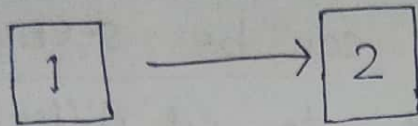


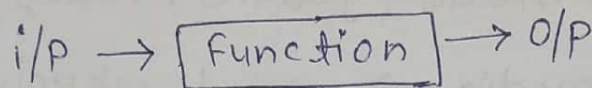
# Animation And Responsiveness

19/01/23



CSS style1 to CSS style2 gradual change between them is called Animation.

## \* Function in CSS



Piece of code where we get output when we give Input to it.

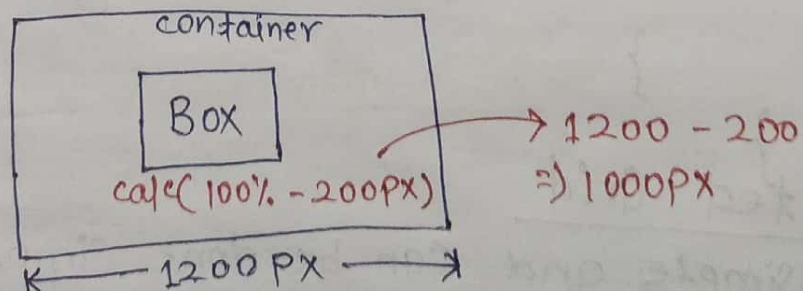
Eg - `rgb ( )`   
 `repeat ( )`   
  $\swarrow$  i/p parameter.   
  $\nwarrow$  name

`scale ( )` , `translate ( )` , `gradient ( )`   
 `rgba ( )` , `url ( )` , `minmax ( )` etc.

## \* Math Function in CSS

① `calc ( )` (For width)

To Solve expression (+, -, \*, / etc)   
 & use the value



`calc (Parentvalue expression value)`   
 `calc (100% - 200px)`

- ② min (-, -) (For width)
- ③ max (-, -) (For width)
- ④ minmax (-, -) provides range b/w min & maximum.  
                   ↑          ↑  
                 min      max

## \* Variable in CSS

When you have a long block of code (layout) & you want to add style, but when you want to change style then from variable you can change all value from single place.

- Variable works only inside the blocks when declared locally.
- When variable is declared in the **:root**

```
:root {
```

```
--dark-red: #981a2c;
```

```
}
```

↳ globally defined variable can be used anywhere

But

```
.container {
```

```
--dark-red: #981a2c;
```

```
}
```

↳ local variable only be used within blocks.

Scope

Global variable

Local variable

↳ in root element

↳ in specific element

Q: Find

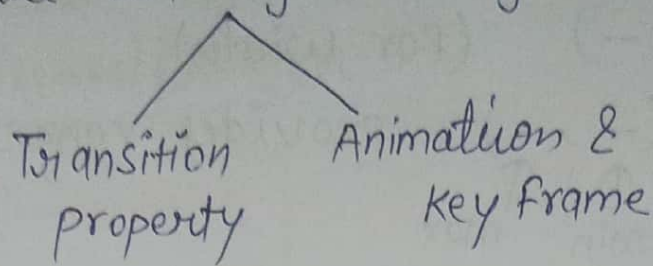
```
:root {  
  
}
```

Vs

```
* {  
  
}
```



We can animate our object using two property



## ① CSS Transition

CSS Transition allows you to change property values smoothly, over a given duration.

### properties

transition

transition-delay

transition-duration

transition-property

transition-timing-function

How to use CSS transition

To create a transition effect, you must specify two things:

- \* the CSS property you want to add an effect to.

- \* the duration of the effect.

**NOTE** ⇒ If the duration part is not specified, the transition will have **no effect**, because the default value is '0'.

## ② transition-timing-function

This property specifies the speed curve of the transition effect.

There are following value.

- \* ease :- slow start, then fast, then end slowly (default)
- \* linear :- same speed from start to end.
- \* ease-in :- slow start.
- \* ease-out :- slow end.
- \* ease-in-out :- slow start and end
- \* cubic-bezier (n,n,n,n) :- define your own values  
Eg:- transition-timing-function: cubic-bezier (0, 1.47, 0, 1.68);

### ⑥ transition-delay

This property specifies a delay (in Sec) for the transition-effect.

Eg:-

```
div {
    transition-delay: 2s;
}
```

### ⑦ transition-duration

It specifies how many seconds or millisecond a transition takes to complete.

Eg:-

```
P {
    transition-duration: 3s;
}
```

### ⑧ transition-property

It specifies the name of the CSS property the transition effect is for.

Eg:- Hover a <div> element, and change the width with a smooth transition effect.

```
div {
    transition-property: width;
}
div: hover {
    width: 300px;
}
```









## ⑧ animation-timing-function

It specifies the speed curve of the animation

- \* ease
- \* ease-in
- \* ease-in-out
- \* linear
- \* ease-out
- \* cubic-bezier(n,n1,n2,n)

## ⑨ animation-fill-mode

CSS animation do not affect an element before the first keyframe is played or after the last keyframe is played. The animation-fill-mode property can override this behaviour.

- \* none
- \* backward
- \* forwards
- \* both

Eg=) `div {  
 animation-fill-mode : forwards / backward /  
 both ;  
}`

## ⑩ animation

It is shorthand property

animation : example 5s linear 2s infinite alternate  
                  ↓                  ↓                  ↓                  ↓                  ↓  
                  name          duration          timing-function          delay          iteration-count          direction