

■ This property specifies the background color of an element.

```
<style>
body
{
   background-color: #b0c4de;
}
</style>
```

- Webpage bg_color
- With CSS, a color is most often specified by:
 - □ a HEX value like "#ff0000"
 - □ an RGB value like "rgb(255,0,0)"
 - □ a color name like "red"

- CSS color values:
- Colors in CSS can be specified by the following methods:
 - Hexadecimal colors
 - □ RGB colors
 - □ RGBA colors
 - ☐ HSL colors
 - ☐ HSLA colors
 - □ Predefined/Cross-browser color names

- Hexadecimal colors:
- Hexadecimal color values are supported in all major browsers.
- A hexadecimal color is specified with: #RRGGBB, where the RR (red), GG (green) and BB (blue) hexadecimal integers specify the components of the color. All values must be between 00 and FF.
- For example, the #0000ff value is rendered as blue, because the blue component is set to its highest value (ff) and the others are set to 00.
- Hexa_example

- RGB colors:
- RGB color values are supported in all major browsers.
- An RGB color value is specified with: rgb(red, green, blue). Each parameter (red, green, and blue) defines the intensity of the color and can be an integer between 0 and 255 or a percentage value (from 0% to 100%).
- For example, the rgb(0,0,255) value is rendered as blue, because the blue parameter is set to its highest value (255) and the others are set to 0.
- Also, the following values define equal color: rgb(0,0,255) and rgb(0%,0%,100%).
- RGB color example

RGBA colors:

- RGBA color values are supported in IE9+, Firefox 3+, Chrome, Safari, and in Opera 10+.
- RGBA color values are an extension of RGB color values with an alpha channel - which specifies the opacity of the object.
- An RGBA color value is specified with: rgba(red, green, blue, alpha). The alpha parameter is a number between 0.0 (fully transparent) and 1.0 (fully opaque).
- RGBA example

- HSL colors:
- HSL color values are supported in IE9+, Firefox, Chrome, Safari, and in Opera 10+.
- HSL stands for hue, saturation, and lightness and represents a cylindrical-coordinate representation of colors.
- An HSL color value is specified with: hsl(hue, saturation, lightness).
- Hue is a degree on the color wheel (from 0 to 360) 0 (or 360) is red, 120 is green, 240 is blue. Saturation is a percentage value; 0% means a shade of gray and 100% is the full color. Lightness is also a percentage; 0% is black, 100% is white.
- HSL example

- HSLA colors:
- HSLA color values are supported in IE9+, Firefox 3+, Chrome, Safari, and in Opera 10+.
- HSLA color values are an extension of HSL color values with an alpha channel which specifies the opacity of the object.
- An HSLA color value is specified with: hsla(hue, saturation, lightness, alpha), where the alpha parameter defines the opacity. The alpha parameter is a number between 0.0 (fully transparent) and 1.0 (fully opaque).
- HSLA example

- Colors with different color groups:
- Around 140 different color shades are possible.

Pink Colors

Name	HEX	Color
<u>LavenderBlush</u>	<u>#FFF0F5</u>	
<u>MistyRose</u>	#FFE4E1	
<u>Pink</u>	#FFC0CB	
<u>LightPink</u>	#FFB6C1	
<u>HotPink</u>	#FF69B4	
<u>DeepPink</u>	#FF1493	
<u>PaleVioletRed</u>	#DB7093	
MediumVioletRed	#C71585	

Colors with different color groups:

Purple Colors

Name	HEX	Color
<u>Lavender</u>	#E6E6FA	
<u>Thistle</u>	#D8BFD8	
Plum	#DDA0DD	
<u>Violet</u>	#EE82EE	
<u>Orchid</u>	#DA70D6	
<u>Fuchsia</u>	#FF00FF	
<u>Magenta</u>	#FF00FF	
<u>MediumOrchid</u>	#BA55D3	
<u>MediumPurple</u>	#9370DB	
BlueViolet	#8A2BE2	
<u>DarkViolet</u>	#9400D3	
<u>DarkOrchid</u>	#9932CC	
<u>DarkMagenta</u>	#8B008B	
<u>Purple</u>	<u>#800080</u>	
<u>Indigo</u>	#4B0082	
<u>DarkSlateBlue</u>	#483D8B	
<u>RebeccaPurple</u>	<u>#663399</u>	
<u>SlateBlue</u>	#6A5ACD	
<u>MediumSlateBlue</u>	#7B68EE	

Colors with different color groups:

Red Colors

Name	HEX	Color
LightSalmon	#FFA07A	
Salmon	#FA8072	
DarkSalmon	#E9967A	
LightCoral	#F08080	
IndianRed	#CD5C5C	
Crimson	#DC143C	
<u>FireBrick</u>	#B22222	
<u>DarkRed</u>	#8B0000	
Red	#FF0000	

Orange Colors

Name	HEX	Color
<u>OrangeRed</u>	#FF4500	
<u>Tomato</u>	#FF6347	
Coral	#FF7F50	
<u>DarkOrange</u>	#FF8C00	
<u>Orange</u>	#FFA500	

Colors with different color groups:

Yellow Colors

Name	HEX	Color
Gold	#FFD700	
<u>Yellow</u>	#FFFF00	
<u>LightYellow</u>	#FFFFE0	
<u>LemonChiffon</u>	#FFFACD	
LightGoldenrodYellow	#FAFAD2	
<u>PapayaWhip</u>	#FFEFD5	
Moccasin	#FFE4B5	
PeachPuff	#FFDAB9	
PaleGoldenrod	#EEE8AA	
Khaki	#FFA500	
<u>DarkKhaki</u>	#BDB76B	

Colors with different color groups:

Brown Colors

Name	HEX	Color
Cornsilk	#FFF8DC	
BlanchedAlmon	#FFEBCD	
Bisque	#FFE4C4	
<u>NavajoWhite</u>	#FFDEAD	
Wheat	#F5DEB3	
BurlyWood	#DEB887	
<u>Tan</u>	#D2B48C	
RosyBrown	#BC8F8F	
SandyBrown	#F4A460	
Goldenrod	#DAA520	
DarkGoldenrod	#B8860B	
<u>Peru</u>	#CD853F	
<u>Chocolate</u>	#D2691E	
SaddleBrown	#8B4513	
Sienna	#A0522D	
Brown	#A52A2A	
Maroon	#800000	

Colors with different color groups:

Green Colors

Name	HEX	Color
<u>DarkOliveGreen</u>	#556B2F	
Olive	#808000	
<u>OliveDrab</u>	#6B8E23	
YellowGreen	#9ACD32	
LimeGreen	#32CD32	
<u>Lime</u>	#00FF00	
<u>LawnGreen</u>	#7CFC00	
<u>Chartreuse</u>	#7FFF00	
GreenYellow	#ADFF2F	
<u>SpringGreen</u>	#00FF7F	
<u>MediumSpringGreen</u>	#00FA9A	
<u>LightGreen</u>	#90EE90	
<u>PaleGreen</u>	#98FB98	
<u>DarkSeaGreen</u>	#8FBC8F	
<u>MediumSeaGreen</u>	#3CB371	
SeaGreen	#2E8B57	
ForestGreen	#228B22	
<u>Green</u>	#008000	
<u>DarkGreen</u>	#006400	

Colors with different color groups:

Cyan Colors

Name	HEX	Color
<u>MediumAquamarine</u>	#66CDAA	
Aqua	#00FFFF	
Cyan	#00FFFF	
<u>LightCyan</u>	#E0FFFF	
Azure	#F0FFFF	
<u>PaleTurquoise</u>	#AFEEEE	
<u>Aquamarine</u>	#7FFFD4	
Turquoise	#40E0D0	
<u>MediumTurquoise</u>	#48D1CC	
<u>DarkTurquoise</u>	#00CED1	
<u>LightSeaGreen</u>	#20B2AA	
CadetBlue	#5F9EA0	
<u>DarkCyan</u>	#008B8B	
<u>Teal</u>	<u>#008080</u>	

Colors with different color groups:

Blue Colors

Name	HEX	Color	ì
<u>LightSteelBlue</u>	#B0C4DE		
<u>PowderBlue</u>	#B0E0E6		1
LightBlue	#ADD8E6		
SkyBlue	#87CEEB		:
<u>LightSkyBlue</u>	#87CEFA		
<u>DeepSkyBlue</u>	#00BFFF		:
<u>DodgerBlue</u>	#1E90FF		
CornflowerBlue	#6495ED		:
SteelBlue	#4682B4		
<u>RoyalBlue</u>	#4169E1		:
Blue	#0000FF		1
<u>MediumBlue</u>	#0000CD		:
<u>DarkBlue</u>	#00008B		1
Navy	<u>#000080</u>		:
<u>MidnightBlue</u>	<u>#191970</u>		

Colors with different color groups:

Gray Colors

Name	HEX	Color
<u>Gainsboro</u>	#DCDCDC	
<u>LightGrey</u>	#D3D3D3	
Silver	#C0C0C0	
DarkGray	#A9A9A9	
Gray	#808080	
DimGray	<u>#696969</u>	
<u>LightSlateGray</u>	<u>#778899</u>	
SlateGray	<u>#708090</u>	
<u>DarkSlateGray</u>	#2F4F4F	
Black	#000000	

Colors with different color groups:

White Colors

Name	HEX
<u>White</u>	#FFFFF
Snow	#FFFAFA
<u>Honeydew</u>	#F0FFF0
<u>MintCream</u>	#F5FFFA
<u>AliceBlue</u>	#F0F8FF
<u>GhostWhite</u>	<u>#F8F8FF</u>
<u>WhiteSmoke</u>	<u>#F5F5F5</u>
Seashell	#FFF5EE
<u>Beige</u>	#F5F5DC
OldLace	#FDF5E6
<u>FloralWhite</u>	#FFFAF0
Ivory	#FFFFF0
<u>AntiqueWhite</u>	#FAEBD7
<u>Linen</u>	#FAF0E6

CSS Background Image:

- This property specifies an image to use as the background of an element.
- By default, the image is repeated so it covers the entire element.

```
body
```

```
background-image: url("demo.jpg");
}
```

Bg_image example

CSS Background Image:

- This property specifies an image to use as the background of an element.
- By default, the image is repeated so it covers the entire element.

```
body
```

```
background-image: url("demo.jpg");
}
```

Bg_image example

Background Image - Repeat Horizontally or Vertically

■ By default, the background image property repeats an image both horizontally and vertically.

```
body
{
    background-image: url("gradient_bg.png");
    background-repeat: repeat-x;
}
Bg_image horizontal repeat
Bg_image vertical repeat
```

- Background Image Set position and no-repeat
- Showing the image only once is specified by this property.
- Bg_image no repeat & bad formatting
- Bg_image no repeat & good formatting

- Background Image Shorthand property
- As you can see from the examples above, there are many properties to consider when dealing with backgrounds.
- To shorten the code, it is also possible to specify all the properties in one single property. This is called a shorthand property.

```
body
{
   background: #ffffff url("img_tree.png") no-repeat right
top;
}
```

Bg_shorthand example

- Background Image Shorthand property
- When using the shorthand property the order of the property values is:
 - □ background-color
 - □ background-image
 - background-repeat
 - □ background-attachment
 - □ background-position
- It does not matter if one of the property values is missing, as long as the ones that are present are in this order

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Property	Description
background	Sets all the background properties in one declaration
<u>background-attachment</u>	Sets whether a background image is fixed or scrolls with the rest of the page
<u>background-color</u>	Sets the background color of an element
<u>background-image</u>	Sets the background image for an element
background-position	Sets the starting position of a background image
background-repeat	Sets how a background image will be repeated

- Background-attachment property
- Sets whether a background image is fixed or scrolls with the rest of the page. Example 1 and 2
 CSS Syntax

background-attachment: scroll|fixed|local|initial|inherit;

Property Values

Value	Description	
scroll	The background scrolls along with the element. This is default	
fixed	The background is fixed with regard to the viewport	
local	The background scrolls along with the element's contents	
initial	Sets this property to its default value.	
inherit	Inherits this property from its parent element.	

Task: Give examples for each of the property values mentioned in above table in one html page.

- background-clip Property
- The background-clip property specifies the painting area of the background. <u>Example</u>

CSS Syntax

background-clip: border-box|padding-box|content-box|initial|inherit;

Property Values

Value	Description
border-box	Default value. The background is clipped to the border box
padding-box	The background is clipped to the padding box
content-box	The background is clipped to the content box
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit

- background-origin Property
- The background-origin property specifies where the background image is positioned. **Note:** If the backgroundattachment property is set to "fixed", this property has no effect. <u>Example</u>

CSS Syntax

background-origin: padding-box|border-box|content-box|initial|inherit;

Property Values

Value	Description
padding-box	Default value. The background image starts from the upper left corner of the padding edge
border-box	The background image starts from the upper left corner of the border
content-box	The background image starts from the upper left corner of the content
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit

- background-position Property
- The background-position property sets the starting position of a background image.
- **Tip:** By default, a background-image is placed at the top-left corner of an element, and repeated both vertically and horizontally.
- Example

background-position Property

Property Values

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Value	Description
left top left center left bottom right top right center right bottom center top center center center bottom	If you only specify one keyword, the other value will be "center"
x% y%	The first value is the horizontal position and the second value is the vertical. The top left corner is 0% 0%. The right bottom corner is 100% 100%. If you only specify one value, the other value will be 50%. Default value is: 0% 0%
xpos ypos	The first value is the horizontal position and the second value is the vertical. The top left corner is 0 0. Units can be pixels (0px 0px) or any other <u>CSS units</u> . If you only specify one value, the other value will be 50%. You can mix % and positions
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit

- background-size Property
- Example

Property Values

Value	Description	
auto	Default value. The background-image contains its width and height	
length	Sets the width and height of the background image. The first value sets the width, the second value sets the height. If only one value is given, the second is set to "auto"	
percentage	Sets the width and height of the background image in percent of the parent element. The first value sets the width, the second value sets the height. If only one value is given, the second is set to "auto"	
cover	Scale the background image to be as large as possible so that the background area is completely covered by the background image. Some parts of the background image may not be in view within the background positioning area	
contain	Scale the image to the largest size such that both its width and its height can fit inside the content area	
initial	Sets this property to its default value. Read about initial	
inherit	Inherits this property from its parent element. Read about inherit	

CSS Selectors:

- In CSS, selectors are patterns used to select the element(s) you want to style.
- In following table some css selectors are mentioned which will be explored in coming sessions few are listed here:

Selector	Example description	CSS Version
.class	Selects all elements with class="given class name"	1
#id	Selects the element with id="given id"	1
*	Selects all elements	2
element	Selects all elements	1
element, element	Selects all <div> elements and all elements</div>	1
element + element	Selects all elements that are placed immediately after <div> elements</div>	2
element1∾element2	Selects every element that are preceded by a element	3
[attribute]	Selects all elements with a target attribute	2
[attribute=value]	Selects all elements with target="_blank"	2
[attribute~=value]	Selects all elements with a title attribute containing the word "flower"	2
[attribute =value]	Selects all elements with a lang attribute value starting with "en"	2
[attribute^=value]	Selects every <a> element whose <u>href</u> attribute value begins with "https"	3

CSS Selectors:

- CSS selectors allow you to select and manipulate HTML elements.
- CSS selectors are used to "find" (or select) HTML elements based on their id, class, type, attribute, and more.
- The element selector
 - □ p { color:yellow; text-align : center;}
- The id Selector
 - □ #main { color:yellow; text-align : center; }
 - □ Do **NOT** start an ID name with a number!

CSS Selectors: (contd...)

- The id Selector
- The id selector uses the id attribute of an HTML element to select a specific element.
- An id should be unique within a page, so the id selector is used if you want to select a single, unique element.
- To select an element with a specific id, write a hash character, followed by the id of the element.
- This style rule will be applied to the HTML element with id="para1": in eg.5
- css id selector

CSS Selectors: (contd...)

- **■** The class Selector
- The class selector selects elements with a specific class attribute.
- To select elements with a specific class, write a period character, followed by the name of the class:
- In the example below, all HTML elements with class="center" will be center-aligned:
- <u>css class selector</u>

CSS Selectors: (contd...)

- **■** The class Selector
- You can also specify that only specific HTML elements should be affected by a class.
- In the example below, all elements with class="center" will be center-aligned:
- css class selector with specific element affected

CSS Selectors: (contd...)

- Grouping the selectors
- If you have elements with the same style definitions, you can group the selectors, to minimize the code.
- To group selectors, separate each selector with a comma.
- Grouping the selectors

CSS Border Properties: (contd...)

- border-bottom-color Property
- The border-bottom-color property sets the color of an element's bottom border.
- Example

CSS Syntax

border-bottom-color: color|transparent|initial|inherit;

Value	Description
color	Specifies the background color. Look at <u>CSS Color Values</u> for a complete list of possible color values. Default color is the color of the element
transparent	Specifies that the border color should be transparent
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit



border-bottom-style Property

- The border-bottom-style property sets the style of an element's bottom border.
- Example

Value	Description
none	Specifies no border. This is default
hidden	The same as "none", except in border conflict resolution for table elements
dotted	Specifies a dotted border
dashed	Specifies a dashed border
solid	Specifies a solid border
double	Specifies a double border
groove	Specifies a 3D grooved border. The effect depends on the border-color value
ridge	Specifies a 3D ridged border. The effect depends on the border-color value
inset	Specifies a 3D inset border. The effect depends on the border-color value
outset	Specifies a 3D outset border. The effect depends on the border-color value
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit



border-bottom-width Property

- The border-bottom-width property sets the width of an element's bottom border.
- Example CSS Syntax

border-bottom-width: medium|thin|thick|length|initial|inherit;

Value	Description
medium	Specifies a medium bottom border. This is default
thin	Specifies a thin bottom border
thick	Specifies a thick bottom border
length	Allows you to define the thickness of the bottom border
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit

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border-bottom-left-radius Property

The border-bottom-left-radius property defines the shape of the border of the bottom-left corner. <u>Example</u>

CSS Syntax

```
border-bottom-left-radius: length |% [length |%] |initial | inherit;
```

Note: The two length or percentage values of the border-bottom-left-radius properties define the radii of a quarter ellipse that defines the shape of the corner of the outer border edge. The first value is the horizontal radius, the second the vertical radius. If the second value is omitted it is copied from the first. If either length is zero, the corner is square, not rounded. Percentages for the horizontal radius refer to the width of the border box, whereas percentages for the vertical radius refer to the height of the border box.

Value	Description	Play it
length	Defines the shape of the bottom-left corner. Default value is 0	Play it »
%	Defines the shape of the bottom-left corner in %	Play it »
initial	Sets this property to its default value. Read about initial	Play it »
inherit	Inherits this property from its parent element. Read about inherit	



border-bottom-right-radius Property

- The border-bottom-right-radius property defines the shape of the border of the bottom-right corner.
- Example
- Property values are same as border-bottom-leftradius property.



border-bottom Property

- The border-bottom shorthand property sets all the bottom border properties in one declaration.
- The properties that can be set, are (in order): border-bottom-width, border-bottom-style, and border-bottom-color.
- It does not matter if one of the values above are missing, e.g. border-bottom: solid #ff0000; is allowed.



border-bottom Property

CSS Syntax

border-bottom: border-width border-style border-color|initial|inherit;

Value	Description
border-bottom-width	Specifies the width of the bottom border. Default value is "medium"
border-bottom-style	Specifies the style of the bottom border. Default value is "none"
border-bottom-color	Specifies the color of the bottom border. Default value is the color of the element
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit

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border-collapse Property

■ The border-collapse property sets whether the table borders are collapsed into a single border or detached as in standard HTML.

Example

CSS Syntax

border-collapse: separate|collapse|initial|inherit;

Value	Description
separate	Borders are detached (border-spacing and empty-cells properties will not be ignored). This is default
collapse	Borders are collapsed into a single border when possible (border-spacing and empty-cells properties will be ignored)
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit

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border-color Property

Definition and Usage

The border-color property sets the color of an element's four borders. This property can have from one to four values

Examples:

· border-color:red green blue pink;

- o top border is red
- o right border is green
- o bottom border is blue
- o left border is pink

border-color:red green blue;

- o top border is red
- o right and left borders are green
- bottom border is blue

border-color:red green;

- o top and bottom borders are red
- o right and left borders are green

border-color:red;

o all four borders are red

Note: Always declare the border-style property before the border-color property. An element must have borders before you can change the color.



- border-color Property
- Example

CSS Syntax

border-color: color|transparent|initial|inherit;

Value	Description
color	Specifies the background color. Look at <u>CSS Color Values</u> for a complete list of possible color values. Default color is black
transparent	Specifies that the border color should be transparent
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit



- Following properties are similar to border-bottom-* properties
 - Border-left
 - □ Border-left-color
 - □ Border-left-style
 - □ Border-left-width
 - Border-right
 - □ Border-right-color
 - **■** Border-right-style
 - □ Border-right-width
 - □ Border-top
 - □ Border-top-color
 - □ Border-top-style
 - □ Border-top-width
 - □ Border-top-left-radius
 - □ Border-top-right-radius

border-radius Property

- The border-radius property is a shorthand property for setting the four border-*-radius properties.
- Example

CSS Syntax

```
border-radius: 1-4 length |\%| / 1-4 length |\%| initial|inherit;
```

Note: The four values for each radii are given in the order top-left, top-right, bottom-right, bottom-left. If bottom-left is omitted it is the same as top-right. If bottom-right is omitted it is the same as top-left. If top-right is omitted it is the same as top-left.

Value	Description	Play it
length	Defines the shape of the corners. Default value is 0	Play it »
%	Defines the shape of the corners in %	Play it »
initial	Sets this property to its default value. Read about initial	Play it »
inherit	Inherits this property from its parent element. Read about inherit	



border-spacing Property

■ The border-spacing property sets the distance between the borders of adjacent cells (only for the "separated borders" model). <u>Example</u>

CSS Syntax

border-spacing: length|initial|inherit;

Value	Description
length length	Specifies the distance between the borders of adjacent cells in px, cm, etc. Negative values are not allowed • If one length value is specified, it specifies both the horizontal and vertical spacing • If two length values are specified, the first sets the horizontal spacing and the second sets the vertical spacing
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit



border-style Property

- The border-style property sets the style of an element's four borders. This property can have from one to four values.
- Example

border-style Property

Examples:

- border-style:dotted solid double dashed;
 - o top border is dotted
 - o right border is solid
 - o bottom border is double
 - left border is dashed
- border-style:dotted solid double;
 - top border is dotted
 - right and left borders are solid
 - o 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

Value	Description
none	Default value. Specifies no border
hidden	The same as "none", except in border conflict resolution for table elements
dotted	Specifies a dotted border
dashed	Specifies a dashed border
solid	Specifies a solid border
double	Specifies a double border
groove	Specifies a 3D grooved border. The effect depends on the border-color value
ridge	Specifies a 3D ridged border. The effect depends on the border-color value
inset	Specifies a 3D inset border. The effect depends on the border-color value
outset	Specifies a 3D outset border. The effect depends on the border-color value
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit

border-style values:

none: Defines no border

dotted: Defines a dotted border

dashed: Defines a dashed border

solid: Defines a solid border

double: Defines two borders. The width of the two borders are the same as the border-width value

groove: Defines a 3D grooved border. The effect depends on the border-color value

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

border-width Property

Example

Definition and Usage

The border-width property sets the width of an element's four borders. This property can have from one to four values.

Examples:

- · border-width:thin medium thick 10px;
 - o top border is thin
 - o right border is medium
 - o bottom border is thick
 - o left border is 10px
- · border-width:thin medium thick;
 - o top border is thin
 - o right and left borders are medium
 - o bottom border is thick
- · border-width:thin medium;
 - o top and bottom borders are thin
 - o right and left borders are medium
- border-width:thin;
 - o all four borders are thin

Note: Always declare the border-style property before the border-width property. An element must have border before you can set the width.

border-width Property

Example

Value	Description
medium	Specifies a medium border. This is default
thin	Specifies a thin border
thick	Specifies a thick border
length	Allows you to define the thickness of the border
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit

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border-image-outset Property

■ The border-image-outset property specifies the amount by which the border image area extends beyond the border box. Example

CSS Syntax

border-image-outset: length|number|initial|inherit;

Note: The border-image-outset property can take from one to four values (top, right, bottom, and left sides). If the fourth value is omitted, it is the same as the second. If the third one is also omitted, it is the same as the first. If the second one is also omitted, it is the same as the first.

Value	Description	Play it
length	A length unit specifying how far from the edges the border-image will appear. Default value is 0	Play it »
number	Represent multiples of the corresponding border-width	Play it »
initial	Sets this property to its default value. Read about initial	Play it »
inherit	Inherits this property from its parent element. Read about inherit	



border-image-repeat Property

- The border-image-repeat property specifies whether the border image should be repeated, rounded or stretched.
- Example

border-image-repeat Property

CSS Syntax

```
border-image-repeat: stretch|repeat|round|initial|inherit;
```

Note: This property specifies how the images for the sides and the middle part of the border image are scaled and tiled. So, you can specify two values here. If the second value is omitted, it is assumed to be the same as the first.

Value	Description	Play it
stretch	Default value. The image is stretched to fill the area	Play it ×
repeat	The image is tiled (repeated) to fill the area	Play it ×
round	The image is tiled (repeated) to fill the area. If it does not fill the area with a whole number of tiles, the image is rescaled so it fits	Play it ×
space	The image is tiled (repeated) to fill the area. If it does not fill the area with a whole number of tiles, the extra space is distributed around the tiles	
initial	Sets this property to its default value. Read about initial	Play it ×
inherit	Inherits this property from its parent element. Read about inherit	



border-image-slice Property

- The border-image-slice property specifies how to slice the image specified by border-image-source. The image is always sliced into nine sections: four corners, four edges and the middle.
- The "middle" part is treated as fully transparent, unless the fill keyword is set.
- Example
- Understanding web page

border-image-slice Property

CSS Syntax

```
border-image-slice: number |%|fill|initial|inherit;
```

Note: The border-image-slice property can take from one to four values. If the fourth value is omitted, it is the same as the second. If the third one is also omitted, it is the same as the first. If the second one is also omitted, it is the same as the first.

Value	Description	Play it
number	The number(s) represent pixels for raster images or coordinates for vector images	Play it »
%	Percentages are relative to the height or width of the image	Play it »
fill	Causes the middle part of the image to be displayed	Play it »
initial	Sets this property to its default value. Read about initial	
inherit	Inherits this property from its parent element. Read about inherit	



border-image-source Property

- The border-image-source property specifies the path to the image to be used as a border (instead of the normal border around an element).
- Tip: If the value is "none", or if the image cannot be displayed, the border styles will be used.

CSS Syntax

border-image-source: none|image|initial|inherit;

Value	Description
none	No image will be used
image	The path to the image to be used as a border
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit



border-image-width Property

- The border-image-width property specifies the width of the border image.
- Example

border-image-width Property

CSS Syntax

```
border-image-width: number |% | auto | initial | inherit;
```

Note: The border-image-width property can take from one to four values (top, right, bottom, and left sides). If the fourth value is omitted, it is the same as the second. If the third one is also omitted, it is the same as the first. If the second one is also omitted, it is the same as the first.

Value	Description	Play it
length	A length unit (px) specifying the size of the border-width	Play it »
number	Default value 1. Represents multiples of the corresponding border-width	Play it »
%	Refers to the size of the border image area: the width of the area for horizontal offsets, the height for vertical offsets	Play it »
auto	If specified, the width is the intrinsic width or height of the corresponding image slice	Play it »
initial	Sets this property to its default value. Read about initial	Play it »
inherit	Inherits this property from its parent element. Read about inherit	



border-image Property

- The border-image property is a shorthand property for setting the border-image-source, border-image-slice, border-image-width, border-image-outset and border-image-repeat properties.
- Omitted values are set to their default values.
- Example

border-image Property

CSS Syntax

border-image: source slice width outset repeat|initial|inherit;

Value	Description
border-image-source	The path to the image to be used as a border
border-image-slice	How to slice the border image
border-image-width	The width of the border image
border-image-outset	The amount by which the border image area extends beyond the border box
border-image-repeat	Whether the border image should be repeated, rounded or stretched
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit

CSS: Border Properties(contd...)

- Border Shorthand property
- As you can see from the examples above, there are many properties to consider when dealing with borders.
- To shorten the code, it is also possible to specify all the individual border properties in one property. This is called a shorthand property.
- The border property is a shorthand for the following individual border properties:
 - border-width
 - □ border-style (required)
 - border-color

CSS: Border Properties(contd...)

Property	Description
<u>border</u>	Sets all the border properties in one declaration
border-bottom	Sets all the bottom border properties in one declaration
border-bottom-color	Sets the color of the bottom border
border-bottom-style	Sets the style of the bottom border
border-bottom-width	Sets the width of the bottom border
border-color	Sets the color of the four borders
border-left	Sets all the left border properties in one declaration
border-left-color	Sets the color of the left border
border-left-style	Sets the style of the left border
border-left-width	Sets the width of the left border
border-right	Sets all the right border properties in one declaration
border-right-color	Sets the color of the right border
border-right-style	Sets the style of the right border
border-right-width	Sets the width of the right border
border-style	Sets the style of the four borders
border-top	Sets all the top border properties in one declaration
border-top-color	Sets the color of the top border
border-top-style	Sets the style of the top border
border-top-width	Sets the width of the top border
border-width	Sets the width of the four borders

CSS box-shadow property:

- The box-shadow property attaches one or more shadows to an element.
- Example Multiple Shadow Example

CSS Syntax

box-shadow: none|h-shadow v-shadow blur spread color |inset|initial|inherit;

Note: The box-shadow property attaches one or more shadows to an element. The property is a comma-separated list of shadows, each specified by 2-4 length values, an optional color, and an optional inset keyword. Omitted lengths are 0.

Value	Description	Play it
none	Default value. No shadow is displayed	Play it »
h-shadow	Required. The position of the horizontal shadow. Negative values are allowed	Play it »
v-shadow	Required. The position of the vertical shadow. Negative values are allowed	Play it »
blur	Optional. The blur distance	Play it »
spread	Optional. The size of shadow. Negative values are allowed	Play it »

CSS box-shadow property:

color	Optional. The color of the shadow. The default value is black. Look at <u>CSS</u> <u>Color Values</u> for a complete list of possible color values.
	Note: In Safari (on PC) the color parameter is required. If you do not specify the color, the shadow is not displayed at all.
inset	Optional. Changes the shadow from an outer shadow (outset) to an inner shadow
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit

CSS box-sizing property:

- The box-sizing property is used to tell the browser what the sizing properties (width and height) should include.
- Should they include the border-box? Or just the content-box (which is the default value of the width and height properties)? Example

CSS Syntax

box-sizing: content-box|border-box|initial|inherit;

Value	Description
content-box	Default. The width and height properties (and min/max properties) includes only the content. Border, padding, or margin are not included
border-box	The width and height properties (and min/max properties) includes content, padding and border, but not the margin
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit

CSS bottom property:

- For absolutely positioned elements, the bottom property sets the bottom edge of an element to a unit above/below the bottom edge of its containing element.
- For relatively positioned elements, the bottom property sets the bottom edge of an element to a unit above/below its normal position.
- Note: If "position:static", the bottom property has no effect.
- Example

CSS bottom property:

CSS Syntax

bottom: auto|length|initial|inherit;

Value	Description
auto	Lets the browser calculate the bottom edge position. This is default
length	Sets the bottom edge position in px, cm, etc. Negative values are allowed
%	Sets the bottom edge position in % of containing element. Negative values are allowed
initial	Sets this property to its default value. Read about initial
inherit	Inherits this property from its parent element. Read about inherit