Keyframe Property in CSS

The @keyframes rule in CSS is used to define animations. It allows you to specify the behavior of an element at different stages of an animation cycle. The @keyframes is paired with the animation property to control how the animation is applied.

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Keyframe Properties:

1. @keyframes: Defines the animation name and the animation behavior at specific keyframes.

2. animation-name: Specifies the name of the keyframe.

3. animation-duration: Specifies how long the animation takes to complete one cycle.

4. animation-timing-function: Defines the speed curve (e.g., ease, linear).

5. animation-delay: Sets a delay before the animation starts.

6. animation-iteration-count: Specifies how many times the animation should repeat.

7. animation-direction: Sets whether the animation should play in reverse or alternate directions.

8. animation-fill-mode: Specifies what styles should apply before/after the animation.

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Example Program:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>CSS Keyframes Example</title>

<style>

/\* Define the keyframes for animation \*/

@keyframes slideAndFade {

0% {

transform: translateX(0);

opacity: 1;

}

50% {

transform: translateX(50px);

opacity: 0.5;

}

100% {

transform: translateX(100px);

opacity: 1;

}

}

/\* Apply animation to the element \*/

.animated-box {

width: 100px;

height: 100px;

background-color: coral;

animation-name: slideAndFade;

animation-duration: 3s;

animation-timing-function: ease-in-out;

animation-iteration-count: infinite;

animation-direction: alternate;

}

</style>

</head>

<body>

<h1>Keyframes in CSS</h1>

<div class="animated-box"></div>

</body>

</html>

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Explanation:

1. @keyframes slideAndFade:

Defines how the box will move and change opacity.

0%: Initial state (no movement, full opacity).

50%: Halfway (moved 50px, half opacity).

100%: Final state (moved 100px, full opacity).

2. .animated-box:

Uses the slideAndFade animation.

The animation runs for 3 seconds, loops infinitely, and alternates between forward and backward.

3. Output:

A coral-colored box will move back and forth horizontally while its opacity changes, creating a smooth sliding and fading effect.