

Cascading Style Sheets

The Box Model

Exploring Border Properties

The border specifies a space between the padding and content in the box model. The border properties in CSS define the width, color, and style of border area of the box. This property can also set the style, width, and color of the border property in one declaration. The syntax to set the border is as follows:

```
.class1 { border 1px double value; }
```

CSS 3 also introduces some new properties that apply to the borders, of a box like shape, such as **border-radius**, **border image**, and **box-shadow**. The border-radius property enables you to create rounded comers to the borders of a box to design elements. The border-image property enables you to insert an image in a border, while the box-shadow property allows you to attach shadows to a box.

All the available properties of borders:

Property	Description
border- width	Specifies the width of the border area and have either of the following values: • Thin—Defines a thin border • Medium—Defines a medium border , • Thick—Defines a thick border • Length—Defines the thickness of the border • Inherit—Defines that the width is inherited from the parent element
border-top-width	Sets the width of the top border of an element.
border-right-width	Sets the width of the right border of an element.
border- bottom -width	Sets the width of the bottom border of an element.
border-left-width	Sets the width of the left border of an element.
border-color	Specifies the color of the border. Border colors are defined using one of the following values: • Name—Defines the name of the color, such as red and blue • RGB (Red, green, Blue) — Defines a RGB value, such as rgb(100,0,0) • Hex—Specifies a hex value, such as #00ff00
border-style	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

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	• 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).
border-top- style	Sets the style of the top border of an element.
border-right- style	Sets the style of the right border of an element.
border- bottom - style	Sets the style of the bottom border of an element.
border-left- style	Sets the style of the left border of an element.
border-image	Specifies a shorthand property for setting all the border-image properties
border-image-outset	Specifies the amount by which the border image.area extends beyond the border box
border-image-repeat	Specifies whether the image-border should be repeated, rounded, or stretched
border-image-slice	Specifies the inward offsets of the image-border
border-image-source	Specifies an image to be used as a border
border-image-width	Specifies the widths of the image-border
border-radius	Specifies a shorthand property for setting all the border radius related properties
border-top-left-radius	Specifies the shape of the border of the top-left corner
border-top-right-radius	Specifies the shape of the border of the top-right corner
border-bottom-left-radius	Specifies the shape of the border of the bottom-left corner
border-bottom-right-radius	Specifies the shape of the border of the bottom-right corner
box-shadow	Attaches one or more drop-shadows to the box

```
<!DOCTYPE html><html><head><style>
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;}
</style></head><body><h2>The border-style
Property</h2>
<p>This property specifies what kind of
border to display:</p>
<p class="dotted">A dotted border.</p>
<p class="dashed">A dashed border.</p>
<p class="solid">A solid border.</p>
<p class="double">A double border.</p>
<p class="groove">A groove border.</p>
<p class="ridge">A ridge border.</p>
<p class="inset">An inset border.</p>
<p class="outset">An outset border.</p>
<p class="none">No border.</p>
<p class="hidden">A hidden border.</p>
<p class="mix">A mixed border.</p>
</body></html>
```

The border-style Property

This property specifies what kind of border to display:

A dotted border.

A dashed border.

A solid border.

A double border.

A groove border.

A ridge border.

An inset border.

An outset border.

No border.

A hidden border.

A mixed border.

```
<!DOCTYPE html>
<html><head><style>
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; }
p.five { border-style: double;
border-width: 15px; }
p.six { border-style: double;
border-width: thick; }
</style></head>
<body><h2>The border-width Property</h2>
<p>This property specifies the width of the four borders:
</p>
<p class="one">Some text.</p>
<p class="two">Some text.</p>
<p class="three">Some text.</p>
<p class="four">Some text.</p>
<p class="five">Some text.</p>
<p class="six">Some text.</p>
<p><b>Note:</b> The "border-width" property does not work if
it is used alone. Always specify the "border-style" property
to set the borders first.</p></body></html>
```

The border-width Property

This property specifies the width of the four borders:

Some text.

Some text.

Some text.

Some text.

Some text.

Some text.

Note: The "border-width" property does not work if it is used alone. Always specify the "border-style" property to set the borders first.

```
<!DOCTYPE html><html><head><style>
p.one { border-style: solid;
border-color: red; }
p.two { border-style: solid;
border-color: green; }
p.three { border-style: dotted;
border-color: blue; }
</style></head>
<body><h2>The border-color Property</h2>
<p>This property specifies the color of the four
borders:</p>
<p class="one">A solid red border</p>
<p class="two">A solid green border</p>
<p class="three">A dotted blue border</p>
<p><b>Note:</b> The "border-color" property does not
work if it is used alone. Use the "border-style"
property to set the borders first.</p>
</body>
</html>
```

The border-color Property

This property specifies the color of the four borders:

A solid red border

A solid green border

A dotted blue border

Note: The "border-color" property does not work if it is used alone. Use the "border-style" property to set the borders first.

```
<!DOCTYPE html> <html>
<head><style>
p.normal { border: 2px solid red; }
p.round1 { border: 2px solid red;
border-radius: 5px; }
p.round2 { border: 2px solid red;
border-radius: 8px; }
p.round3 { border: 2px solid red;
border-radius: 12px; }
</style></head>
<body><h2>The border-radius Property</h2>
<p>This property is used to add rounded borders to an
element:</p>
<p class="normal">Normal border</p>
<p class="round1">Round border</p>
<p class="round2">Rounder border</p>
<p class="round3">Roundest border</p>
</body></html>
```

The border-radius Property

This property is used to add rounded borders to an element:

Normal border

Round border

Rounder border

Roundest border

```
<!DOCTYPE html>
<html><head><style>
#borderimg1 { border: 10px solid transparent;
padding: 15px;
border-image: url(border.png) 30 round;}
#borderimg2 { border: 10px solid transparent;
padding: 15px;
border-image: url(border.png) 30 stretch;}
</style></head>
<body>
<h1>The border-image Property</h1>
<p>The border-image property specifies an image to be used as
the border around an element:</p>

<p id="borderimg1">Here, the image tiles to fill the area.
The image is rescaled if necessary, to avoid dividing tiles.
</p>
<p id="borderimg2">Here, the image is stretched to fill the
area.</p>
<p>Here is the original image:</p>

<p><strong>Note:</strong> Internet Explorer 10, and earlier
versions, do not support the border-image property.</p>
</body></html>
```

The border-image Property

The border-image property specifies an image to be used as the border around an element:

Here, the image tiles to fill the area. The image is rescaled if necessary, to avoid dividing tiles.

Here, the image is stretched to fill the area.

Here is the original image:



```
<!DOCTYPE html><html><head><style>
#example1 { border: 1px solid;
padding: 10px;
box-shadow: 5px 10px;}
#example2 { border: 1px solid;
padding: 5px;
box-shadow: 5px 10px #888888;}
#example3 { border: 1px solid;
padding: 5px;
box-shadow: 5px 10px red;}
</style></head>
<body>
<h1>The box-shadow Property</h1>
<p>The box-shadow property defines
the shadow of an element:</p>
<h2>box-shadow: 5px 10px:</h2>
<div id="example1">
  <p>A div element with a shadow.
The first value is the horizontal
offset and the second value is the
vertical offset. The shadow color
will be inherited from the text
color.</p></div>
<h2>box-shadow: 5px 10px #888888:</h2>
<div id="example2">
  <p>You can also define the color
of the shadow. Here the shadow
color is grey.</p></div>
<h2>box-shadow: 5px 10px red:</h2>
<div id="example3"><p>A red
shadow.</p></div>
</body></html>
```

The box-shadow Property

The box-shadow property defines the shadow of an element:

box-shadow: 5px 10px:

A div element with a shadow. The first value is the horizontal offset and the second value is the vertical offset. The shadow color will be inherited from the text color.

box-shadow: 5px 10px #888888:

You can also define the color of the shadow. Here the shadow color is grey.

box-shadow: 5px 10px red:

A red shadow.

Exercise:

1: Write short note on following CSS Border properties.

- border-style
- border-width
- border-color
- border-image
- border-radius
- box-shadow