining these properties, you can create a more readable and visually appealing paragraph of text on your web page. Adjusting the font size, line height, and letter spacing to optimal values can significantly improve the readability and engagement of your content, making it more pleasant for users to consume.

How can you use font-weight to make specific words or phrases in a sentence stand out?

ANS: To make specific words or phrases in a sentence stand out using CSS, you can utilize the font-weight property. This property allows you to adjust the thickness or boldness of the text. Here's an example:

HTML:

```
<p>This is a <span class="highlight">highlighted</span> word. </p>
```

CSS:

```
. highlight {font-weight: bold; }
```

In this example, a `` element with the class "highlight" is used to enclose the word or phrase you want to emphasize. Then, in the CSS code, the font-weight property is set to "bold" for the elements with the "highlight" class. This will make the enclosed word or phrase appear in a bold font weight, making it stand out from the rest of the text. You can adjust the font-weight property to other values like "bolder" or use numeric values like 500 or 700 to achieve different levels of boldness. By selectively applying the font-weight property to specific words or phrases using HTML elements or CSS classes, you can effectively draw attention to them and make them stand out within a sentence or paragraph.

What is the difference between using italics and the font-style property to style text in CSS?

ANS: In CSS, both italics and the font-style property can be used to style text, but they have some differences in terms of their usage and flexibility.

Italics:

Italics are primarily used to emphasize or highlight specific text within a paragraph or sentence. It is typically used for emphasis rather than overall styling. The `<i>` element or `` element (which represents emphasis) can be used in HTML to mark text as italicized. In CSS, the font-style: italic; declaration is used to render text in italics. It applies the italics style to the specified element and its children. Italics are usually applied to individual elements or specific spans of text within a larger block of content.

font-style property:

The font-style property is a more general way of controlling the style of text, allowing you to specify different values such as normal, italic, oblique, or inherit.

It can be used to change the overall style of text within an element, affecting all the text within that element and its children. By setting font-style: italic;, you can apply the italics style to an element and its descendants. The font-style property can also accept values like normal (default style), oblique (produces a slanted appearance similar to italics), or inherit (inherits the style from its parent element).

In summary, while italics are more commonly used for emphasis within a text, the font-style property provides greater flexibility to control the style of text in general, allowing you to choose from multiple styles beyond italics.

How can you use text-align to center a paragraph of text on a web page?

ANS: To center a paragraph of text on a web page using the text-align property in CSS, you can follow these steps:

Create a CSS selector for the paragraph element you want to center. For example, if you have a <p> element with a class of "centered", you can use the selector. centered. Apply the text-align: center; declaration to the selector you created. This property aligns the content of the element horizontally within its container.

Here's an example of how you can center a paragraph using the text-align property in CSS:

```
.centered {  
  text-align: center;  
}
```

Then, in your HTML, you can apply the CSS class to the <p> element like this:

```
<p class="centered">This is a centered paragraph.</p>
```

By setting text-align: center; the paragraph text will be horizontally centered within its container or parent element.

Note: The text-align property affects only the horizontal alignment of text. If you also want to vertically center the paragraph within its container, you will need to use additional CSS techniques, such as Flexbox or CSS Grid.

Colors:

How can you change the color of the text in a specific HTML element using CSS?

Can you give an example of how background color can be used to create a visually appealing website?

How can you use the opacity property to create a semi-transparent background for an HTML element?

ANS: -

To change the color of the text in a specific HTML element using CSS, you can use the color property.

➔ Here's an example:

HTML:

```
<h1 class="custom-color">This is a heading with custom color</h1>
```

CSS:

```
. custom-color
```

```
{color: blue; }
```

In this example, the heading with the class "custom-color" will have its text color set to blue.

Now, let's move on to using the background-color property to create a visually appealing website. Here's an example:

CSS:

```
body {
```

```
background-color: #f1f1f1;
```

```
}
```

```
.container {
```

```
background-color: #ffffff;
```

```
padding: 20px;
```

```
border-radius: 10px;
```

```
box-shadow: 0 0 10px rgba(0, 0, 0, 0.1); }
```


In this example, the background-color property is used to define the background color of the entire webpage (body element) as a light gray (#f1f1f1). This can provide a pleasant and neutral backdrop for the content.

The .container class represents a specific element, such as a div, that contains a section of content. It has a white background color (#ffffff), which creates a visually distinct section on the page. The padding property adds some space around the content within the container, while the border-radius property rounds the corners of the container element. The box-shadow property adds a subtle shadow effect around the container, making it visually appealing and providing depth.

➔ Finally, let's explore how to use the opacity property to create a semi-transparent background for an HTML element. Here's an example:

CSS:

```
.transparent-element { background-color: rgba(255, 0, 0, 0.5); }
```

In this example, the background-color property is set to rgba(255, 0, 0, 0.5). The rgba function allows specifying a color using red, green, blue (RGB) values, along with an alpha value for transparency. In this case, the color is red (255, 0, 0), and the alpha value is 0.5, indicating 50% transparency. This will create a semi-transparent red background for the HTML element with the class "transparent-element". The lower the alpha value, the more transparent the background becomes.

```
body { background-color: #f1f1f1; } .container { background-color: #ffffff; padding: 20px; border-radius: 10px; box-shadow: 0 0 10px rgba(0, 0, 0, 0.1); }
```

In this example, we'll use the background-color property to create an appealing website layout:

body: The background-color property is applied to the body element, which sets the background color of the entire webpage. In this case, it's set to #f1f1f1, a light gray color. This provides a pleasant and neutral backdrop for the content.

.container: The .container class represents a specific element, such as a div, that contains a section of content on the webpage. It has a white background color (#ffffff), which creates a visually distinct section. The padding property adds some space around the content within the container, ensuring it's not crowded against the edges. The border-radius property rounds the corners of the container, giving it a softer and more visually appealing appearance. Finally, the box-shadow property adds a subtle shadow effect around the container, providing depth and making it visually appealing.

By combining the background-color property with other CSS properties like padding, border-radius, and box-shadow, you can create visually appealing website layouts that enhance the overall aesthetics and user experience. These properties allow you to define the background color, spacing, shape, and depth of different sections, resulting in an engaging and visually pleasing design. Remember to adjust the values to suit your specific design requirements and preferences.

How can you use the opacity property to create a semi-transparent background for an HTML element?

ANS: You can use the: hover pseudo-class in CSS to change the color of a button when a user hovers over it. Here's an example:

HTML:

```
<button class="hover-button">Hover Me</button>
```

CSS:

```
.hover-button {  
background-color: blue;  
color: white;  
padding: 10px 20px;  
border: none;  
cursor: pointer;  
}
```

```
.hover-button:hover {  
background-color: red;  
}
```

In this example, the .hover-button class is applied to the button element. Initially, it has a blue background color and white text color. The :hover pseudo-class is then used to target the button when the user hovers over it. In the .hover-button: hover selector, we set the background-color property to red. This means that when the user hovers over the button, its background color will change to red, creating a visual feedback effect. You can adjust the color to your preference.

Additionally, you can add other CSS properties to the :hover selector to modify other visual aspects of the button, such as changing the text color, adding a border, or applying a different box-shadow.

By utilizing the: hover pseudo-class, you can easily enhance the interactivity and visual feedback of buttons or any other elements on your web page when users hover over them.

GRADIENT

How can you create a linear gradient that goes from top to bottom using CSS?

ANS:

To create a linear gradient that goes from top to bottom using CSS, you can utilize the `linear-gradient()` function. Here's an example:

CSS:

```
.gradient-element { background-image: linear-gradient(to bottom, #ff0000, #0000ff); }
```

In this example, the `.gradient-element` class is applied to the HTML element you want to style with a linear gradient background.

The `background-image` property is set to `linear-gradient()`, which defines the gradient. Inside the parentheses, we specify the direction of the gradient using the `to bottom` keyword. This means the gradient will start at the top of the element and transition to the bottom.

The colors in the gradient are defined using color values. In this case, `#ff0000` represents red, and `#0000ff` represents blue. You can specify more colors by adding additional color values between the parentheses, separated by commas.

You can also control the position and spread of the gradient by adding additional parameters to the `linear-gradient()` function. For example, you can specify specific color stop positions or use keywords like `top`, `bottom`, `left`, and `right` to set the starting and ending points of the gradient.

By using the `linear-gradient()` function with the `background-image` property, you can create visually appealing gradients that transition smoothly from top to bottom or in other specified directions.

How can you create a radial gradient that has a specific shape using CSS?

ANS:

To create a radial gradient with a specific shape using CSS, you can use the `radial-gradient()` function. Here's an example:

CSS:

```
.gradient-element {  
  background-image: radial-gradient(circle at center, #ff0000, #0000ff); }
```

In this example, the `gradient-element` class is applied to the HTML element you want to style with a radial gradient background.

The `background-image` property is set to `radial-gradient()`, which defines the radial gradient. Inside the parentheses, we specify the shape and position of the gradient using the `circle at center` notation. This means the gradient will have a circular shape and will be centered within the element.

The colors in the gradient are defined using color values. In this case, `#ff0000` represents red, and `#0000ff` represents blue. You can specify more colors by adding additional color values between the parentheses, separated by commas. You can further customize the shape of the radial gradient by adjusting the size, position, and shape keywords within the `radial-gradient()` function. For example, you can use `ellipse` instead of `circle` to create an elliptical shape. Additionally, you can use specific measurements, percentages, or keywords like `closest-side`, `farthest-side`, `closest-corner`, and `farthest-corner` to control the size and position of the gradient. By using the `radial-gradient()` function with the `background-image` property, you can create radial gradients with various shapes and positions, allowing you to achieve the desired visual effect on your web page.

TRANSITION

How can you use transition-property and transition-duration to create a smooth animation when a user hovers over a button?

ANS:

To create a smooth animation when a user hovers over a button using CSS, you can use the transition-property and transition-duration properties. Here's an example:

HTML:

```
<button class="hover-button">Hover Me</button>
```

CSS:

```
.hover-button {  
  background-color: blue;  
  color: white;  
  padding: 10px 20px;  
  border: none;  
  cursor: pointer;  
  transition-property: background-color, color;  
  transition-duration: 0.3s; }  
  
.hover-button:hover {  
  background-color: red; color: yellow; }
```

In this example, the .hover-button class is applied to the button element. Initially, it has a blue background color and white text color. The transition-property property is used to specify which CSS properties should be transitioned. In this case, we want to transition the background-color and color properties. The transition-duration property is used to set the duration of the transition. In this example, it's set to 0.3s, meaning the transition will take 0.3 seconds to complete. You can adjust the duration to your preference. When the user hovers over the button, the .hover-button:hover selector is triggered, and the background color changes to red and the text color changes to yellow. The transition properties and duration specified earlier ensure that the color change occurs smoothly and gradually over the specified time period. By

using the transition-property and transition-duration properties, you can add smooth animations to CSS properties when a user hovers over a button or any other element on your web page. This provides a more visually appealing and interactive user experience.

How can you use the transition-timing-function to create a more natural feeling animation?

To create a more natural feeling animation using CSS, you can use the transition-timing-function property. This property allows you to specify the speed curve or timing function that determines how the transition progresses over time. Here's an example:

CSS:

```
.hover-button { background-color: blue;
color: white;
padding: 10px 20px;
border: none;
cursor: pointer;
transition-property: background-color;
transition-duration: 0.3s;
transition-timing-function: ease-in-out; }
```

```
.hover-button:hover {
background-color: red;
}
```

In this example, we'll focus on the transition of the background-color property when a user hovers over the button. The transition-timing-function property is set to ease-in-out, which is a common timing function that creates a smooth and gradual transition. The ease-in-out timing function starts slowly, accelerates in the middle, and then slows down again at the end. This gives a more natural feeling to the animation. You can use various other timing functions such as ease, linear, ease-in, ease-out, or even define your own custom timing function using the cubic-bezier() function. Each timing function produces a different animation effect, so you can experiment and choose the one that best suits your desired animation style. By using the transition-timing-function property, you can control the pace and smoothness of the transition, creating more natural and visually pleasing animations when elements change their properties over time.

