Borders

**Box Borders**

In the last lesson, you learned how to modify the dimensions of boxes. In this lesson, you'll learn how to manipulate another box property: borders.

In a previous exercise, you typed the following unexplained snippet of code into your stylesheet:

\* {

border: 1px solid rgba(0, 0, 0, 0.3);

}

In this lesson, you'll learn exactly what this code means and how it can be used to help support your learning of the box model.

Let's begin!

**Border Style**

It's not possible to view a box's border if the border's *style* has not been set. A border's style can be set with the border-style property. This property can take on one of the following values:

1. solid - border is a solid line.
2. dashed - border is a series of lines or dashes.
3. dotted - border is a series of square dots.
4. double - border is two solid black lines.
5. groove - border is a groove (or carving).
6. inset - border appears to cut into the screen.
7. outset - border appears to pop out of the screen.
8. ridge - border appears as a picture frame.
9. hidden or none - no border.

div {

border-style: solid;

}

In the example above, a solid black line will appear around all divs on the page.

**Border Width I**

You can control the thickness, or width, of borders with the border-width property. The value of border-width is given in pixels.

p {

border-style: solid;

border-width: 5px;

}

In the example above, the solid borders of all paragraphs on the page would be set to a thickness of 5 pixels.

It's also possible to also set the border-width property to one of the following named thicknesses:

1. thin
2. medium
3. thick

While these values are perfectly valid, you may not see them often, but it's good to know that they exist.

# Border Width II

What if you don't want the border thickness to be the same on all four sides?

In that case, another version of the border-width property allows you to specify the width for each side of the border.

p {

border-style: solid;

border-width: 3px 1px 2px 1px;

}

The values in the example above refer to the border width in clockwise order (top: 3 pixels, right: 1 pixel, bottom: 2 pixels, left: 1 pixel).

**Border Width III**

If you'd like to be even more specific about the width of different sides of the border, you can use the following properties:

1. border-top-width
2. border-right-width
3. border-bottom-width
4. border-left-width

Each property affects the width of only one side of the border, giving you more flexibility in customization.

p {

border-style: solid;

border-left-width: 4px;

}

In the example above, only the left side of the border will be set to a width of 4 pixels.

# Border Color

The color of a border can also be customized with the border-color property.

div.container {

border-style: solid;

border-width: 3px;

border-color: rgb(22, 77, 100);

}

The border-color property accepts colors in the various formats you learned about earlier: named colors, RGB(a) colors, and hex colors. It's common to use hex colors for borders, but you'll likely also come across RGB(a) colors as well.

# Shorthand

In the last few exercises, you learned how to set a border's style, width, and color with three different properties. CSS allows you to style all three properties at once with a shorthand property.

The shorthand way of setting border style, width, and color can be achieved with the border property. Let's look at how we can decrease the amount of [code bloat](https://en.wikipedia.org/wiki/Code_bloat) with this property.

div.container {

border-style: solid;

border-width: 3px;

border-color: rgb(22, 77, 100);

}

The code in the example above can be shortened using the border property:

div.container {

border: 3px solid rgb(22, 77, 100);

}

Note that the border property includes all of the properties that we previously styled individually: width, style, and color.

It's considered best practice to follow the width-style-color order when using the border property.

# Border Radius

Ever since we revealed the borders of boxes, you may have noticed that the borders highlight the true shape of an element's box: square. Thanks to CSS, a border doesn't have to be square.

The corners of an element's border box can be modified with the border-radius property.

div.container {

border: 3px solid rgb(22, 77, 100);

border-radius: 5px;

}

The code in the example above will set all four corners of the border to a radius of 5 pixels (i.e. the same curvature that a circle with radius 5 pixels would have).

You can create a border that is a perfect circle by setting the radius equal to the height of the box, or to 100%.

div.container {

height: 60px;

width: 60px;

border: 3px solid rgb(22, 77, 100);

border-radius: 100%;

}

The code in the example above creates a div that is a perfect circle.