

Chapter 8 - Transforms, Transitions & Animations

Transforms are used to rotate, move, skew or scale elements. They are used to create a 3-D effect

The transform property
Used to apply a 2D or 3D transformation to an element

The transform-origin property
Allows to change the position of transformed elements
2D transforms → can change x & y axis
3D transforms → can change z axis as well

CSS 2D transform methods

You can use the following 2-D transforms in CSS:

- 1> translate()
- 2> rotate()
- 3> scaleX()
- 4> scaleY()
- 5> skew()
- 6> matrix()
- 7> scale()

CSS 3D transform methods

- 1> rotateX()
- 2> rotateY()
- 3> rotateZ()

CSS Transitions

Used to change property values smoothly, over a given duration.

The transition property

The transition property is used to add transition in CSS.

Following are the properties used for CSS transition.

- 1> transition-property → The property you want to transition
- 2> transition-duration → Time for which you want transition to apply
- 3> transition-timing-function → How you want the property to transition
- 4> transition-delay → Specifies the delay for the transition

All these properties can be set using a single shorthand property

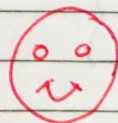
transition : width 35 ease-in 25 ;

(1) property (2) duration (3) timing-function (4) delay

Transitioning multiple properties

We can transition multiple properties as follows:

transition : opacity 1s ease-out 1s, transform 2s ease-in;



Yes you can skip transition delay here!

CSS Animations

Used to animate CSS properties with more control.
We can use @keyframes rule to change the animation from a given style to a new style.

@keyframes happy {
 from { width: 20px; } → can change multiple properties
 to { width: 31px; }
}

Properties to add Animations

Following are the properties used to set animation in CSS:

- 1> animation-name → name of the animation
- 2> animation-duration → How long does the animation run?
- 3> animation-timing-function → Determines speed curve of the animation
- 4> animation-delay → Delay for the start of an animation
- 5> animation-iteration-count → Number of times an animation should run
- 6> animation-direction → Specifies the direction of the animation

The Animation shorthand

All the animation properties from 1-6 can be applied like this:

animation: happy 6s linear 1s infinite reverse;

①
②
③
④
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⑥

Using percentage value states with animation

We can use % values to indicate what should happen when a certain percent of animation is completed

@ Keyframes Harry {

0% {

width: 20px;

}

50% {

width: 80px;

}

100% {

width: 200px;

}

}

⇒ Can add as many intermediate properties as possible