

Learn CSS: Colors

CSS Color Alpha Values

Alpha values determine the transparency of colors in CSS. Alpha values can be set for both RGB and HSL colors by using `rgba()` and `hsla()` and providing a fourth value representing alpha. Alpha values can range between `0.0` (totally transparent) and `1.0` (totally opaque).

The CSS `transparent` value can also be used to create a fully transparent element.

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

.foreground {
  background-color: hsla(34, 100%, 50%,
0.1);
}

.transparent {
  color: transparent;
}
```

CSS Hexadecimal Colors

CSS colors can be represented in *hexadecimal* (or *hex*) notation. Hexadecimal digits can represent sixteen different values using `0 - 9` and `a - f`.

Hexadecimal colors are composed of 6 characters—each group of two represents a value between 0 and 255 for red, green, or blue. For example `#ff0000` is all red, no green, and no blue.

When both characters of all three colors are repeated, hex colors can be abbreviated to only three values, so `#0000ff` could also be represented as `#00f`.

```
.red {
  color: #ff0000;
}

.short-blue {
  color: #00f;
}
```

CSS HSL Colors

CSS colors can be declared with the *HSL* color system using `hsl()` syntax. This syntax contains three values: *hue* (the color value itself), *saturation* (intensity), and *lightness*. Hue values range from 0 to 360 while saturation and lightness values are represented as percentages.

```
.light-blue {  
  background-color: hsl(200, 70%, 50%);  
}
```

CSS rgb() Colors

CSS colors can be declared with *RGB colors* using `rgb()` syntax. `rgb()` should be supplied with three values representing red, green, and blue. These values range can from 0 to 255.

```
.hot-pink {  
  color: rgb(249, 2, 171);  
}  
  
.green {  
  color: rgb(0, 255, 0);  
}
```

Color Name Keywords

Color name keywords can be used to set color property values for elements in CSS.

```
h1 {  
  color: aqua;  
}  
  
li {  
  color: khaki;  
}
```

Learn CSS: Typography

CSS `font-weight` Property

The CSS `font-weight` property declares how thick or thin should be the characters of a text. Numerical values can be used with this property to set the thickness of the text. The numeric scale range of this property is from 100 to 900 and accepts only multiples of 100. The default value is `normal` while the default numerical value is `400`. Any value less than `400` will have text appear lighter than the default while any numerical value greater than the `400` will appear bolder.

In the given example, all the `<p>` elements will appear in a bolder font.

```
/* Sets the text as bolder. */  
p {  
  font-weight: 700;  
}
```

CSS `font-style` property

The CSS `font-style` property determines the font style in which text will appear.

It accepts `italic` as a value to set the font style to italic.

```
.text {  
  font-style: italic;  
}
```

CSS `@font-face` rule

The CSS `@font-face` rule allows external fonts or font files to be imported directly into stylesheets. The location of the font file must be specified in the CSS rule so that the files can be loaded from that location. This rule also allows locally hosted fonts to be added using a relative file path instead of a web URL.

```
@font-face {  
  font-family: 'Glegoo';  
  src: url('../fonts/Glegoo-Regular.ttf')  
  format('truetype');  
}
```

CSS Fallback Fonts

The CSS `font-family` property can have multiple fonts declared in order of preference. In this case the fonts following the initial font are known as the *fallback fonts*. If the initial value of the property `font-family` fails to load to the webpage, the fallback fonts will be used.

```
/* Here `Arial` is the fallback font for  
<p> tags */  
p {  
    font-family: "Helvetica", "Arial";  
}
```

The CSS `line-height` property

The CSS `line-height` property declares the vertical spacing between lines of text. It accepts both unitless numbers as a ratio (eg. 2) and numbers specified by unit as values (eg. 12px) but it does not accept negative numbers. A unitless number is an absolute value that will compute the line height as a ratio to the font size and a unit number can be any valid CSS unit (eg. pixels, percents, ems, rems, etc.). To set the `line-height` of the `<p>` elements to 10px , the given CSS declaration can be used.

```
p {  
    line-height: 10px;  
}
```

CSS Linking fonts

Linking fonts allow user to use web fonts in the document. They can be imported in an HTML document by using the `<link>` tag. Once the web font URL is placed within the `href` attribute, the imported font can then be used in CSS declaration.

```
<head>  
    <link  
href="https://fonts.googleapis.com/css?  
family=Droid%20Serif" rel="stylesheet">  
</head>
```

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Learn Links and Buttons

Signifiers

In the field of user interface design, signifiers are indicators that offer clues about how to interact with new objects or situations.

The User Agent Stylesheet

The user agent stylesheet is a set of default styles included in the browser for use on all web pages.

Links and Button Behavior

Links and buttons should exhibit the same behavior across different browsers to consistently maintain the same experience for all users.

Link States

In a browser, links have four main states:

- Normal (not clicked)
- Hover
- Active (clicked)
- Visited

Link Styles

Links should be styled in a different way from their surrounding text.

By default, links appear blue and underlined in contrast to the surrounding black text.

Anchor Text

Anchor text is the text inside of a link and is descriptive of the linked resource.

It improves:

- Usability
- Accessibility
- Search engine optimization

The 'title' Attribute

The `title` attribute can be provided to any HTML element.

This attribute is used for additional context or advisory text for clickable elements.

Tooltips

A tooltip is a descriptive box which contains the text of an element's `title` attribute and appears near the user's cursor.

The `:hover` CSS Pseudo-Class

The CSS pseudo-class `:hover` is used to style an element when the mouse cursor hovers over it.

The CSS `cursor` Property

The CSS `cursor` property is used to change the appearance of the mouse cursor when hovering over an element.

Skeuomorphism

Skeuomorphism is the concept of replicating or imitating real-life counterparts with UI elements.

Flat Design

Flat design uses simplicity and lack of clutter for its UI elements.

Button Skeuomorphic Styling

A `<button>` element can incorporate skeuomorphic styling for a realistic 3D appearance.

When pressing the button, a texture change may occur to make the button appear to flatten and pop back up when released.

Button Flat Styling

A `<button>` element can incorporate flat styling for a simple 2D effect.

When pressing the button, a color change may occur as a signifier that the button has been pressed.

Button Hover State

A button can have a hover state that changes the appearance of a cursor when it is directly over the button.

Mobile Device Hover State

The hover state of buttons and links do not apply to mobile devices due to the lack of a cursor.

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