CSS Transformation

1. **CSS Transformation:**
    a. An Object can change the original form to desired form this is called as transformation.
    b. The *transform* property applies a transformation to an element.
    c. This property allows you to rotate, scale, skew, etc., elements.

2. **CSS 2D Transform Methods:**
    a. With the CSS transform property we can use ⇒
        i. translate(), translateX(), translateY()
        ii. rotate(), rotateX(), rotateY()
        iii. scale(), scaleX(), scaleY()
        iv. skew(), skewX(), skewY()
    b. The *transform* property in CSS is used to add effects like skew, rotate, translate, etc on elements.

3. **translate() property:**
    a. The *translate()* method moves an element from its current position.
    b. **Syntax**:

```
transform: translate(x,y);
```

    c. *translateX(x)*: It specifies the translation across the X-axis only.

d. *translateY(y)*: It specifies the translation across the Y-axis only.

4. rotate() property:

a. The *rotate()* method rotates an element clockwise or counter-clockwise according to a given degree.
b. Using *negative* values will rotate the element in *anti-clockwise* direction.
c. It accepts only deg. (*0deg to 360deg*).
d. **Syntax**:

```
transform: rotate(angle);
```

e. *rotate(angle)*: It specifies the angle of rotation.
f. *rotateX(angle)*: It specifies the rotation along with the X-axis corresponding to the angle of rotation.
g. *rotateY(angle)*: It specifies the rotation along with the Y-axis corresponding to the angle of rotation.
h. *rotateZ(angle)*: It specifies the rotation along with the Z-axis corresponding to the angle of rotation.

5. scale() property:

a. The *scale()* method increases or decreases the width and height of an element.
b. It accepts only ***number***.
c. If you provide the number (**>1** It will increases the size of the element)
d. If you provide the number (**<1** and **>0** It will decrease the size of the element)

e. If you provide the number (**<0** It will increase the size of the element but it will invert the element.)

f. **Syntax**:

```
transform: scale(number);
```

g. *scaleX()* ⇒ The scaleX() method increases or decreases the width of an element.

h. *scaleY()* ⇒ The scaleY() method increases or decreases the height of the element.

6. skew() property:

a. The skew means to pick a point and push or pull it in a different directions.

b. The *skew()* method skews an element along the X and Y axis by the given angles.

c. It accepts ***only deg***.

d. **Syntax**:

```
transform: skew (X deg, Y deg);
```

e. *skewX()* ⇒ The skewX() method skews an element along the x-axis by the given angle.

f. *skewY()* ⇒ The skewY() method skews an element along the y-axis by the given angle.

7. transform-origin() property:

a. The *transform-origin* property allows you to change the position of transformed elements.

b. **Syntax**:

```
transfrom-origin: X-axis y-axis z-axis;
```

c. Here.

i. x-axis ⇒ left, center, right, length (in px or %)

ii. y-axis ⇒ top, center, bottom, length (in px or %)

iii. z-axis ⇒ length