Alpha Channel

Sets the **opacity** for a color

Ranges from 0 to 1

hidden

color : rgb

Red   Green   Blue

rgb a
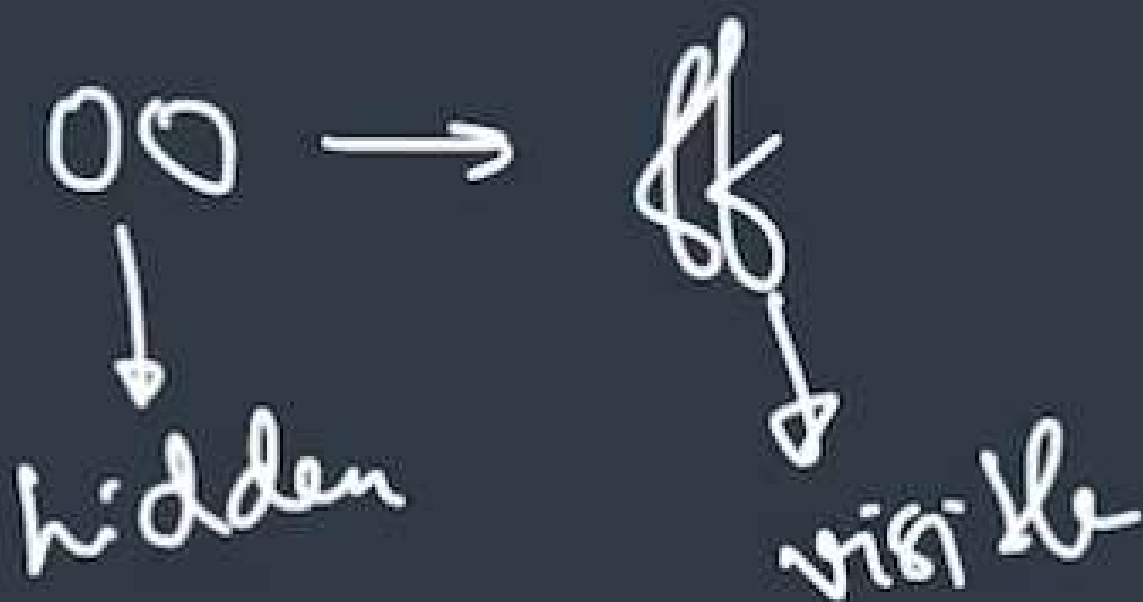
alpha → opacity

rgb**a**(255, 255, 255, **0.3**)

Red   0-255

Blue   0-255

Green   0-255

Alpha   0-1

hidden → visible

Opacity

Sets the **opacity** for the element

Ranges from 0 to 1

hidden ↗

opacity : 0.5

α — color

opacity — element

CSS Transitions

Transitions enable you to define the transition between two states of an element.

Transition Shorthand

property name | duration | timing-function | delay

transition: margin-top 2s ease-in-out 0.2s;

CSS Transform

This property lets you rotate, scale, skew, or translate an element.

(i) Rotate

    transform : rotate (45deg);

CSS Transform

(ii) Scale
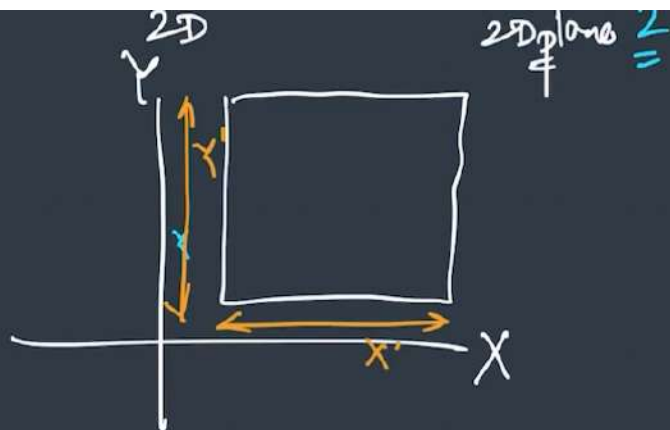
transform : scale (0.5); ½

transform : scale (1.5);

CSS Transform

(ii) Scale

transform : scale (0.5);

transform : scale (1.5);

CSS Transform

(iii) Translate

transform : translate (50px, 50px);

transform : translateX (10px);

transform : translateY (10px);

CSS Transform

(iii) Translate

transform : translate (50px, 50px);

transform : translateX (10px);

transform : translateY (10px);

Box Shadow

It adds shadow effects around an element's frame.

box-shadow : 2px 2px 10px green;

Box Shadow

It adds shadow effects around an element's frame.

box-shadow : 2px 2px 10px green;

blur radius

x offset

y offset

color

Background Image

Lets you set an image as a background.

background-image : url("../somepath/..img.jpg");

background-size : contain / cover / auto;
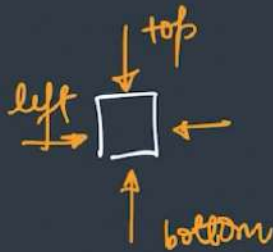
crop x
scale x
repeat

crop v
scale x

stretch

Position

The position CSS property sets how an element is positioned in a document.

The **top**, **right**, **bottom**, and **left** properties determine the final location of positioned elements.

- static

- relative

- absolute

- fixed

Position - Static

The top, right, bottom, left, and z-index properties have no effect. This is the **default** value.

Position - Relative

the offset is relative to itself based on the values of top, right, bottom, and left.

Position - Absolute

The element is removed from the normal document flow, and no space is created for the element in the page layout.

It is positioned relative to its closest positioned ancestor, if any; otherwise, it is placed relative to the initial containing block.

Position - Fixed

The element is removed from the normal document flow, and no space is created for the element in the page layout.
It is positioned relative to the initial containing block established by the viewport.

Creating a **Simple Smiley Face**

CSS (Part 4)
Practice Questions

We are given 2 files - HTML & CSS.
Complete the assignment according to the instructions in the CSS file.

You can also download these from Github :
https://github.com/apna-college/Delta/tree/main/CSS/Chapter4/Assignment

HTML Code

```html
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8" />
<meta http-equiv="X-UA-Compatible" content="IE=edge" />
<meta name="viewport" content="width=device-width,
initial-scale=1.0" />
<title>CSS Assignment</title>
<link rel="stylesheet" href="style.css" />
</head>
<body>
  <div id="box1">This is box1</div>
  <div id="box2">This is box2</div>
  <div id="box3">This is box3</div>
  <div id="box4">This is box4</div>
  <div id="myPic">This is my Pic</div>
```

```html
</body>
</html>
```

CSS Code

```css
/* Qs1. Add a 2s transition on box1 for width changes.
It should have 'ease-in' speed curve & 0.5s delay */


#box1 {
  width: 100px;
  height: 100px;
  background: green;
}


#box1:hover {
  width: 600px;
}


/* Qs2. Using transform, move box2 200px to the right &
200px down. Also rotate it 90deg.*/


#box2 {
  width: 100px;
  height: 100px;
  background: red;
}


/* Qs3. Using transform, skew box3 20deg along the x axis.*/
```

```css
#box3 {
    width: 100px;
    height: 100px;
    background: lightblue;
}


/* Qs4. Set a 2px horizontal & 2px vertical, green shadow
for box4, with a 5px blur radius.*/

#box4 {
    width: 100px;
    height: 100px;
    background: lightgreen;
}


/* Qs5. Set Your picture or any picture as the background of
the div
"myPic". Also, set transparency of this div to 50%. */

#myPic {
    width: 200px;
    height: 200px;
    background: pink;
}
```

CSS (Part 4)
Practice Solutions

Answers

```css
/* Qs1. Add a 2s transition on box1 for width changes.
It should have 'ease-in' speed curve & 0.5s delay */


#box1 {
  width: 100px;
  height: 100px;
  background: green;
  transition: width 2s ease-in 0.5s;
}


#box1:hover {
  width: 600px;
}


/* Qs2. Using transform, move box2 200px to the right &
200px down. Also rotate it 90deg.*/


#box2 {
  width: 100px;
  height: 100px;
  background: red;
```

```css
  transform: translate(200px, 200px) rotate(90deg);
}


/* Qs3. Using transform, skew box3 20deg along the x axis.*/

#box3 {
  width: 100px;
  height: 100px;
  background: lightblue;
  transform: skewX(20deg);
}


/* Qs4. Set a 2px horizontal & 2px vertical, green shadow
for box4, with a 5px blur radius.*/

#box4 {
  width: 100px;
  height: 100px;
  background: lightgreen;
  box-shadow: 2px 2px 5px green;
}


/* Qs5. Set Your picture or any picture as the background of
the div
"myPic". Also, set transparency of this div to 50%. */

#myPic {
```

```css
  width: 200px;
  height: 200px;
  background: pink;
  background-image: url("picture.jpg");
  background-size: cover;
  opacity: 50%;
}
```