

CSS Gradients

CSS Gradient let you display smooth transitions b/w two or more specified colors

Green → Yellow

Three types of gradients :-

- Linear Gradient (goes down/up/left/right/diagonally)
- Radial Gradient (defined by its center)
- Conic Gradient (rotated around a center point)

Linear Gradient

- To create a linear gradient you must define at least two color stops.
- Color stops are the colors you want to render smooth transitions among. You can also set a starting point and a direction (or an angle) along with the gradient effect.

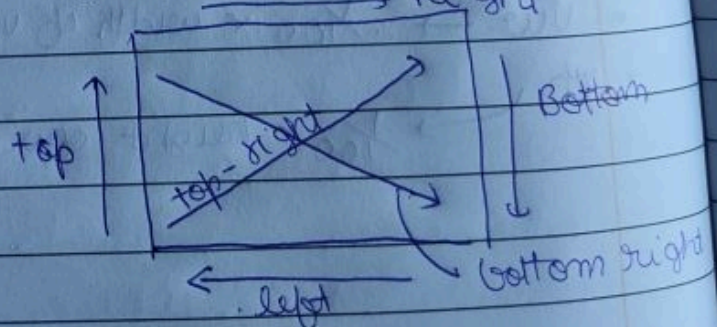
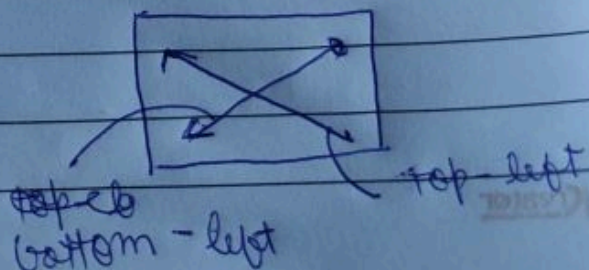
Syntax

background-image: linear-gradient(direction, color-stop 1, color-stop 2... 1);

Directions

- Default
- Specific
- Using angles
- Using transparency

By default → top to bottom

Radial Gradients



## Syntax

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

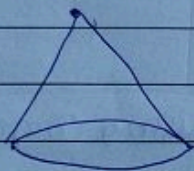
- You can change spacing of colours / set more elegant shapes / repeating gradient.

## Conic Gradient

- Color transitions rotated around a center point

## Syntax

background-image: conic-gradient ([from angle] [at position], color [degree], color [degree]...)



## CSS Shadow effects

With CSS you can add shadows to text and to elements

- Text-shadow
- Box-shadow

## Text-shadow

- The CSS text-shadow property applies shadows to text
- You can add horizontal / vertical shadows
- Color can be added
- Blur can be added
- Multiple shadows on 1 text can be added
- How can we add borders using shadows?



## Syntax

text-shadow: horizontal vertical ~~color~~ <sup>blur</sup> color;

## Box-Shadow

text color → shadow color  
 Negative value → change direction

## Syntax

box-shadow: horizontal vertical blur color;

- Default color of shadow is text color
- Color of shadow can be changed
- Blur can be added
- spread-radius can be changed
- Multiple shadows can be added using comma.

Box-shadow: 0px 0px 2px 1px black;

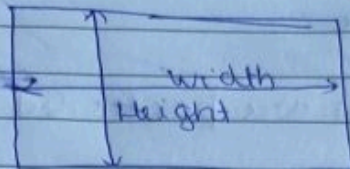
↑  
 4th value is spread radius

The spread radius (optional) - positive value increases the size of the shadow; negative value decreases the size. default is 0 (the shadow is same size as box)

## CSS - Dimensional properties

- (i) Width
- (ii) Height
- (iii) Min-height
- (iv) Min-width
- (v) Max-height
- (vi) Max-width





## Overflow Property

→ The overflow CSS shorthand property the default behavior for an element's overflow - i.e. when an element's content is too big to fit in block formatting context - in both directions.

values:

- visible
- Hidden
- scroll
- Auto

## CSS Position Property

The position property specifies the type of positioning method used for an element (static, relative, fixed, absolute or sticky).

default  
position: static

- Static
- Relative
- Fixed
- Absolute
- Sticky



### Position: static

- HTML elements are positioned static by default
- HTML elements are positioned static by default. An element with `position: static` is not positioned in any special way.
- It is always positioned according to the normal flow of the page.

p
h1
div

### Position: relative

An element with `position: relative` is positioned relative to its normal position

- Setting the top, right, bottom and left properties of a relatively-positioned element will cause it to be adjusted away from its normal position. Other content will not be adjusted to fit into any gap left by the element.

### Position: fixed

- An element with `position: fixed` is positioned relative to the viewport, which means it always stays in the same place even if the page is scrolled.



The top, right, bottom, and left properties are used to position the element.

### Position: absolute

- An element with position: absolute; is positioned relative to the nearest positioned ancestor (instead of positioned relative to the viewport, like fixed).
- However; if an absolute positioned element has no positioned ancestors, it uses the document body, and moves along with page scrolling.
- Note:- Absolute positioned elements are removed from the normal flow, and can overlap elements.

### Position: sticky

An element with position: sticky; is positioned based on the user's scroll position.

- An sticky element toggles between relative and fixed depending on the scroll position.
- It is positioned relative until a given offset position is met the viewport - then it "sticks" in place (like position: fixed).



## CSS-2D Transforms

→ CSS transforms allow you to move, rotate, scale, and skew elements

With transform property you can use following methods

- translate() → Movement → skew() → Tilt
- rotate() → skew X()
- scaleX() → skew Y()
- scaleY() → Matrix()
- scale() → Zooming

## CSS-3D Transforms

Same operation with respect to 3D

(3 axis)

perspective add