

List Properties

PropertyDescription

- **list-style-image** → Specifies an image as the list-item marker
- **list-style-position** → Specifies if the list-item markers should appear *inside* or *outside* the content flow
- **list-style-type** → Specifies the type of list-item marker
- **list-style** → Sets all the properties for a list in one declaration

list-style: *list-style-type* / *list-style-position* / *list-style-image*

```
<html> <head>
<style type="text/css">
ul.a {list-style-type:circle;}
ul.b {list-style-type:disc;}
ul.c {list-style-type:square;}
ol.f {list-style-type:decimal;}
ol.g {list-style-type:decimal-leading-
    zero;}
ol.n {list-style-type:lower-alpha;}
ol.q {list-style-type:lower-roman;}
ol.r {list-style-type:upper-alpha;}
```

```
ol.t {list-style-type:upper-roman;}
ol.u {list-style-type:none;}
ol.v {list-style-image:
    url("sqpurple.gif");}
</style> </head>
<body>
<ul class="a">
<li>Circle type</li> </ul>
<ul class="b">
<li>Disc type</li> </ul>
```

```
<ul class="c">
<li>Square type</li></ul>
<ol class="f">
<li>Decimal type</li></ol>
<ol class="g">
<li>Decimal-leading-zero type</li>
</ol>
<ol class="n">
<li>Lower-alpha type</li> </ol>
<ol class="q">
<li>Lower-roman type</li>
</ol>
```

```
<ol class="r">
<li>Upper-alpha type</li>
</ol>
<ol class="t">
<li>Upper-roman type</li>
</ol>
<ol class="u">
<li>None type</li>
</ol>
<ol class="v">
<li>Image type</li>
</ol>
</body> </html>
```

- **Syntax**
- The syntax of pseudo-classes:
 - `selector:pseudo-class {property: value}`
- CSS classes can also be used with pseudo-classes:
 - `selector.class:pseudo-class {property: value}`
- Ex:
 - `a:link {color: #FF0000} /* unvisited link */`
 - `a:visited {color: #00FF00} /* visited link */`
 - `a:hover {color: #FF00FF} /* mouse over link */`
 - `a:active {color: #0000FF} /* selected link */`

Link Properties

- The four links states are:

1. a:link - a normal, unvisited link
2. a:visited - a link the user has visited
3. a:hover - a link when the user mouse over it
4. a:active - a link the moment it is clicked

```
a:link {color:#FF0000;} /* unvisited link */  
a:visited {color:#00FF00;} /* visited link */  
a:hover {color:#FF00FF;} /* mouse over link */  
a:active {color:#0000FF;} /* selected link */
```

- When setting the style for several link states, there are some order rules:

a:hover MUST come after a:link and a:visited
a:active MUST come after a:hover

Text Decoration

```
a:link {text-decoration:none;}
```

```
a:visited {text-decoration:none;}
```

```
a:hover {text-decoration:underline;}
```

```
a:active {text-decoration:underline;}
```

Background Color

The background-color property specifies the background color for links:

```
a:link {background-color:#B2FF99;}
```

```
<html> <head>
<style type="text/css">
a.one:link {color:#ff0000;}
a.one:visited {color:#0000ff;}
a.one:hover {color:#ffcc00;}
a.two:link {color:#ff0000;}
a.two:visited {color:#0000ff;}
a.two:hover {font-size:150%;}
a.three:link {color:#ff0000;}
a.three:visited {color:#0000ff;}
a.three:hover {background:#66ff66;}
a.four:link {color:#ff0000;}
a.four:visited {color:#0000ff;}
a.four:hover {font-family:monospace;}
a.five:link { color:#ff0000;
text-decoration:none;}
```

```
a.five:visited {color:#0000ff;
text-decoration:none;}
a.five:hover{text-decoration:underline;}
a.six:link,a.six:visited
{ display:block;
font-weight:bold;
color:#FFFFFF;
background-color:#98bf21;
width:120px;
text-align:center;
padding:4px;
text-decoration:none;}
a.six:hover,a.six:active
{ background-color:#7A991A;
text-decoration:underline;}
</style> </head>
```

```
<body>
```

```
<p>Mouse over the links to see them change layout.</p>
```

```
<p><b><a class="one" href="default.asp" target="_blank">This link  
changes color</a></b></p>
```

```
<p><b><a class="two" href="default.asp" target="_blank">This link  
changes font-size</a></b></p>
```

```
<p><b><a class="three" href="default.asp" target="_blank">This link  
changes background-color</a></b></p>
```

```
<p><b><a class="four" href="default.asp" target="_blank">This link  
changes font-family</a></b></p>
```

```
<p><b><a class="five" href="default.asp" target="_blank">This link  
changes text-decoration</a></b></p>
```

```
<p><b><a class="six" href="../tutorial.html" target="_blank">This  
link changes Box Color</a></b></p>
```

```
</body></html>
```


width and height property

- The height and width
 - *auto* (this is default. Means that the browser calculates the height and width),
 - *length values*, like px, cm, etc., or in percent (%) of the containing block.

```
<style>
div {
    height: 100px;
    width: 500px;
    background-color: powderblue;
}
</style>
<body>
<h2>Set the height and width of an element</h2>
<p>This div element has a height of 100px and a width of 500px:</p>
<div></div>
</body>
</html>
```

Table Properties

Table Borders

```
table, th, td  
{  
border: 1px solid red;  
}
```

- Notice that the table in the example above has double borders. This is because both the table and the th/td elements have separate borders.
- To display a single border for the table, use the border-collapse property.

Collapse Borders

- The border-collapse property sets whether the table borders are **collapse** into a single border or **separated or initial**:

border-collapse: separate / collapse / initial

table

{

border-collapse:collapse;

}

table, td, th

{

border:1px solid red;

}

Table Width and Height

- Width and height of a table is defined by the width and height properties.

table

{

width:100%;

}

th

{

height:50px;

}

Table Text Alignment

- The text in a table is aligned with the text-align and vertical-align properties.
- The text-align property sets the horizontal alignment, like left, right, or center

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

- The vertical-align property sets the vertical alignment, like top, bottom, or middle:

```
td
{
height:50px;
vertical-align:bottom;
}
```

Table Padding

- To control the space between the border and content in a table, use the padding property on td and th elements:

```
td
{
padding:15px;
}
```

Table Color

- The example below specifies the color of the borders, and the text and background color of th elements:

```
table, td, th
{
border:1px solid green;
}
th
{
background-color:green;
color:white;
}
```

Table border-spacing

- The distance between the borders of adjacent cells: **border-spacing: *length* | initial**

```
table.ex1 {  
border-collapse: separate;  
border-spacing: 10px;}  
table.ex2 {  
border-collapse: separate;  
border-spacing: 10px 50px;  
}
```

Table caption-side

- The **caption-side** property specifies the placement of a table caption.

caption-side: top | bottom | initial

- table, td, th**
{
border: 1px solid green;
}
th
{
background-color: green;
color: white;
}

Table empty-cells

- Sets whether or not to display borders and background on empty cells in a table

empty-cells: show | hide | initial

```
table {  
  border-collapse: separate;  
  empty-cells: hide;  
}
```

```

<html> <head>
<style type="text/css">
table
{
    border-collapse:collapse;
    width:50%; }

th
{
    height:50px;
    vertical-align:center; }

td
{
    text-align:right; }
table,th,td
{
    border:1px solid red;
}
</style> </head>

```

```

<body>
<table>
<tr>
    <th>Student Name</th>
    <th>Seminar Topic</th>
</tr>
<tr>
    <td>Madhusuthanan P</td>
    <td>Internet, Intranet and
        WWW</td>
</tr>
<tr>
    <td>Roopa S</td>
    <td>Internet Protocols</td>
</tr>
</table> </body> </html>

```


BOX MODEL

In CSS, the term "box model" is used when talking about design and layout. It is essentially a box that wraps around HTML elements.

- **Margin** - Clears an area around the border. The margin does not have a background color, it is completely transparent .
- **Border** - A border that goes around the padding and content. The border is affected by the background color of the box.
- **Padding** - Clears an area around the content. The padding is affected by the background color of the box.
- **Content** - The content of the box, where text and images appear.



Width and Height of an Element

- When you set the width and height properties of an element with CSS, you just set the width and height of the **content area**.
- The total width of an element should be calculated like this:
Total element width = width + left padding + right padding + left border + right border + left margin + right margin
- The total height of an element should be calculated like this:
Total element height = height + top padding + bottom padding + top border + bottom border + top margin + bottom margin
- Example:
`width:250px;
padding:10px;
border:5px solid gray;
margin:10px;`

Browsers Compatibility Issue

- The example above does not display properly in IE8 and earlier versions.
- IE8 and earlier versions includes padding and border in the width, if a **DOCTYPE is NOT declared**.
- To fix this problem, just add a DOCTYPE to the first line of HTML page:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML  
1.0 Transitional//EN"  
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-  
transitional.dtd">
```

Border Width

- The border-width property specifies the width of the four borders. (in px, pt, cm, em, etc) or by using one of the three pre-defined values: thin, medium, or thick.
- The border-width property can have from one to four values (for the top border, right border, bottom border, and the left border).

border-style: solid;

border-width: 5px;

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

- border-width
- border-style (required)
- border-color

Border Properties

It allows you to specify the style and color of an element's border.

Border Style

- The **border-style** property specifies what kind of border to display.
 - dotted
 - dashed
 - solid
 - double
 - groove
 - ridge
 - inset
 - outset

Border Color

- The **border-color** property is used to set the color of the border. The color can be set by:
- You can also set the border color to **"transparent"**.
- **Note:** The **"border-color"** property does not work if it is used alone. Use the **"border-style"** property to set the borders first.

Border - Individual sides

- In CSS it is possible to specify different borders for different sides.

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

- The **border-style** property can have from one to four values.

Example:

➤ **border-style:dotted solid double dashed;**

- top border is dotted
- right border is solid
- bottom border is double
- left border is dashed

➤ **border-style:dotted solid double;**

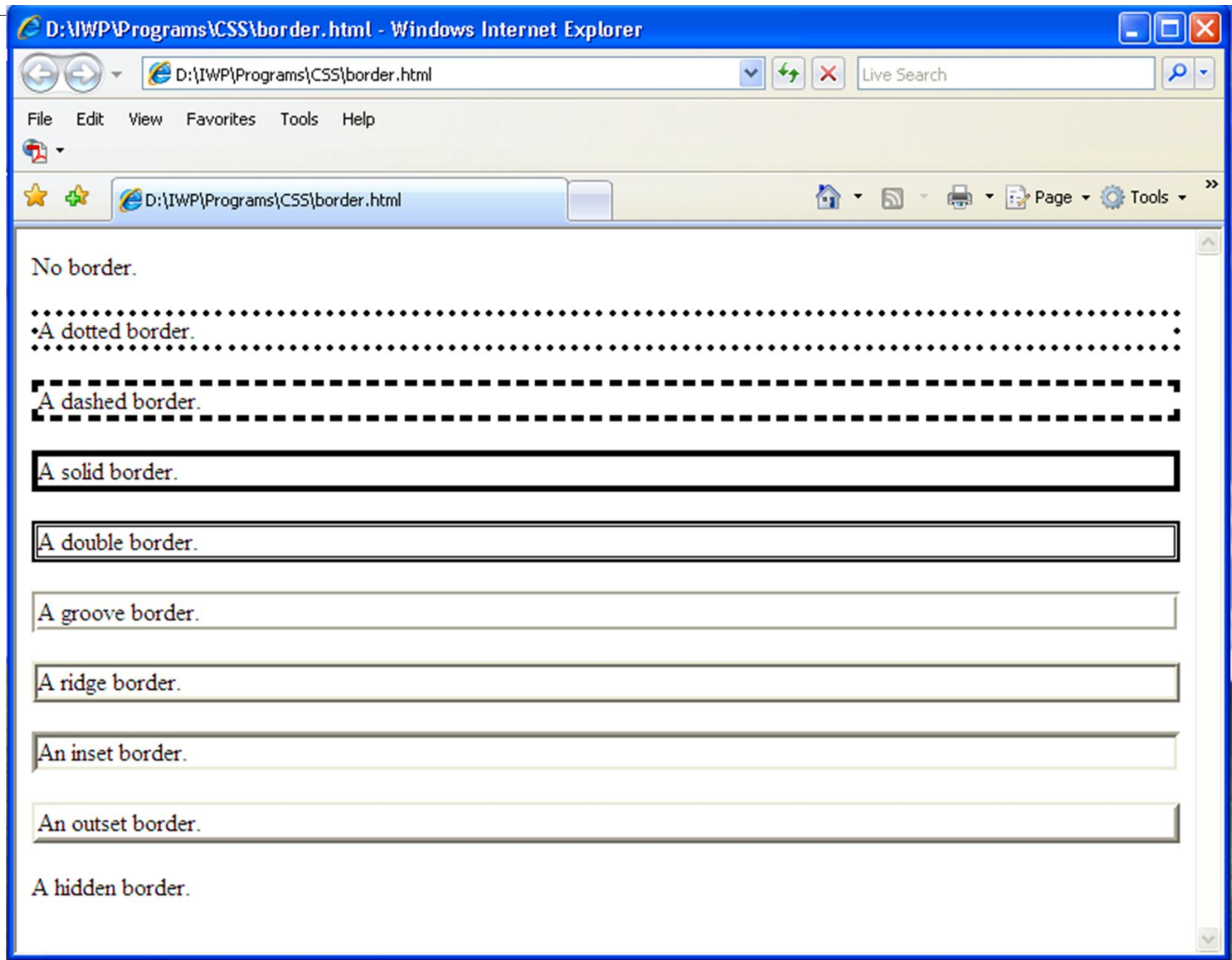
- top border is dotted
- right and left borders are solid
- bottom border is double

➤ **border-style:dotted solid;**

- top and bottom borders are dotted
- right and left borders are solid

➤ **border-style:dotted;**

- all four borders are dotted



Border

- border-top
 - border-top-width, border-top-style, border-top-color
- border-right
 - border-right-width, border-right-style, border-right-color
- border-bottom
 - border-bottom-width, border-bottom-style, border-bottom-color
- border-left
 - border-left-width, border-left-style, border-left-color

border-radius - > to add rounded borders to an element

```
p {  
  border: 2px solid red;  
  border-radius: 5px;  
}
```


Margin

- The margin clears an area around an element (outside the border). The margin does not have a background color, and is **completely transparent**.
- The top, right, bottom, and left margin can be changed independently using separate properties. A shorthand margin property can also be used, to change all margins at once.

margin-top:100px;
margin-bottom:100px;
margin-right:50px;
margin-left:50px;

Margin - Shorthand property

Example:

- **margin:25px 50px 75px 100px;**
 - top margin is 25px
 - right margin is 50px
 - bottom margin is 75px
 - left margin is 100px
- **margin:25px 50px 75px;**
 - top margin is 25px
 - right and left margins are 50px
 - bottom margin is 75px
- **margin:25px 50px;**
 - top and bottom margins are 25px
 - right and left margins are 50px
- **margin:25px;**
 - all four margins are 25px

Padding

- The padding clears an area around the content (inside the border) of an element. The padding is affected by the background color of the element.
- The top, right, bottom, and left padding can be changed independently using separate properties. A shorthand padding property can also be used, to change all paddings at once.

```
padding-top:25px;  
padding-bottom:25px;  
padding-right:50px;  
padding-left:50px;
```

Padding - Shorthand property

Example:

- **padding:25px 50px 75px 100px;**
 - top padding is 25px
 - right padding is 50px
 - bottom padding is 75px
 - left padding is 100px
- **padding:25px 50px 75px;**
 - top padding is 25px
 - right and left paddings are 50px
 - bottom padding is 75px
- **padding:25px 50px;**
 - top and bottom paddings are 25px
 - right and left paddings are 50px
- **padding:25px;**
 - all four paddings are 25px