

Lesson:

Color and Background



Topics Covered

- Colors and their various format in CSS
- Applying Color to the HTML element using CSS with an example
- CSS background with its different properties and example

Colors and their various format in CSS

In CSS colors refers to the visual aspect of an element, such as the foreground or background color, text color, border color, etc. It is a fundamental aspect of web design, as it helps to create visually appealing and attractive designs.

Some of the related CSS color properties can be of -

- colors value
- background-color
- border-color
- outline-color
- box-shadow
- text-shadow
- opacity

The CSS Colors various formats can be specified in different ways, such as using hexadecimal values, RGB values, or HSL values. CSS also provides predefined color keywords, which are easier to use and remember than color codes. By defining the color of an element in CSS, designers can create a visually consistent design across all website pages.

CSS various format with example -

Named colors or predefined color keywords -

CSS provides a set of predefined color keywords, including commonly used colors such as "red", "blue", "green", "yellow", "aqua", "black", and many more. Predefined color keywords are not case-sensitive and can be used in any CSS property that accepts a color value.

Example of named color -

```
h1 {  
  color: black  
}
```

RGB and RGBa

In CSS, the `rgb()` is a function of specifying color using values for red, green, and blue. The RGB model is an additive color model, which means that colors are created by adding different amounts of red, green, and blue light together. The values for red, green, and blue can range from 0 to 255.

Example of RGB-

```
p{  
    color: rgb(255, 255, 255); /* white */  
    background-color: rgb(0,0,0) /* black */  
}
```

The `rgba()` function can also be used to specify an additional alpha value for transparency. The alpha value ranges from 0 (fully transparent) to 1 (fully opaque).

Example of RGBa -

```
p {  
    background-color: rgba(0,0,0, 0.5)  
}  
/* output - ligh black background color */
```

Hexadecimal notation

In CSS, hexadecimal notation is a method of specifying color using a six-digit code that represents the amount of red, green, and blue (RGB) in a color. Each pair of digits in the code represents the intensity of each color channel, with values ranging from 00 (0) to FF (255) in hexadecimal notation.

To use hexadecimal notation in CSS, you can use the pound sign (#) followed by the six-digit code

Example of Hexadecimal notation -

```
body {  
    background-color: #000000  
}  
/* output - black body background*/
```

HSL and HSLa

In CSS, HSL (Hue, Saturation, Lightness) is a color model that represents colors based on three values: hue, saturation, and lightness. The HSL model is designed to be more intuitive than other color models, as it allows you to specify a color based on its perceived attributes of hue, saturation, and brightness.

The hue value is represented by a degree value between 0 and 360, which corresponds to the color wheel. To use HSL color in CSS, you can use the `hsl()` function, followed by three comma-separated values representing the hue, saturation, and lightness, respectively.

Example of HSL -

```
p {
    background-color: hsl(120, 60%, 50%);
}
/* output - light green background color*/
```

The `hsla()` function can also be used to specify an additional alpha value for transparency. The alpha value ranges from 0 (fully transparent) to 1 (fully opaque).

Example - HSLa

```
body {
    background-color: hsla(240, 100%, 50%, 0.5);
}
/* Output - body background color similar to purple color*/
```

Applying Color to the HTML element using CSS with an example

Here is simple, where you can add CSS color to HTML element

```
<!DOCTYPE html>
<html>
    <head>
        <title>Example of Semantic HTML Tags</title>
        <style>
            body {
                background-color: hsla(240, 100%, 50%, 0.5);
                color: white;
            }
            /* before and after selector - insert content to before and after */
        </style>
    </head>
    <body>
        <p>
            Lorem, ipsum dolor sit amet consectetur adipisicing elit. Sequi
            consequuntur error ratione molestiae dignissimos earum quisquam
            aspernatur, repudiandae dicta sapiente.
        </p>
    </body>
</html>
```

Browser Output -

LOREM, ipsum dolor sit amet consectetur adipisicing elit. Sequi consequuntur error ratione molestiae dignissimos earum quisquam aspernatur, repudiandae dicta sapiente.

CSS background with its different properties and example -

In CSS, the background property is used to set one or more background properties for an element. It is a shorthand property that allows you to set multiple background properties in a single declaration.

The different properties of the CSS background property that can be used to style the background of an HTML element are - background-color, background-attachment, background-clip, background-image, background-origin, background-blend-mode, background-position, background-position-x, background-position-y, background-repeat and background-size.

Some of the commonly use background properties with example -

background color

```
/*set color to the background of the document or element*/
body {
    background-color: blue
}
/* output - background color of blue*/
```

background image

```
/* set background with the provided image*/
body {
    background-image: url(images.jpg);
}
```

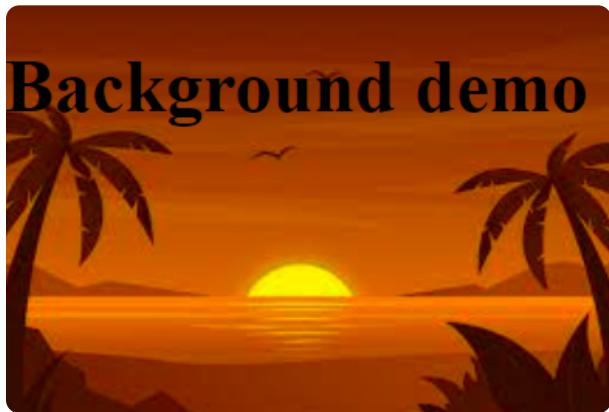
Browser output (background image)-



background blend mode

```
/* blend background images with the background color */
body {
    background-image: url(images.jpg);
    background-color: yellow;
    background-blend-mode: darken;
}
/* output - background image color to yellowish*/
```

Browser output -



Example of background repeat

```
/* this will set how background images are repeated */
body {
    background-image: url(images.jpg);
    background-repeat: no-repeat; // will stop the image from repeating
}
/* It can have values of - repeat-x, repeat-y, repeat, space, round, and so on.*/
/*
```

Browser output (background repeat) -



Example of background position

```
/* this will set the position of the background image*/
body {
    background-image: url(images.jpg);
    background-repeat: no-repeat; // will stop the image from repeating
    background-position: top;
}
/* It can have values of - left, center, bottom, right and so on.*/
```

Browser output (background-position)-

Background demo



Background shorthand Property

The background shorthand property can be used to set all the background properties in one declaration.

Syntax -

```
selector {
    background: <color><image><repeat><position>
}
```

Example -

```
.container {
    background-color: #ffffff;
    background-image: url("https://picsum.photos/200");
    background-repeat: no-repeat;
    background-position: right top;
}

/*
    The above code can be written with single declaration
    using background shorthand property
*/
.container {
    height: 50vh;
    border: 1px solid
    background: grey url("https://picsum.photos/200") no-repeat right top;
}
```

Browser output -

