

CSS Gradients

1. CSS Gradients:

- a. CSS gradients let you display smooth transitions between two or more specified colors.
- b. Gradient is the combination of two or more colors. To provide a smooth transition between two colors.

2. Types of Gradients:

- a. CSS defines three types of gradients:
 - i. Linear Gradients (goes down/up/left/right/diagonally)
 - ii. Radial Gradients (defined by their center)
 - iii. Conic Gradients (rotated around a center point)

3. Linear Gradients:

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

d. Syntax:

```
background-image: linear-gradient(direction, color-stop1, color-stop2, ...);
```

e. Directions:

- i. Top to Bottom (By default) \Rightarrow to bottom
- ii. Bottom to Top \Rightarrow to top
- iii. Left to Right \Rightarrow to right

- iv. Right to Left \Rightarrow to left
- v. Top Left to Bottom Right \Rightarrow to bottom right
- vi. Bottom Right to Top Left \Rightarrow to top left
- vii. Top Right to Bottom Left \Rightarrow to bottom left

f. **Using Angles:**

- i. If you want more control over the direction of the gradient, you can define an angle, instead of the predefined directions (to bottom, to top, to right, to left, to bottom right, etc.).
- ii. **Syntax:**

```
background-image: linear-gradient(angle, color-stop1, color-stop2);
```

4. Radial Gradients:

- a. A radial gradient is defined by its center.
- b. To create a radial gradient you must also define at least two color stops.
- c. **Syntax:**

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

- d. By default, shape \rightarrow ellipse
- e. Size \rightarrow farthest-corner
- f. Position \rightarrow center
- g. The size parameter defines the size of the gradient.
- h. It can take four values:
 - i. closest-side
 - ii. farthest-side

- iii. closet-corner
- iv. Farthest-corner
- i. Example: background-image: radial-gradient(closest-side at 60% 55%, red, yellow, black);

5. Conical Gradients:

- a. A conic gradient is a gradient with color transitions rotated around a center point .
- b. To create a conic gradient you must define at least two colors.
- c. **Syntax:**

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

- d. By default, angle is *0deg* and position is *center* .
- e. If no degree is specified, the colors will be spread equally around the center point.
- f. Example ⇒ **Conic Gradient** → **Three Colors and Degrees**
background-image: conic-gradient(red 90deg, blue 180deg, yellow 270deg);

6. Repeating Linear Gradient:

- a. The *repeating-linear-gradient()* function is used to repeat linear gradients.
- b. **Syntax:** background-image: repeating-linear-gradient (red, blue 20%, yellow 40%);

7. Repeating Radial Gradient:

- a. The *repeating-radial-gradient()* function is used to repeat radial gradients.
- b. **Syntax:** background-image: repeating-radial-gradient (red, blue 20%, yellow 30%);

8. Repeating Conical Gradient:

- a. The *repeating-conic-gradient()* function is used to repeat conic gradients.
- b. **Syntax:** background-image: repeating-conic-gradient(red 10%, blue 20%, yellow 30%);