

## CSS Colors

**RGBA** stands for **Red Green Blue Alpha**. It is an extension of CSS2, Alpha specifies the opacity of a color and parameter number is a numerical between 0.0 to 1.0. A Sample syntax of RGBA as shown below –

```
#d1 {background-color: rgba(255, 0, 0, 0.5);}
#d2 {background-color: rgba(0, 255, 0, 0.5);}
#d3 {background-color: rgba(0, 0, 255, 0.5);}
```

**HSL** stands for **hue, saturation, lightness**. Here Hue is a degree on the color wheel, saturation and lightness are percentage values between 0 to 100%. A Sample syntax of HSL as shown below –

```
#g1 {background-color: hsl(120, 100%, 50%);}
#g2 {background-color: hsl(120, 100%, 75%);}
#g3 {background-color: hsl(120, 100%, 25%);}
```

**HSLA** stands for **hue, saturation, lightness and alpha**. Alpha value specifies the opacity as shown RGBA. A Sample syntax of HSLA as shown below –

```
#g1 {background-color: hsla(120, 100%, 50%, 0.3);}
#g2 {background-color: hsla(120, 100%, 75%, 0.3);}
#g3 {background-color: hsla(120, 100%, 25%, 0.3);}
```

**opacity** is a thinner paints need black added to increase opacity. A sample syntax of opacity is as shown below –

```
#g1 {background-color:rgb(255,0,0);opacity:0.6;}
#g2 {background-color:rgb(0,255,0);opacity:0.6;}
#g3 {background-color:rgb(0,0,255);opacity:0.6;}
```

The following example shows rgba color property.

```
<html>
  <head>
    <style>
      #p1 {background-color:rgba(255,0,0,0.3);}
      #p2 {background-color:rgba(0,255,0,0.3);}
      #p3 {background-color:rgba(0,0,255,0.3);}
    </style>
  </head>

  <body>
    <p>RGBA colors:</p>
    <p id = "p1">Red</p>
    <p id = "p2">Green</p>
    <p id = "p3">Blue</p>
  </body>
```

```
</html>
```

The following example shows HSL color property.

```
<html>
  <head>
    <style>
      #g1 {background-color:hsl(120, 100%, 50%);}
      #g2 {background-color:hsl(120,100%,75%);}
      #g3 {background-color:hsl(120,100%,25%);}
    </style>
  </head>

  <body>
    <p>HSL colors:</p>
    <p id = "g1">Green</p>
    <p id = "g2">Normal Green</p>
    <p id = "g3">Dark Green</p>
  </body>
</html>
```

The following example shows HSLA color property.

```
<html>
  <head>
    <style>
      #d1 {background-color:hsla(120,100%,50%,0.3);}
      #d2 {background-color:hsla(120,100%,75%,0.3);}
      #d3 {background-color:hsla(120,100%,25%,0.3);}
    </style>
  </head>

  <body>
    <p>HSLA colors:</p>
    <p id = "d1">Less opacity green</p>
    <p id = "d2">Green</p>
    <p id = "d3">Green</p>
  </body>
</html>
```

The following example shows Opacity property.

```
<html>
  <head>
```

```
<style>
  #m1 {background-color:rgb(255,0,0);opacity:0.6;}
  #m2 {background-color:rgb(0,255,0);opacity:0.6;}
  #m3 {background-color:rgb(0,0,255);opacity:0.6;}
</style>
</head>

<body>
  <p>HSLA colors:</p>
  <p id = "m1">Red</p>
  <p id = "m2">Green</p>
  <p id = "m3">Blue</p>
</body>
</html>
```

## What is Gradients?

Gradients displays the combination of two or more colors as shown below –

## Types of gradients

- Linear Gradients(down/up/left/right/diagonally)
- Radial Gradients

## Linear gradients

Linear gradients are used to arrange two or more colors in linear formats like top to bottom.

## Top to bottom

```
<html>
  <head>
    <style>
      #grad1 {
        height: 100px;
        background: -webkit-linear-gradient(pink, green);
        background: -o-linear-gradient(pink, green);
        background: -moz-linear-gradient(pink, green);
```

```
        background: linear-gradient(pink,green);
    }
</style>
</head>

<body>
    <div id = "grad1"></div>
</body>
</html>
```

## Left to right

```
<html>
  <head>
    <style>
      #grad1 {
        height: 100px;
        background: -webkit-linear-gradient(left, red , blue);
        background: -o-linear-gradient(right, red, blue);
        background: -moz-linear-gradient(right, red, blue);
        background: linear-gradient(to right, red , blue);
      }
    </style>
  </head>

  <body>
    <div id = "grad1"></div>
  </body>
</html>
```

## Diagonal

Diagonal starts at top left and right button.

```
<html>
  <head>
    <style>
      #grad1 {
        height: 100px;
```

```

        background: -webkit-linear-gradient(left top, red ,
blue);
        background: -o-linear-gradient(bottom right, red,
blue);
        background: -moz-linear-gradient(bottom right, red,
blue);
        background: linear-gradient(to bottom right, red ,
blue);
    }
</style>
</head>

<body>
    <div id = "grad1"></div>
</body>
</html>

```

## Multi color

```

<html>
  <head>
    <style>
      #grad2 {
        height: 100px;
        background: -webkit-linear-gradient(red, orange,
yellow, red, blue, green,pink);
        background: -o-linear-gradient(red, orange, yellow,
red, blue, green,pink);
        background: -moz-linear-gradient(red, orange, yellow,
red, blue, green,pink);
        background: linear-gradient(red, orange, yellow, red,
blue, green,pink);
      }
    </style>
  </head>

  <body>
    <div id = "grad2"></div>
  </body>
</html>

```

## CSS3 Radial Gradients

Radial gradients appears at center.

```
<html>
  <head>
    <style>
      #grad1 {
        height: 100px;
        width: 550px;
        background: -webkit-radial-gradient(red 5%, green 15%,
pink 60%);
        background: -o-radial-gradient(red 5%, green 15%, pink
60%);
        background: -moz-radial-gradient(red 5%, green 15%,
pink 60%);
        background: radial-gradient(red 5%, green 15%, pink
60%);
      }
    </style>
  </head>

  <body>
    <div id = "grad1"></div>
  </body>
</html>
```

## CSS3 Repeat Radial Gradients

```
<html>
  <head>
    <style>
      #grad1 {
        height: 100px;
        width: 550px;
        background: -webkit-repeating-radial-gradient(blue,
yellow 10%, green 15%);
        background: -o-repeating-radial-gradient(blue, yellow
10%, green 15%);
        background: -moz-repeating-radial-gradient(blue, yellow
10%, green 15%);
        background: repeating-radial-gradient(blue, yellow 10%,
green 15%);
      }
    </style>
  </head>
```

```
<body>
  <div id = "grad1"></div>
</body>
</html>
```

CSS3 supported to add shadow to text or elements. Shadow property has divided as follows –

- Text shadow
- Box Shadow

## Text shadow

CSS3 supported to add shadow effects to text. Following is the example to add shadow effects to text –

```
<html>
  <head>
    <style>
      h1 {
        text-shadow: 2px 2px;
      }
      h2 {
        text-shadow: 2px 2px red;
      }
      h3 {
        text-shadow: 2px 2px 5px red;
      }
      h4 {
        color: white;
        text-shadow: 2px 2px 4px #000000;
      }
      h5 {
        text-shadow: 0 0 3px #FF0000;
      }
      h6 {
        text-shadow: 0 0 3px #FF0000, 0 0 5px #0000FF;
      }
      p {
        color: white;
        text-shadow: 1px 1px 2px black, 0 0 25px blue, 0 0 5px
darkblue;
      }
    </style>
```

```
</head>

<body>
  <h1>Tutorialspoint.com</h1>
  <h2>Tutorialspoint.com</h2>
  <h3>Tutorialspoint.com</h3>
  <h4>Tutorialspoint.com</h4>
  <h5>Tutorialspoint.com</h5>
  <h6>Tutorialspoint.com</h6>
  <p>Tutorialspoint.com</p>
</body>
</html>
```

It will produce the following result –

## box shadow

Used to add shadow effects to elements, Following is the example to add shadow effects to element.

```
<html>
  <head>
    <style>
      div {
        width: 300px;
        height: 100px;
        padding: 15px;
        background-color: red;
        box-shadow: 10px 10px;
      }
    </style>
  </head>

  <body>
    <div>This is a div element with a box-shadow</div>
  </body>
</html>
```

## Border Image

CSS Border image property is used to add image boarder to some elements.you don't need to use any HTML code to call boarder image.A sample syntax of boarder image is as follows –

```
#borderimg {  
  border: 10px solid transparent;  
  padding: 15px;  
}
```

The most commonly used values are shown below –

Sr.No.	Value & Description
1	<b>border-image-source</b> Used to set the image path
2	<b>border-image-slice</b> Used to slice the boarder image
3	<b>border-image-width</b> Used to set the boarder image width
4	<b>border-image-repeat</b> Used to set the boarder image as rounded, repeated and stretched

## Example

Following is the example which demonstrates to set image as a border for elements.

```
<html>  
  <head>  
    <style>  
      #borderimg1 {  
        border: 10px solid transparent;  
        padding: 15px;  
        border-image-source: url(/css/images/border.png);
```

```

        border-image-repeat: round;
        border-image-slice: 30;
        border-image-width: 10px;
    }
    #borderimg2 {
        border: 10px solid transparent;
        padding: 15px;
        border-image-source: url(/css/images/border.png);
        border-image-repeat: round;
        border-image-slice: 30;
        border-image-width: 20px;
    }
    #borderimg3 {
        border: 10px solid transparent;
        padding: 15px;
        border-image-source: url(/css/images/border.png);
        border-image-repeat: round;
        border-image-slice: 30;
        border-image-width: 30px;
    }
</style>
</head>

<body>
    <p id = "borderimg1">This is image boarder example.</p>
    <p id = "borderimg2">This is image boarder example.</p>
    <p id = "borderimg3">This is image boarder example.</p>
</body>
</html>

```

## Description

The `border-image` CSS property specifies how an image is to be used in place of the border styles. This is a shorthand property for setting `border-image-source`, `border-image-slice`, `border-image-width`, `border-image-outset` and `border-image-repeat` properties at once.

The following table summarizes the usages context and the version history of this property.

<b>Default value:</b>	none 100% 1 0 stretch; <i>See individual properties</i>
<b>Applies to:</b>	All elements, except internal table elements when <code>border-collapse</code> is <code>collapse</code> . It also applies to <code>::first-letter</code> .
<b>Inherited:</b>	No
<b>Animatable:</b>	No. <i>See animatable properties.</i>
<b>Version:</b>	New in CSS3

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## Syntax

The syntax of the property is given with:

```
border-image: [ source slice width outset repeat ] | initial | inherit
```

The example below shows the `border-image` property in action.

*Example*

**Try this code »**

- `.box {`
- `width: 300px;`
- `height: 150px;`
- `border: 15px solid transparent;`
- `-webkit-border-image: url("border.png") 30 30 round; /* Safari 3.1-5 */`

- `-o-border-image: url("border.png") 30 30 round; /* Opera 11-12.1 */`
- `border-image: url("border.png") 30 30 round;`
- `}`

---

## Property Values

The following table describes the values of this property.

Value	Description
<i>border-image-source</i>	Specifies the location of the image to be used for the border.
<i>border-image-slice</i>	Specifies the inward offsets from the top, right, bottom, and left edges of the border image.
<i>border-image-width</i>	Specifies the width of the border.
<i>border-image-outset</i>	Specifies the amount by which the border image area extends beyond the border box.
<i>border-image-repeat</i>	Specifies how the middle part of the border image are scaled or tiled so that it can match the size of the border.

<b>initial</b>	Sets this property to its default value.
<b>inherit</b>	If specified, the associated element takes the <b>computed value</b> of its parent element <b>border-image</b> property.