Web Design

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Web Design

Styling with Cascading Styles Sheets

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CSS3 Animations

- CSS3 animations allows animation of most HTML elements without using JavaScript or Flash!
- **What are CSS3 Animations?**
  - An animation lets an element gradually change from one style to another.
  - You can change as many CSS properties you want, as many times you want.
  - To use CSS3 animation, you must first specify some keyframes for the animation.
  - Keyframes hold what styles the element will have at certain times.

CSS3 Animations

Properties of Animation:

- animation-name
- animation-duration
- animation-timing-function
- animation-delay
- animation-iteration-count
- animation-direction
- animation-fill-mode
- animation-play-state
- animation

The @keyframes Rule

- Specify CSS styles inside the @keyframes rule, the animation will gradually change from the current style to the new style at certain times.
- To get an animation to work, you must bind the animation to an element.

```
@keyframes animation-example {
        from { CSS Properties }
        to { CSS Properties }
}

@keyframes animation-example {
        0% { CSS Properties }
        100% { CSS Properties }
}
```

The @keyframes Rule

Example:

```
<html>
<head>
<style>
div {
  width: 150px;
  height: 150px;
  background-color: green;
  animation-name: sample;
  animation-duration: 4s;
    }
@keyframes sample {
  from {background-color: red;}
  to {background-color: pink;}
}
</style>
</head>
<body>
<h1>CSS Animation</h1>
<div></div>
</body>   </html>
```

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Animation direction

syntax :

```
animation-direction: normal|reverse|alternate|
alternate-reverse|initial|inherit;
```

animation-iteration-count :

syntax :

```
animation-iteration-count: number|infinite|initial|inherit;
```

animation-delay :

syntax :

```
animation-delay: time|initial|inherit;
```

Normal (default)	The animation is played as normal (forward direction).
reverse	The animation is played in reverse direction (backward direction).
alternate	The animation is played forwards first, then backwards
alternate-reverse	The animation is played backwards first, then forwards

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animation-timing-function

- **animation-timing-function** property can have the following values:

  - ease - specifies an animation with a slow start, then fast, then end slowly (this is default)
  - linear - specifies an animation with the same speed from start to end
  - ease-in - specifies an animation with a slow start
  - ease-out - specifies an animation with a slow end
  - ease-in-out - specifies an animation with a slow start and end.

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animation-timing-function

- Specifies whether the animation is running or paused

Syntax :

```
animation-play-state:paused|running|initial|inherit;
```

Example: animation_play_state.html

- **animation-fill-mode**
  - oSpecifies a style for the element when the animation is not playing (before it starts, after it ends, or both)

Syntax:
animation-fill-mode: none|forwards|backwards|both|initial|inherit;

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animation-timing-function

```
<!DOCTYPE html>
<html>
<head>
<style>
h1 {
  margin-top: 50px;
}
.animation
 {
  margin: 0 auto;
  margin-top: 70px;
  width: 250px;
  height: 250px;
  background-color: black;
  border: 15px solid #337ab7;
  animation: square-to-circle 1s .83s infinite cubic-
bezier(1,.015,.295,1.225) alternate;
}
```

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animation-timing-function

```
@keyframes square-to-circle
 {
  0%
 {
    border-radius:0 0 0 0;
    background:black;
    transform:rotate(0deg);
  }
  25%
{
    border-radius:25% 25% 25% 25%;
    background:black;
    transform:rotate(45deg);
  }
  50%
 {
    border-radius:50% 50% 50% 50%;
    background:black;
    transform:rotate(90deg);
  }
  75%
  {
     border-radius:75% 75% 75% 75%;
     background:black;
     transform:rotate(180deg);
   }
   100%
  {
     border-radius:100% 100% 100% 100%;
     background:black;
     transform:rotate(360deg);
   }
```

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animation-timing-function


```
</style>
</head>
<body>
<div class="container animated zoomIn">
  <div class="row">
    <h1 class="text-primary text-center">Square to circle
simple CSS3 Animation</h1>
<div class="animation"></div>
  </div>
</div></body>
</html>
```

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THANK YOU

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