

Setting Up Borders

In this lesson, we will learn how to set up borders in our web page using the magic of CSS.

WE'LL COVER THE FOLLOWING ^

- [Listing 10-9: Using borders](#)

A border is simply a line that runs around an element, and it can be rounded at the corners.

As you already learned, you can use the border shorthand notation to set all edges of the box, or use `border-top`, `border-right`, `border-bottom`, or `border-left` to specify the properties of a particular edge. When setting up the edges of the border, you can specify three individual properties: `color`, `width`, and `style`.

To make the setup a bit more complicated, you can specify these attributes with other notations.

For example, you can specify the border width of all edges with `border-width`:

```
h1 { border-width: 4px; }
```



Similarly, you can use the `border-color`, and `border-style` properties:

```
h2 {  
  border-style: dotted;  
  border-color: fuchsia;  
}
```



If you want, you can specify any of these attributes for a specific edge. For example, you can set the color of the left border to red:

```
h3 { border-left-color: red; }
```

When using any shorthand notation, you can specify the color, width and style properties in any order. Moreover, you can optionally leave any of them: the CSS parser is smart enough to infer your intention from the values you specified.

You can use any valid color values for the color, and any valid size value for the width property. The style property determines the line style used to draw the border, and it can be any of the following values: solid, dashed, dotted, double, groove, inset, outset, ridge, and none. The none value removes the border.

When setting up border properties, do not forget about the cascade order: If a certain property is specified by multiple declarations in the same rule, the last will win.

Take a look at this rule:

```
p {  
  border: 3px solid blue;  
  border-width: 4px;  
  border-color: red;  
  border-top: 2px solid green;  
}
```

It will result in a four-pixels wide solid red border around the paragraph, except the top edge, which is a two-pixels wide solid green border. Why? Although the border declaration set a three-pixel solid blue border, the border-width declaration set it to four pixels wide, and border-color changes all edges to red. At this point, all border edges are four pixels wide and solid red. The border-top declaration keeps all edge properties, except the top edge that becomes two pixels wide and green.

Listing 10-9 shows a simple code that displays four border styles. This example is really simple, and thus you do not need any further explanation. You can also try to modify it in order to display the remaining border styles (groove, inset, outset, and ridge).


Listing 10-9: Using borders

```
<!DOCTYPE html>
<html>

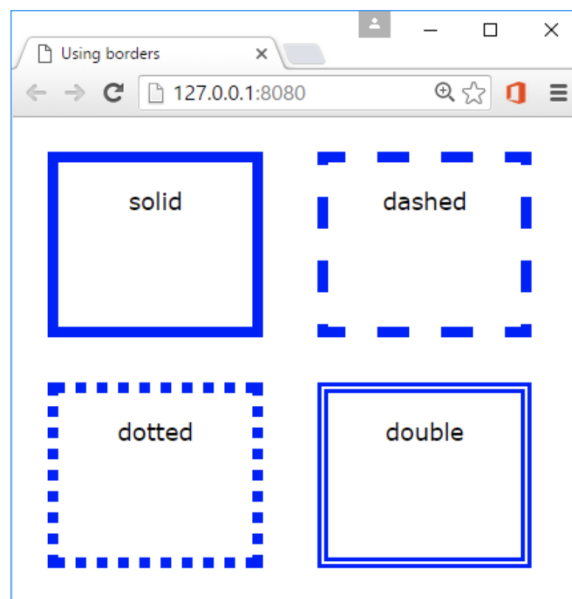
<head>
  <title>Using borders</title>
  <style>
    body {
      font-family: Verdana, Arial, sans-serif;
    }

    .box {
      margin: 16px;
      padding: 16px;
      border: 8px solid blue;
      display: inline-block;
    }

    .content {
      width: 100px;
      height: 80px;
      text-align: center;
    }
  </style>
</head>
<body>
  <div class="box" style="border-style: solid">
    <div class="content">solid</div>
  </div>
  <div class="box" style="border-style: dashed">
    <div class="content">dashed</div>
  </div>
  <div class="box" style="border-style: dotted">
    <div class="content">dotted</div>
  </div>
  <div class="box" style="border-style: double">
    <div class="content">double</div>
  </div>
</body>
</html>
```

 **NOTE:** The display property set in the .box rule may seem unfamiliar to you. Soon, you'll learn more about it.

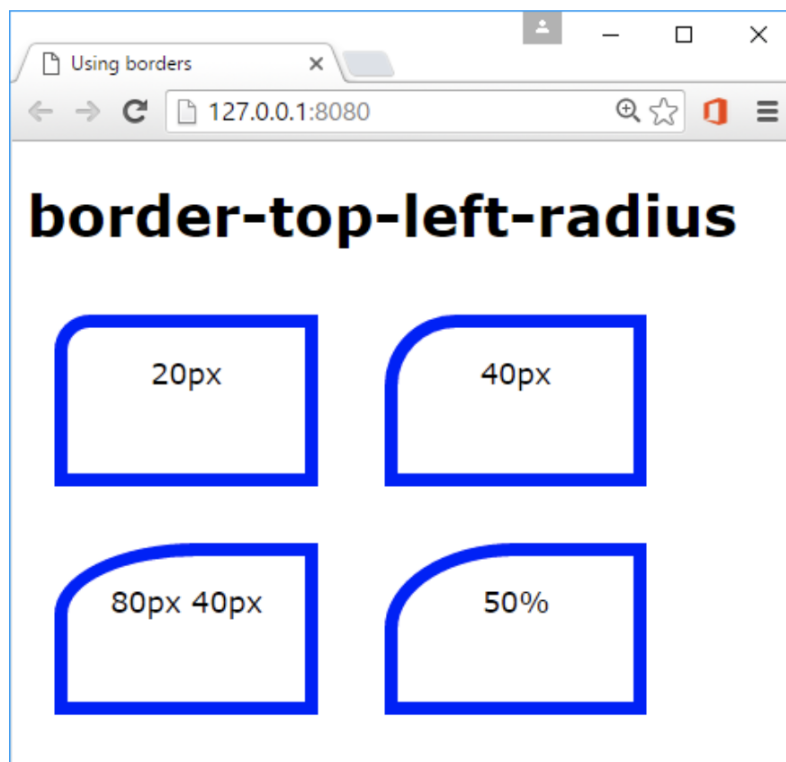
This code displays the page shown below:




A few border styles

By default, all borders have angular (square) corners, but you can change them to rounded corners with the `border-radius` property. This property is a shorthand that can be used to set up the rounding style for all corners. You can set up the rounding with a single corner using one of the following properties: `border-top-left-radius`, `border-top-right-radius`, `border-bottom-right-radius`, and `border-bottom-left-radius`. Each corner can be circular or elliptical.

The image below demonstrates a few settings of `border-top-left-radius`. The two borders in the first row are circular, because they use `20px` and `40px` settings, so the radius of the corner is set to 20 pixels and 40 pixels. In the second row, the borders are elliptical. The first border specifies two radii, 80 pixels and 40 pixels, so an arch of a 160 pixels wide and 80 pixels tall ellipse is used to round the corner. The second border in the second row uses `50%` for the radius, and because the box is rectangular (not square), it will use different horizontal and vertical radius values.



Using rounded corners by setting the border-top-left-radius property

 **NOTE:** You can find the source code of this sample in the Exercise-10-11 folder below.

```
<!DOCTYPE html>
<html>
<head>
  <title>Using borders</title>
  <style>
    body {
      font-family: Verdana, Arial, sans-serif;
    }

    .box {
      margin: 16px;
      padding: 16px;
      border: 8px solid blue;
      display: inline-block;
    }

    .content {
      width: 100px;
      height: 50px;
      text-align: center;
    }
  </style>
</head>
<body>
  <h1>border-top-left-radius</h1>
```

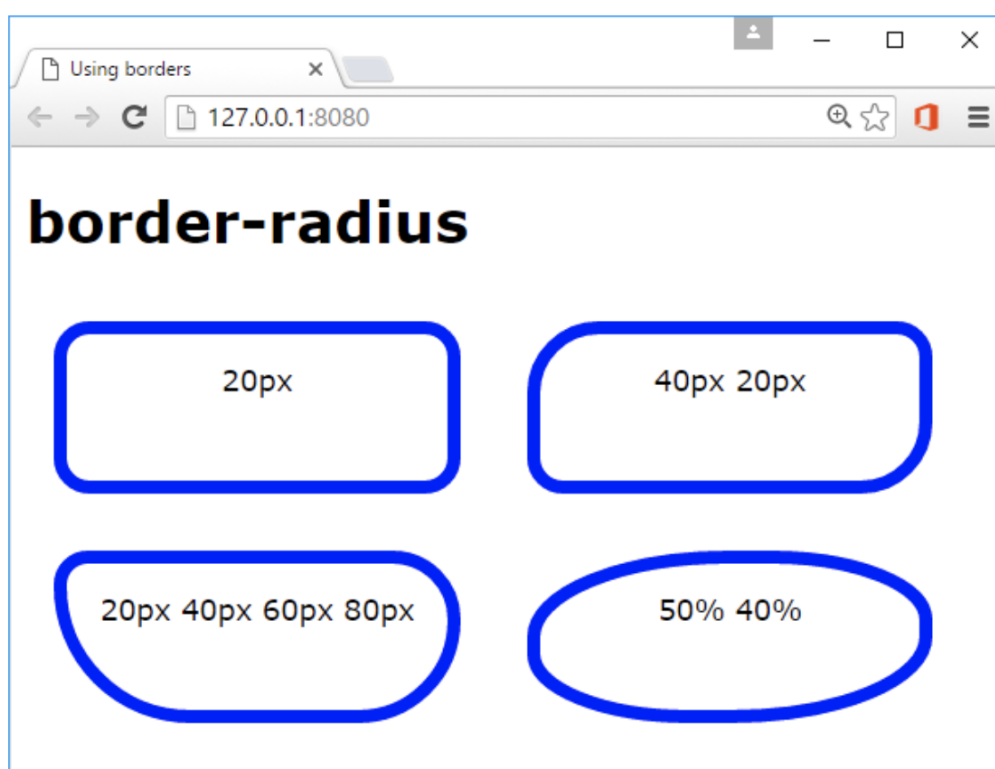
```

<div class="box" style="border-top-left-radius: 20px">
  <div class="content">20px</div>
</div>
<div class="box" style="border-top-left-radius: 40px">
  <div class="content">40px</div>
</div>
<div class="box" style="border-top-left-radius: 80px 40px">
  <div class="content">80px 40px</div>
</div>
<div class="box" style="border-top-left-radius: 50%">
  <div class="content">50%</div>
</div>
</body>
</html>


```

When using `border-radius` you can specify one, two, or four radius values. If you set up this property with one value, all corners will be set to this radius. If you specify four values, the first specifies the top-left corner, the others work their way around clockwise. You can also supply two values, and in this case the first applies to the top-left and bottom-right corners, the second applies to the remaining two corners. If you want to use elliptical corner with fixed size units (pixel, inches, ems, etc.) you can specify two of them separated with a slash, such as 40px/80px.

The image below shows a few examples of setting up the `border-radius` property.



Using rounded corners by setting the border-radius property

 **NOTE:** You can find the source code of this sample in the Exercise-10-12 folder.

```
<!DOCTYPE html>
<html>
<head>
  <title>Using borders</title>
  <style>
    body {
      font-family: Verdana, Arial, sans-serif;
    }

    .box {
      margin: 16px;
      padding: 16px;
      border: 8px solid blue;
      display: inline-block;
    }

    .content {
      width: 180px;
      height: 50px;
      text-align: center;
    }
  </style>
</head>
<body>
  <h1>border-radius</h1>
  <div class="box" style="border-radius: 20px">
    <div class="content">20px</div>
  </div>
  <div class="box" style="border-radius: 40px 20px">
    <div class="content">40px 20px</div>
  </div>
  <div class="box" style="border-radius: 20px 40px 60px 80px">
    <div class="content">20px 40px 60px 80px</div>
  </div>
  <div class="box" style="border-radius: 50% 40%">
    <div class="content">50% 40%</div>
  </div>
</body>
</html>
```

In the *next lesson*, we look at setting up the height and width of the box.