

# CSS Gradients

CSS gradients display progressive transitions between two or more specified colors. Gradients can be used in backgrounds.

In this file I will share the different codes with you for the formation of gradients if anyone having any doubt you can ask in lectures

There are three types of gradients:

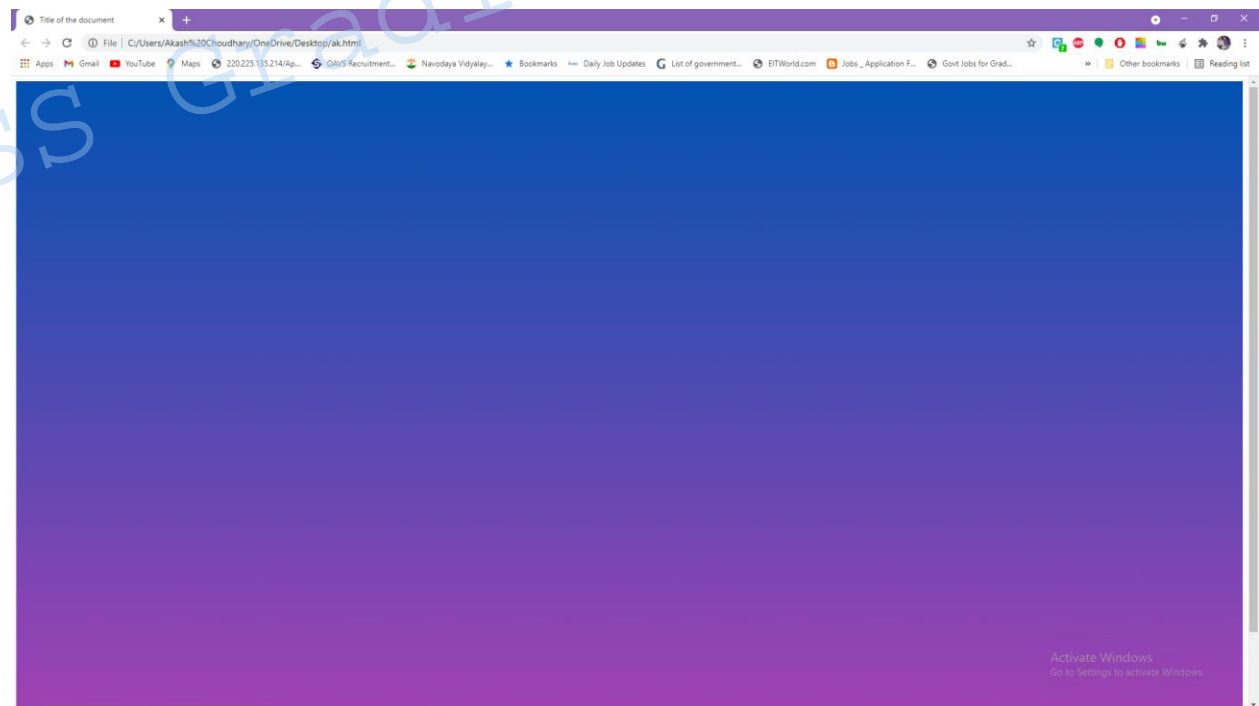
LINEAR GRADIENT

RADIAL GRADIENT

CONIC GRADIENT

## Linear Gradients

The linear-gradient creates an image that consists of a smooth transition between two or more colors along a straight line. It can have a starting point and a direction along with the gradient effect.



## Syntax

```
background-image: linear-gradient(direction, color1, color2, ...);
```

## Top to Bottom

Linear gradients transition from top to bottom, by default.

### Example of a linear gradient from top to bottom:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the document</title>
    <style>
      .gradient {
        height: 300px;
        background-color: blue;
        background-image: linear-gradient(#0052b0, #b340b3);
      }
    </style>
  </head>
  <body>
    <div class="gradient"></div>
  </body>
</html>
```

We add [background-color](#) for browsers that do not support gradients.

## Left to Right

Changing a linear-gradient rotation specifying the direction starting from left transitioning to right.

### Example of a linear gradient from left to right:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the document</title>
    <style>
      .gradient {
        height: 300px;
        background-color: blue;
        background-image: linear-gradient(to right, #0052b0 ,#b340b3);
      }
    </style>
  </head>
  <body>
    <div class="gradient"></div>
  </body>
</html>
```

```
</style>
</head>
<body>
  <div class="gradient"></div>
</body>
</html>
```

## Diagonal gradients

Gradients can be run diagonally specifying both the horizontal and vertical starting positions. It starts at the top left and goes to the bottom right.

### Example of the diagonal gradient

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the document</title>
    <style>
      .gradient {
        height: 300px;
        background-color: blue;
        background-image: linear-gradient(to bottom right, #0052b0, #b340b3);
      }
    </style>
  </head>
  <body>
    <div class="gradient"></div>
  </body>
</html>
```

## Using Angles

Define an angle instead of directions to take more control over the gradient direction. 0deg creates a vertical gradient transitioning from bottom to top, 90deg creates a horizontal gradient transitioning from left to right. Specifying negative angles will run in a counterclockwise direction.

### Example of a linear gradient with a specified angle:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the document</title>
    <style>
      .gradient {
        height: 300px;
        background-color: blue;
        background-image: linear-gradient(70deg, #0052b0, #b340b3);
      }
    </style>
  </head>
  <body>
    <div class="gradient"></div>
  </body>
</html>
```

## Multiple Colors Effect

CSS gradient colors vary with position producing smooth color transitions. There is no limit in using colors.

### Example of a linear gradient with multiple colors effect:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the document</title>
    <style>
      .gradient {
        height: 300px;
        background-color: blue;
        background-image: linear-gradient(#f50707, #f56e00, #f7df00, #66f507,
        #0052b0, #520f41, #ff0856);
      }
    </style>
  </head>
  <body>
    <div class="gradient"></div>
  </body>
</html>
```

We can also create a linear gradient with multiple colors effect specifying a direction. You can give each color zero, one, or two percentage or absolute length values. 0% indicates the starting point, while 100% indicates the ending point.

### Example of a linear gradient with multiple colors from left to right:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the document</title>
    <style>
      .gradient {
        height: 300px;
        background-color: blue;
        background-image: linear-gradient(to right, #f50707, #f56e00, #f7df00,
        #66f507, #0052b0, #520f41, #ff0856);
      }
    </style>
  </head>
  <body>
    <div class="gradient"></div>
  </body>
</html>
```

### Example of a linear gradient with multiple colors from right to left:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the document</title>
    <style>
      .gradient {
        height: 300px;
        background-color: blue;
        background-image: linear-gradient(to left, #f50707, #f56e00, #f7df00,
        #66f507, #0052b0, #520f41, #ff0856);
      }
    </style>
  </head>
```

```
<body>
  <div class="gradient"></div>
</body>
</html>
```

## Transparency

Gradients support transparency, so you can use multiple backgrounds to achieve a transparent effect. To achieve it, you can use the `rgba()` function for defining the color stops. The last parameter in the `rgba()` function can be a value from 0 to 1 which will define the transparency of the color. 0 indicates full transparency, 1 indicates full color.

### Example of a linear gradient from full color to transparent:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the document</title>
    <style>
      .gradient {
        height: 200px;
        background-image: linear-gradient(to left, rgba(235, 117, 253, 0),
        rgba(235, 117, 253, 1));
      }
    </style>
  </head>
  <body>
    <div class="gradient"></div>
  </body>
</html>
```

## Repeating Linear Gradient

Use `repeating-linear-gradient()` function to repeat a linear gradient. The colors get cycled over and over again as the gradient repeats.

### Example of a repeated linear gradient:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the document</title>
    <style>
      .gradient {
```

```
        height: 200px;
        background-color: blue;
        background-image: repeating-linear-gradient(55deg, #d5b6de, #6c008a
7%, #036ffc 10%);
    }
</style>
</head>
<body>
    <div class="gradient"></div>
</body>
</html>
```

## Radial Gradients

Radial gradients radiate out from a central point. For creating a radial gradient at least two color stops must be specified. Radial gradients can be circular or elliptical.

## Syntax

```
background-image: radial-gradient(shape size at position, start-color, ...,
last-color);
```

### Example of a radial gradient with three colors:

```
<!DOCTYPE html>
<html>
    <head>
        <title>Title of the document</title>
        <style>
            .gradient {
                height: 250px;
                width: 250px;
                background-color: blue;
                background-image: radial-gradient( #ff0509, #fff700, #05ff33);
            }
        </style>
    </head>
    <body>
        <div class="gradient"></div>
    </body>
</html>
```

## Positioning Radial Color Stops

Like linear gradients, radial gradients also take a specified position and absolute length.

### Example of differently spaced color stops:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the document</title>
    <style>
      .gradient {
        height: 250px;
        width: 250px;
        background-color: blue;
        background-image: radial-gradient( #ff0509 10%, #fff700 20%, #05ff33
80%);
      }
    </style>
  </head>
  <body>
    <div class="gradient"></div>
  </body>
</html>
```

## Positioning Center of Radial Gradient

You can also specify the center position of the gradient with percentage, or absolute lengths.

### Example of a radial gradient with positioned center:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the document</title>
    <style>
      .gradient {
        height: 250px;
        width: 250px;
        background-color: blue;
        background-image: radial-gradient(at 0% 30%, #ff0509 10px, #fff700
30%, #05ff33 50%);
      }
    </style>
  </head>
  <body>
    <div class="gradient"></div>
  </body>
</html>
```



```
}  
</style>  
</head>  
<body>  
  <div class="gradient"></div>  
</body>  
</html>
```

## Radial Gradient Shape

The shape parameter defines the shape of the radial gradient. It can take two values: circle or ellipse. The default value is an ellipse.

### Example of radial gradient shape:

```
<!DOCTYPE html>  
<html>  
  <head>  
    <title> Title of the document</title>  
    <style>  
      .gradient1 {  
        height: 150px;  
        width: 200px;  
        background-color: blue;  
        background-image: radial-gradient(red, yellow, green);  
      }  
      .gradient2 {  
        height: 150px;  
        width: 200px;  
        background-color: blue;  
        background-image: radial-gradient(circle, red, yellow, green);  
      }  
    </style>  
  </head>  
  <body>  
    <h2>Ellipse:</h2>  
    <div class="gradient1"></div>  
    <h2>Circle:</h2>  
    <div class="gradient2"></div>  
  </body>  
</html>
```

## Sizing Radial Gradient

Unlike linear gradients, the size of the radial gradients can be specified. The values are:

- closest-corner
- closest-side
- farthest-corner(default)
- farthest-side.

### Example of radial gradients with specified size:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the document</title>
    <style>
      .gradient1 {
        height: 150px;
        width: 150px;
        background-color: blue;
        background-image: radial-gradient(closest-side at 60% 55%, #ff0509,
#fff700, #103601);
      }
      .gradient2 {
        height: 150px;
        width: 150px;
        background-color: blue;
        background-image: radial-gradient(farthest-side at 60% 55%, #ff0509,
#fff700, #103601);
      }
      .gradient3 {
        height: 150px;
        width: 150px;
        background-color: blue;
        background-image: radial-gradient(closest-corner at 60% 55%, #ff0509,
#fff700, #103601);
      }
      .gradient4 {
        height: 150px;
        width: 150px;
```

```
background-color: blue;
background-image: radial-gradient(farthest-corner at 60% 55%,
#ff0509, #fff700, #103601);
}
</style>
</head>
<body>
<h2>closest-side:</h2>
<div class="gradient1"></div>
<h2>farthest-side:</h2>
<div class="gradient2"></div>
<h2>closest-corner:</h2>
<div class="gradient3"></div>
<h2>farthest-corner:</h2>
<div class="gradient4"></div>
</body>
</html>
```

## Repeating Radial Gradient

The repeating-radial-gradient() CSS function creates an image that consists of repeating gradients radiating from an origin.

### Example of the repeated radial gradient:

```
<!DOCTYPE html>
<html>
<head>
<style>
.gradient {
height: 200px;
width: 200px;
background-color: blue;
background-image: repeating-radial-gradient(#f70000, #f7da00 10%,
#005cfa 15%);
}
</style>
</head>
<body>
<div class="gradient"></div>
</body>
```

```
</html>
```

## Conic Gradients

The conic-gradient creates an image that consists of a gradient with color transitions rotating around a center point.

## Syntax

```
background-image: conic-gradient(color1, color2);
```

### Example of a basic conic gradient:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the document</title>
    <style>
      .gradient {
        height: 250px;
        width: 250px;
        background-color: blue;
        background: conic-gradient(#ff0000, #fff200);
      }
    </style>
  </head>
  <body>
    <div class="gradient"></div>
  </body>
</html>
```

### Positioning Conic Center

Like radial gradients, the center of the conic gradient can be positioned with percentage, or absolute lengths, with the "at" keyword.

### Example of a conic gradient with positioned center:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the document</title>
    <style>
      .gradient {
```

```
        height: 250px;
        width: 250px;
        background-color: blue;
        background: conic-gradient(at 0% 50%, red 10%, yellow 30%, #1eff00
60%);
    }
</style>
</head>
<body>
    <div class="gradient"></div>
</body>
</html>
```

## Changing the Angle

The angle of the conic gradient can be rotated with the "from" keyword.

### Example of conic gradient with rotated angle:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the document</title>
    <style>
      .gradient {
        height: 250px;
        width: 250px;
        background-color: blue;
        background: conic-gradient(from 35deg, #ff0000, #ffa600, #fcf000,
#03ff0f, #be05fc, #ff0095);
      }
    </style>
  </head>
  <body>
    <div class="gradient"></div>
  </body>
</html>
```

## Repeating Conic Gradient

The repeating-conic-gradient() CSS function creates an image that consists of a repeating gradient with color transitions rotating around a center point.

### Example of the repeated conic gradient:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Title of the document</title>
    <style>
      .gradient {
        height: 250px;
        width: 250px;
        background-color: blue;
        background: repeating-conic-gradient(from -45deg, red 45deg, orange,
yellow, green, blue 225deg);
      }
    </style>
  </head>
  <body>
    <div class="gradient"></div>
  </body>
</html>
```

### Example for the implementation of different web-kits of CSS for the gradient color formations:

In the given example you have to use one by one background property as there are different -different gradient formations are available so use them one by one which will help you out to know more about the gradient.

In the below code every new gradient formation is begin either with background: image or background and terminates on ;

```
<!DOCTYPE html>
<html>
```

```
<head>

  <title>Gradient formation By Akash </title>>

  <style >

    body {

      /*background: -webkit-
gradient(linear, left top, left bottom, from(#000), to(#cbccc8)) fixed;*/

      /*background-image: -webkit-linear-gradient(red, green, blue);

      /*background-image: -webkit-radial-gradient(circle, white, black);

      linear-gradient()
radial-gradient()
repeating-linear-gradient()
repeating-radial-gradient()
background:-webkit-linear-gradient(left, white, black);
background:-webkit-linear-gradient(top right, white, black);
background:-webkit-linear-gradient(135deg, white, black);
background:-webkit-radial-gradient(center, ellipse cover, white, black);
background:-webkit-radial-gradient(white, black);
background:-webkit-radial-gradient(10% 30%, white, black);
background:-webkit-radial-gradient(30% 30%, closest-corner, white, black);
background:-webkit-radial-gradient(30% 30%, circle closest-corner, white, black);
background:-webkit-radial-gradient(center, 5em 40px, white, black);
background:-webkit-linear-gradient(left, red, green, blue);
background:-webkit-linear-gradient(bottom left, red 20px, yellow, green, blue 90%);
background:-webkit-linear-
gradient(top left, red, yellow, green 60%, purple 60%, blue);
background:-webkit-repeating-linear-gradient(left, red 10%, blue 30%);
```

```
background:-webkit-repeating-radial-
gradient(top left, circle, red, blue 10%, red 20%);*/
}

</style>
</head>

<!-- this is my web page -->
<body    >
<!--Body goes here-->
</body>
</html>
```

CSS Gradient by Akash