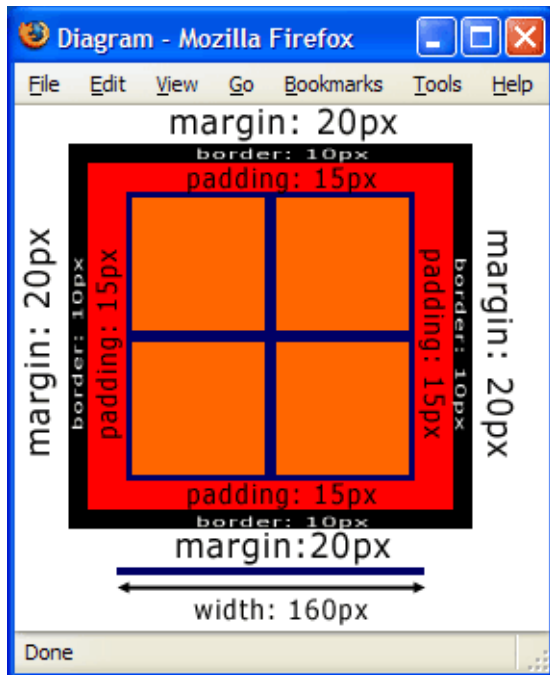


Introduction to CSS Training

Borders, Margins and Padding

Lesson 1, Activity 2: Getting Started

The following diagram shows how margins, borders, and padding affect the width and height of an element.



As the diagram shows, margins, borders and padding increase the amount of space that an element takes up. For example, the width of the `div` above is set to 160 pixels. On all four sides, the `div` has 15 pixels of padding, a 10-pixel border, and a 20-pixel margin. The entire width of the element inclusive of its padding, border and margin is 250 pixels ($160\text{px} + (2 * (15\text{px} + 10\text{px} + 20\text{px}))$). This becomes important when using positioning to layout pages.

The code for the page shown above follows.

Code Sample:

<BordersMarginsAndPadding/Demos/Diagram.html>

```
<!DOCTYPE HTML>
<html>
<head>
<meta charset="UTF-8">
<title>Diagram</title>
</head>
<body>
<div style="margin: 20px;
border: 10px solid black;
padding: 15px;
background: red;
text-align:center;
color: white;
width: 160px;">
```

```

</div>

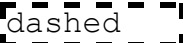






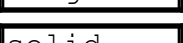
</body>
</html>
```

We'll walk you through this again in the following presentation.

Lesson 1, Activity 3: Borders

Border-style

The `border-style` property is used to specify whether an element has a border or not and, if it does, how that border should appear. Possible values are listed below:

- none
-  dashed
-  dotted
-  double
-  groove
-  inset
-  outset
-  ridge
-  solid

Code Sample:

[BordersMarginsAndPadding/Demos/BorderStyles.html](#)

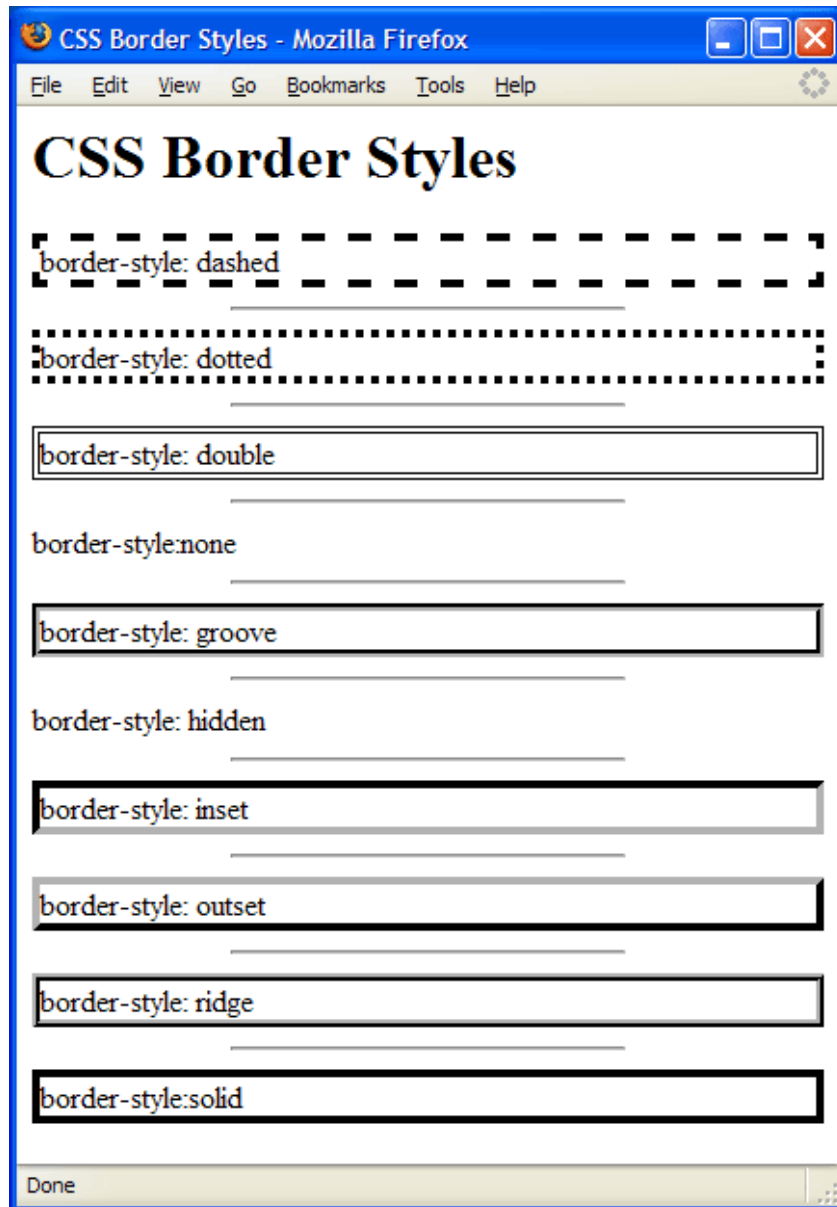
```
<!DOCTYPE HTML>
<html>
<head>
<meta charset="UTF-8">
<title>CSS Border Styles</title>
<style type="text/css">
  hr {width: 50%; margin-top: 10px; margin-bottom: 10px;}
  div {border-width: 4px}
</style>
</head>
<body>
<h1>CSS Border Styles</h1>
<div style="border-style: dashed;">border-style: dashed</div>
<hr>
<div style="border-style: dotted;">border-style: dotted</div>
<hr>
<div style="border-style: double;">border-style: double</div>
<hr>
<div style="border-style: none;">border-style: none</div>
<hr>
<div style="border-style: groove;">border-style: groove</div>
<hr>
<div style="border-style: hidden;">border-style: hidden</div>
<hr>
<div style="border-style: inset;">border-style: inset</div>
<hr>
<div style="border-style: outset;">border-style: outset</div>
```

```

<hr>
<div style="border-style: ridge;">border-style: ridge</div>
<hr>
<div style="border-style:solid;">border-style:solid</div>
</body>
</html>

```

The above code will render the following:



Specifying Border-style by Side

Each side of an element can have a different border style. The properties for this are listed below:

- `border-top-style`
- `border-right-style`

- border-bottom-style
- border-left-style

Border-color

The `border-color` property is used with `border-style` to specify the color of the border. Its value can be any valid color.

Syntax

```
selector {  
  border-style:value;  
  border-color:value;  
}
```

Specifying border-color by Side

Each side of an element can have a different border color. The properties for this are listed below:

- border-top-color
- border-right-color
- border-bottom-color
- border-left-color

Border-width

The `border-width` property is used with `border-style` to specify the width of the border on all four sides of an element. All the units of measurement can be used. In addition, the border width can be defined using the following relative terms.

- thin
- medium
- thick

The `border-width` property will have no effect unless the element has a `border-style` defined either in a style sheet or by the user agent (e.g, browser).

Syntax

```
selector {  
  border-style:value;  
  border-width:value;  
}
```

Specifying border-width by Side

Each side of an element can have a different border width. The properties for this are listed below:

- border-top-width
- border-right-width
- border-bottom-width
- border-left-width

Border

The border property is a shortcut property for specifying the width, style, and color in one step. There are similar shortcut properties for each border side: .

- border-top
- border-right
- border-bottom
- border-left

Syntax

```
selector {
  border: width style color;
}
```

As the code below shows, both block and inline elements can have borders.

Code Sample:

[BordersMarginsAndPadding/Demos/Borders.html](#)

```
<!DOCTYPE HTML>
<html>
<head>
<meta charset="UTF-8">
<title>CSS Borders</title>
</head>
<body>
<h1>CSS Borders</h1>
<h2>Border Width, Style and Color</h2>
<div style="border-width:1px; border-style:solid; border-color:#ff6600;">
  border-width:1px;<br>
  border-style:solid;<br>
  border-color:#ff6600;
</div>
<hr>
<div style="border-width:thick; border-style:dotted; border-color:#ff6600;">
  border-width:thick;<br>
  border-style:dotted;<br>
  border-color:#ff6600;
</div>
```

```

<hr>
<div style="border-top-width:thick; border-right-width:thin;
    border-bottom-width:thin; border-left-width:thick;
    border-style:dashed; border-color:#ff6600;">
border-top-width:thick;<br>
border-right-width:thin;<br>
border-bottom-width:thin;<br>
border-left-width:thick;<br>
border-style:dashed;<br>
border-color:#ff6600;
</div>
<hr>
<div style="border:5px solid #ff6600">
border:5px solid #ff6600
</div>
<hr>

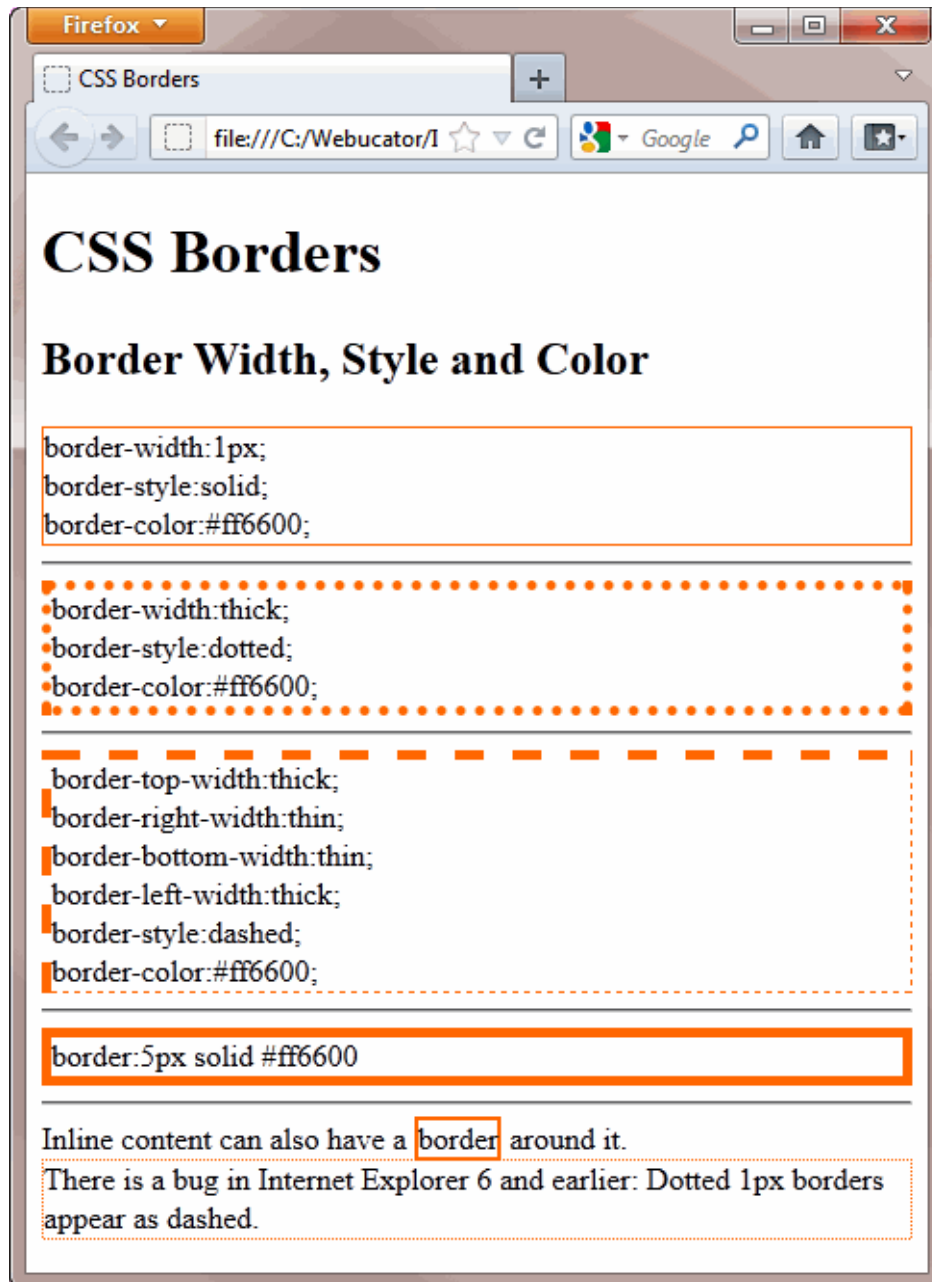
<div>Inline content can also have a
  <span style="border:2px solid #ff6600">border</span> around it.
</div>

<div style="border:1px dotted #ff6600">
  There is a bug in Internet Explorer 6 and earlier: Dotted 1px borders appear as dashed.
</div>

</body>
</html>

```

The above code will render the following results.



Lesson 1, Activity 4: **Margin**

The `margin` property is used to specify the margin around an element. It can be applied to both block and inline elements. Margins can be specified in number of units (e.g, 20px) or in percentage of the *width* of the containing element.

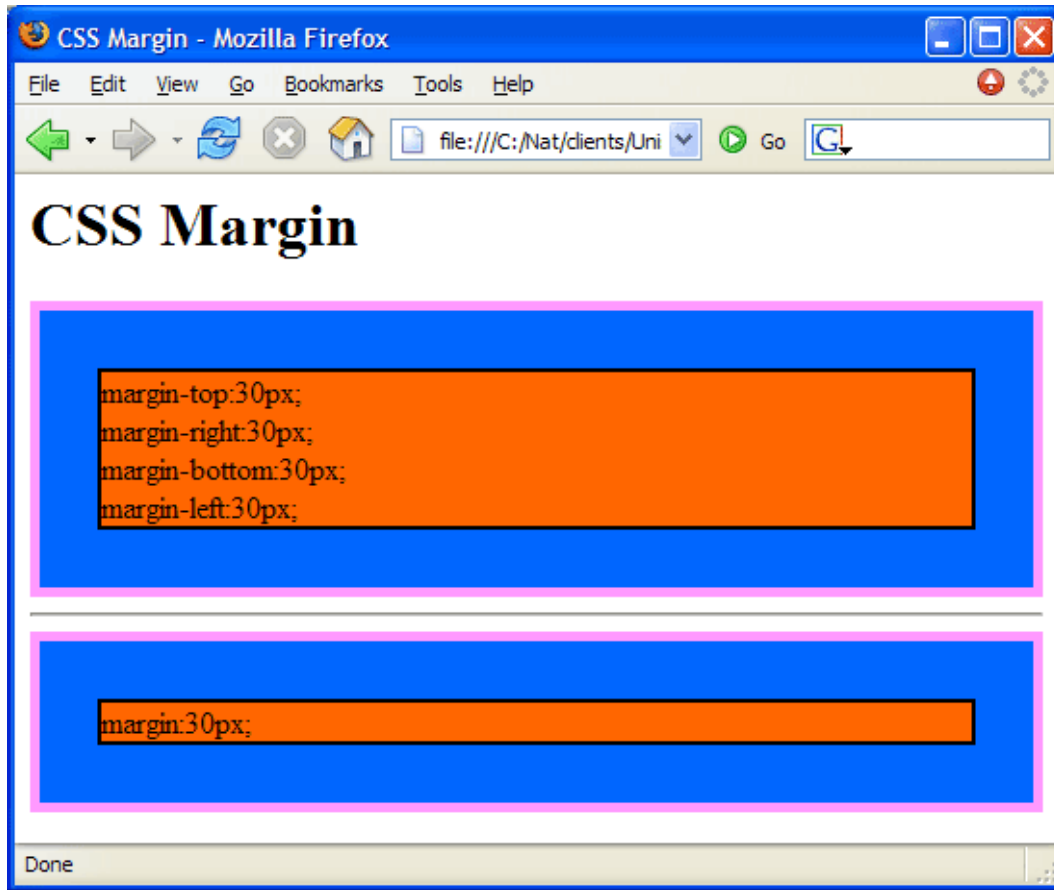
Code Sample:

BordersMarginsAndPadding/Demos/Margin.html

```
<!DOCTYPE HTML>
<html>
<head>
<meta charset="UTF-8">
<title>CSS Margin</title>
</head>
<body>
<h1>CSS Margin</h1>
<div style="background-color:#0066ff;
  border:5px solid #ff99ff; padding:0px;">
  <div style="background-color:#ff6600; border:2px solid black;
    margin-top:30px; margin-right:30px;
    margin-bottom:30px; margin-left:30px;">
    margin-top:30px;<br>
    margin-right:30px;<br>
    margin-bottom:30px;<br>
    margin-left:30px;
  </div>
</div>
</div>
<hr>
<div style="background-color:#0066ff;
  border:5px solid #ff99ff; padding:0px;">
  <div style="background-color:#ff6600;
    border:2px solid black; margin:30px;">
    margin:30px;
  </div>
</div>

</body>
</html>
```

The above code will render the following results.



Specifying Margins by Side

Each side of an element can have a different margin. The properties for this are listed below.

- margin-top
- margin-right
- margin-bottom
- margin-left

Padding

The padding property is used to specify the padding between an element's edges and its content. It can be applied to both block and inline elements. Padding can be specified in number of units (e.g, 20px) or in percentage of the width of the containing element.

Code Sample:

[BordersMarginsAndPadding/Demos/Padding.html](#)

```
<!DOCTYPE HTML>
<html>
<head>
<meta charset="UTF-8">
<title>CSS Padding</title>
```

```

</head>
<body>
<h1>CSS Padding</h1>
<div style="background-color:#0066ff; border:5px solid #ff99ff; padding:0px;">
  <div style="background-color:#ff6600; border:2px solid black;
    margin:0px; padding-top:30px; padding-right:30px;
    padding-bottom:30px; padding-left:30px;">
    padding-top:30px;<br>
    padding-right:30px;<br>
    padding-bottom:30px;<br>
    padding-left:30px;
  </div>
</div>
<hr>
<div style="background-color:#0066ff; border:5px solid #ff99ff; padding:0px;">
  <div style="background-color:#ff6600; border:2px solid black; margin:0px; padding:30px;">
    padding:30px;
  </div>
</div>

</body>
</html>

```

The above code will render the following results.



Specifying Padding by Side

Each side of an element can have a different padding. The properties for this are listed below.

- padding-top
- padding-right
- padding-bottom
- padding-left

Lesson 1, Activity 6: **Borders, Margin and Padding**

Duration: 10 to 20 minutes.

In this exercise, you will continue to work on [Stories.html](#) by applying borders, margin and padding to different elements on the page.

1. Open [Links/Exercises/Stories.html](#), which you were working on in the last lesson and save it in the [BordersMarginsAndPadding/Exercises](#) directory.
2. Modify the text properties of the different elements on the page. You may do this using inline styles, an embedded style sheet and/or an external style sheet. You are also welcome to add tags to the page. The object of this exercise is to get used to working with borders, margin and padding.
3. When you are done, open [Stories.html](#) in your browser to see the results. You are welcome to go back to the code and continue to work.

Solution:

BordersMarginsAndPadding/Solutions/Stories.html

```
<html>
<head>
<title>Stories</title>
<style type="text/css">
  h1
  {
    font-family: Arial, Helvetica, sans-serif;
    font-size: x-large;
  }

  h2
  {
    font-family: Arial, Helvetica, sans-serif;
    font-size: large;
    font-style: italic;
    font-weight: normal;
    letter-spacing: .25em;
    word-spacing: .4em;
    margin-bottom: 0px;
    text-align: center;
  }

  p
  {
    font-family: "Comic Sans MS", Times, serif;
    font-size: small;
    line-height: 1.2;
    text-indent: 2em;
  }

  a
  {
    font-style: italic;
```

```

    font-weight: bold;
}

.topLink
{
    font-family: "Comic Sans MS";
    font-size: medium;
    font-variant: small-caps;
    font-style: normal;
    font-weight: normal;
}

.BackToTop
{
    text-decoration: none;
    text-transform: capitalize;
    border-style: groove;
    border-color: #0000ff;
    border-bottom-width: 5px;
    border-left-width: 5px;
    border-top-width: 2px;
    border-right-width: 2px;
    padding: 4px;
}

div
{
    padding-top: 2px;
    padding-left: 10px;
    padding-right: 10px;
    padding-bottom: 2px;
    margin-bottom: 15px;
}

body
{
    margin: 0px;
    border: 40px ridge #cc6666;
    padding: 15px;
    background-color: #ffff99;
}
</style>
</head>
<body>

<h1 name="top">Stories</h1>
<a href="#pooh" class="topLink">Pooh Goes Visiting</a><br>
<a href="#alice" class="topLink">A Mad Tea-Party</a><br>
<a href="#naughtyboy" class="topLink">The Naughty Boy</a><br>

<hr>

<h2 name="pooh">POOH GOES VISITING - A.A. Milne</h2>
<div style="background-image: url(Images/poohsmall.gif);
    background-repeat: no-repeat; background-color:#ff9900;

```

```

    color:#000066;">
<p>Pooh always liked a little something
---- C O D E   O M I T T E D ----
    and said to himself 'Silly Old Bear! '</p>
</div>
<a href="#top" class="BackToTop">Back to top</a>

<hr>

<h2 name="alice">A MAD TEA-PARTY - Lewis Carroll</h2>
<div style="background-image: url(Images/TeaParty.gif);
    background-position:right; background-repeat: no-repeat;">
<p>There was a table set out under a tree
---- C O D E   O M I T T E D ----
that's the same thing, you know.'</p>
</div>
<a href="#top" class="BackToTop">Back to top</a>

<hr>

<a name="naughtyboy"></a><h2>THE NAUGHTY BOY - Hans Christian Andersen</h2>

<div style="background-image: url(Images/Cupid.gif); color:#ff3333;">
<p>Along time ago, there lived an old poet,
---- C O D E   O M I T T E D ----
    and you know, too, how ill-behaved he is!</p>
</div>
<a href="#top" class="BackToTop">Back to top</a>
</body>
</html>

```


Lesson 1, Activity 7: **Margin**

The `margin` property is used to specify the margin around an element. It can be applied to both block and inline elements. Margins can be specified in number of units (e.g, 20px) or in percentage of the *width* of the containing element.

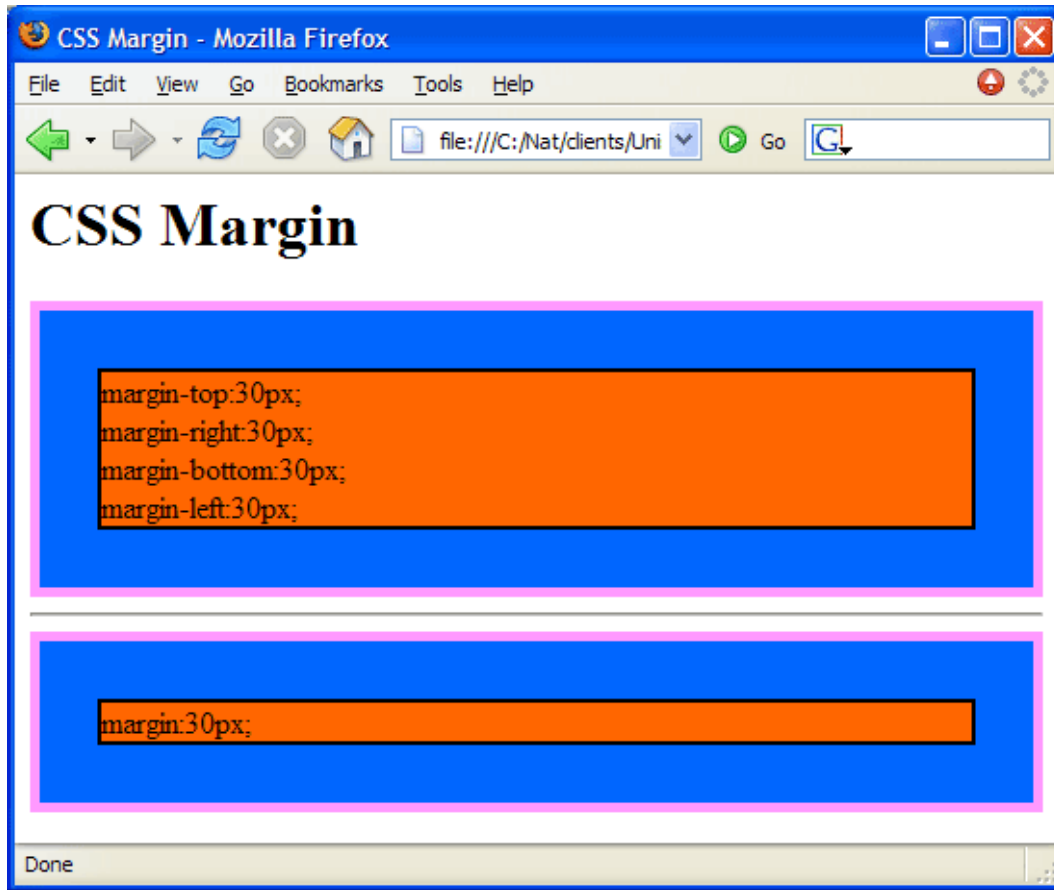
Code Sample:

BordersMarginsAndPadding/Demos/Margin.html

```
<!DOCTYPE HTML>
<html>
<head>
<meta charset="UTF-8">
<title>CSS Margin</title>
</head>
<body>
<h1>CSS Margin</h1>
<div style="background-color:#0066ff;
  border:5px solid #ff99ff; padding:0px;">
  <div style="background-color:#ff6600; border:2px solid black;
    margin-top:30px; margin-right:30px;
    margin-bottom:30px; margin-left:30px;">
    margin-top:30px;<br>
    margin-right:30px;<br>
    margin-bottom:30px;<br>
    margin-left:30px;
  </div>
</div>
</div>
<hr>
<div style="background-color:#0066ff;
  border:5px solid #ff99ff; padding:0px;">
  <div style="background-color:#ff6600;
    border:2px solid black; margin:30px;">
    margin:30px;
  </div>
</div>

</body>
</html>
```

The above code will render the following results.



Specifying Margins by Side

Each side of an element can have a different margin. The properties for this are listed below.

- `margin-top`
- `margin-right`
- `margin-bottom`
- `margin-left`