

## Cascading Style Sheets Handbook

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---

```
<!DOCTYPE html>

<html>

<head>

<style>

body {

    background-color: lightblue;

}


h1 {

    color: white;

    text-align: center;

}


p {

    font-family: verdana;

    font-size: 20px;

}

</style>

</head>

<body>


<h1>My First CSS Example</h1>

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


</body>

</html>
```

---

The CSS rule below will be applied to the HTML element with id="para1":

```
#para1 {  
  text-align: center;  
  color: red;  
}
```

---

In this example all HTML elements with class="center" will be red and center-aligned:

```
.center {  
  text-align: center;  
  color: red;  
}
```

---

In this example only <p> elements with class="center" will be red and center-aligned:

```
p.center {  
  text-align: center;  
  color: red;  
}
```

---

HTML elements can also refer to more than one class.

<p class="center large">This paragraph refers to two classes.</p>

---

The CSS rule below will affect every HTML element on the page:

```
* {  
  text-align: center;  
  color: blue;  
}
```

---

In this example we have grouped the selectors from the code above:

```
h1, h2, p {  
  text-align: center;  
  color: red;  
}
```

---

## External CSS

With an external style sheet, you can change the look of an entire website by changing just one file!

Each HTML page must include a reference to the external style sheet file inside the <link> element, inside the head section.

```
<!DOCTYPE html>  
  
<html>  
  
<head>  
  
<link rel="stylesheet" href="mystyle.css">  
  
</head>
```

```
<body>
```

```
<h1>This is a heading</h1>
```

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

```
</body>
```

```
</html>
```

---

mystyle.css

```
body {  
    background-color: lightblue;  
}
```

```
h1 {  
    color: navy;  
    margin-left: 20px;  
}
```

---

## Internal CSS

An internal style sheet may be used if one single HTML page has a unique style.

The internal style is defined inside the <style> element, inside the head section.

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<style>
body {
  background-color: linen;
}

h1 {
  color: maroon;
  margin-left: 40px;
}
</style>
</head>
<body>

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

</body>
</html>
```

---

## Inline CSS

An inline style may be used to apply a unique style for a single element.

To use inline styles, add the style attribute to the relevant element. The style attribute can contain any CSS property.

```
<!DOCTYPE html>
<html>
<body>
```

```
<h1 style="color:blue;text-align:center;">This is a heading</h1>
```

```
<p style="color:red;">This is a paragraph.</p>
```

```
</body>
```

```
</html>
```

---

## CSS Comments

Comments are used to explain the code, and may help when you edit the source code at a later date.

Comments are ignored by browsers.

A CSS comment is placed inside the <style> element, and starts with /\* and ends with \*/:

```
/* This is a single-line comment */
```

```
p {  
  color: red;  
}
```

---

```
/* This is  
a multi-line  
comment */
```

```
p {  
  color: red;  
}
```

---

## HTML and CSS Comments

From the HTML tutorial, you learned that you can add comments to your HTML source by using the `<!--...-->` syntax.

In the following example, we use a combination of HTML and CSS comments:

```
<!DOCTYPE html>

<html>
<head>
<style>
p {
  color: red; /* Set text color to red */
}
</style>
</head>
<body>

<h2>My Heading</h2>

<!-- These paragraphs will be red -->
<p>Hello World!</p>
<p>This paragraph is styled with CSS.</p>
<p>CSS comments are not shown in the output.</p>

</body>
</html>
```

---

Colors are specified using predefined color names, or RGB, HEX, HSL, RGBA, HSLA values.

## CSS Background Color

You can set the background color for HTML elements:

```
<!DOCTYPE html>

<html>

<body>

<h1 style="background-color:Tomato;">Tomato</h1>
<h1 style="background-color:Orange;">Orange</h1>
<h1 style="background-color:DodgerBlue;">DodgerBlue</h1>
<h1 style="background-color:MediumSeaGreen;">MediumSeaGreen</h1>
<h1 style="background-color:Gray;">Gray</h1>
<h1 style="background-color:SlateBlue;">SlateBlue</h1>
<h1 style="background-color:Violet;">Violet</h1>
<h1 style="background-color:LightGray;">LightGray</h1>

</body>

</html>
```

---

## CSS Text Color

You can set the color of text:

```
<h1 style="color:Tomato;">Hello World</h1>
<p style="color:DodgerBlue;">Lorem ipsum...</p>
<p style="color:MediumSeaGreen;">Ut wisi enim...</p>
```

---

## CSS Border Color



You can set the color of borders:

```
<h1 style="border:2px solid Tomato;">Hello World</h1>
```

```
<h1 style="border:2px solid DodgerBlue;">Hello World</h1>
```

```
<h1 style="border:2px solid Violet;">Hello World</h1>
```

---

## CSS background-color

The background-color property specifies the background color of an element.

```
body {  
  background-color: lightblue;  
}
```

---

## Example

Here, the <h1>, <p>, and <div> elements will have different background colors:

```
h1 {  
  background-color: green;  
}
```

```
div {  
  background-color: lightblue;  
}
```

```
p {  
  background-color: yellow;  
}
```

---

## Opacity / Transparency

The opacity property specifies the opacity/transparency of an element. It can take a value from 0.0 - 1.0. The lower value, the more transparent:

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

---

## CSS background-image

The background-image property specifies an image to use as the background of an element.

By default, the image is repeated so it covers the entire element.

```
body {  
  background-image: url("paper.gif");  
}
```

---

## CSS Border Style

The border-style property specifies what kind of border to display.

The following values are allowed:

dotted - Defines a dotted border

dashed - Defines a dashed border

solid - Defines a solid border

double - Defines a double border

groove - Defines a 3D grooved border. The effect depends on the border-color value

ridge - Defines a 3D ridged border. The effect depends on the border-color value

inset - Defines a 3D inset border. The effect depends on the border-color value

outset - Defines a 3D outset border. The effect depends on the border-color value

none - Defines no border

hidden - Defines a hidden border

The border-style property can have from one to four values (for the top border, right border, bottom border, and the left border).

```
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;}
```

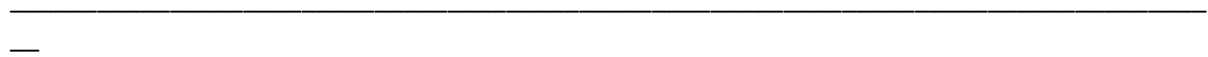
```
p.inset {border-style: inset;}
```

```
p.outset {border-style: outset;}
```

```
p.none {border-style: none;}
```

```
p.hidden {border-style: hidden;}
```

```
p.mix {border-style: dotted dashed solid double;}
```



## CSS Border Width

The border-width property specifies the width of the four borders.

The width can be set as a specific size (in px, pt, cm, em, etc) or by using one of the three pre-defined values: thin, medium, or thick:

## Example

Demonstration of the different border widths:

```
p.one {  
  border-style: solid;  
  border-width: 5px;  
}
```

```
p.two {  
  border-style: solid;  
  border-width: medium;  
}
```

```
p.three {  
  border-style: dotted;  
  border-width: 2px;  
}
```

```
p.four {  
  border-style: dotted;  
  border-width: thick;  
}
```

---

## Specific Side Widths

The border-width property can have from one to four values (for the top border, right border, bottom border, and the left border):

## Example

```
p.one {  
  border-style: solid;
```

```
border-width: 5px 20px; /* 5px top and bottom, 20px on the sides */  
}
```

```
p.two {  
  border-style: solid;  
  border-width: 20px 5px; /* 20px top and bottom, 5px on the sides */  
}
```

```
p.three {  
  border-style: solid;  
  border-width: 25px 10px 4px 35px; /* 25px top, 10px right, 4px bottom and 35px left */  
}
```



## CSS Border Color

The border-color property is used to set the color of the four borders.

The color can be set by:

name - specify a color name, like "red"

HEX - specify a HEX value, like "#ff0000"

RGB - specify a RGB value, like "rgb(255,0,0)"

HSL - specify a HSL value, like "hsl(0, 100%, 50%)"

transparent

Note: If border-color is not set, it inherits the color of the element.

```
p.one {  
  border-style: solid;  
  border-color: red;  
}
```

```
p.two {  
  border-style: solid;  
  border-color: green;  
}
```

```
p.three {  
  border-style: dotted;  
  border-color: blue;  
}
```

---

### Specific Side Colors

The border-color property can have from one to four values (for the top border, right border, bottom border, and the left border).

#### Example

```
p.one {  
  border-style: solid;  
  border-color: red green blue yellow; /* red top, green right, blue bottom and yellow left */  
}
```

---

### CSS Border - Individual Sides

From the examples on the previous pages, you have seen that it is possible to specify a different border for each side.

In CSS, there are also properties for specifying each of the borders (top, right, bottom, and left):

#### Example

```
p {  
  border-top-style: dotted;  
  border-right-style: solid;  
  border-bottom-style: dotted;  
  border-left-style: solid;  
}
```

---

### CSS Border - Shorthand Property

Like you saw in the previous page, there are many properties to consider when dealing with borders.

To shorten the code, it is also possible to specify all the individual border properties in one property.

The border property is a shorthand property for the following individual border properties:

border-width

border-style (required)

border-color

Example

```
p {  
  border: 5px solid red;  
}
```

---

### CSS Rounded Borders

The border-radius property is used to add rounded borders to an element:

```
p {  
  border: 2px solid red;
```

```
border-radius: 5px;  
}
```

---

## 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).

### Margin - Individual Sides

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

margin-top

margin-right

margin-bottom

margin-left

All the margin properties can have the following values:

auto - the browser calculates the margin

length - specifies a margin in px, pt, cm, etc.

% - specifies a margin in % of the width of the containing element

inherit - specifies that the margin should be inherited from the parent element

Tip: Negative values are allowed.

### Example

Set different margins for all four sides of a <p> element:

```
p {  
  margin-top: 100px;
```



```
margin-bottom: 100px;  
margin-right: 150px;  
margin-left: 80px;  
}
```

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<style>
```

```
div {
```

```
border: 1px solid black;
```

```
margin-top: 100px;
```

```
margin-bottom: 100px;
```

```
margin-right: 150px;
```

```
margin-left: 80px;
```

```
background-color: lightblue;
```

```
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<h2>Using individual margin properties</h2>
```

```
<div>This div element has a top margin of 100px, a right margin of 150px, a bottom margin of 100px,  
and a left margin of 80px.</div>
```

```
</body>
```

```
</html>
```

---

## CSS Padding

Padding is used to create space around an element's content, inside of any defined borders.

## CSS Padding

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

With CSS, you have full control over the padding. There are properties for setting the padding for each side of an element (top, right, bottom, and left).

### Padding - Individual Sides

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

padding-top

padding-right

padding-bottom

padding-left

All the padding properties can have the following values:

length - specifies a padding in px, pt, cm, etc.

% - specifies a padding in % of the width of the containing element

inherit - specifies that the padding should be inherited from the parent element

Note: Negative values are not allowed.

### Example

Set different padding for all four sides of a <div> element:

```
div {  
  padding-top: 50px;  
  padding-right: 30px;  
  padding-bottom: 50px;  
  padding-left: 80px;
```

```
}
```

---

## CSS Height, Width and Max-width

The CSS height and width properties are used to set the height and width of an element.

The CSS max-width property is used to set the maximum width of an element.

```
div {  
  height: 200px;  
  width: 50%;  
  background-color: powderblue;  
}
```

---

## 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)"

Look at CSS Color Values for a complete list of possible color values.

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

## Example

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

```
h1 {  
  color: green;  
}
```

---

## Text Color and Background Color

In this example, we define both the background-color property and the color property:

### Example

```
body {  
  background-color: lightgrey;  
  color: blue;  
}
```

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

```
div {  
  background-color: blue;  
  color: white;  
}
```

---

## 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.

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):

Example

```
h1 {  
  text-align: center;  
}
```

```
h2 {  
  text-align: left;  
}
```

```
h3 {  
  text-align: right;  
}
```

---

CSS Fonts

```
body, h1, h2, h3, h4, h5, h6 {  
  font-family: Arial, Helvetica, sans-serif;  
}
```