

# Nation

# Code

CSS

Transition and Animation

{codenation}<sup>®</sup>

# Learning Objectives

- } To be able to use CSS transition and animation



# CSS Transitions.

A transition has a clear **start** and **end** state, moving from one to the other.

We use transitions when we want our CSS rules to change.

# CSS Transitions

- } Moving elements across the screen
- } Changing the size of elements
- } Changing an elements' shape
- } Combine all of the above

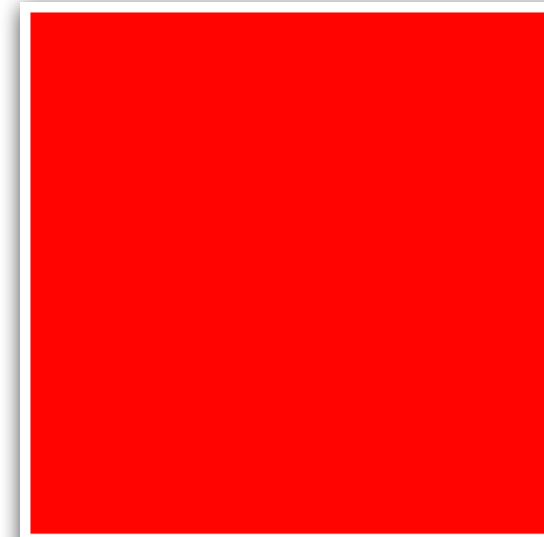
# index.html



```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <link rel="stylesheet" href="style.css">
  <title>Document</title>
</head>
<body>
  <div class="square"></div>
</body>
</html>
```

## style.css

```
.square{
  width: 300px;
  height: 300px;
  background-color: red;
}
```

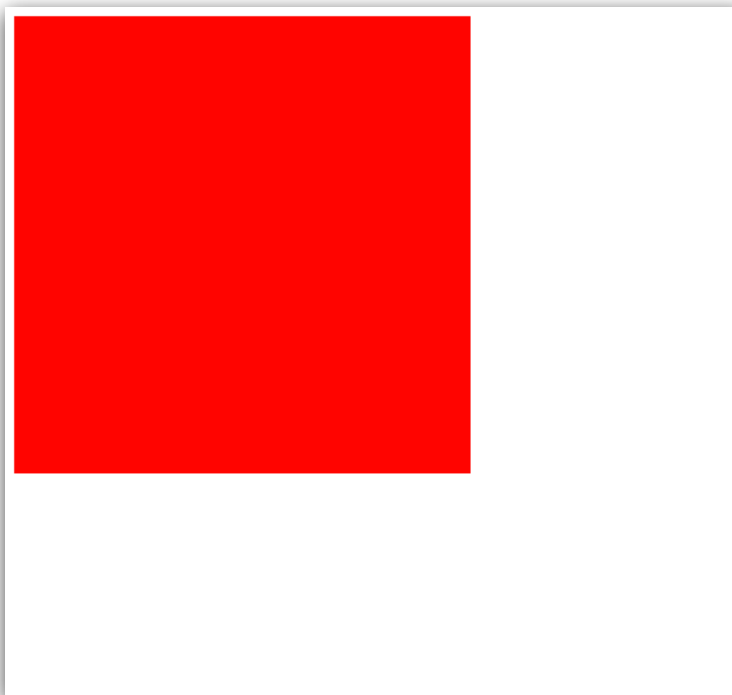


Here we have a simple div which a square is drawn with background colour red.

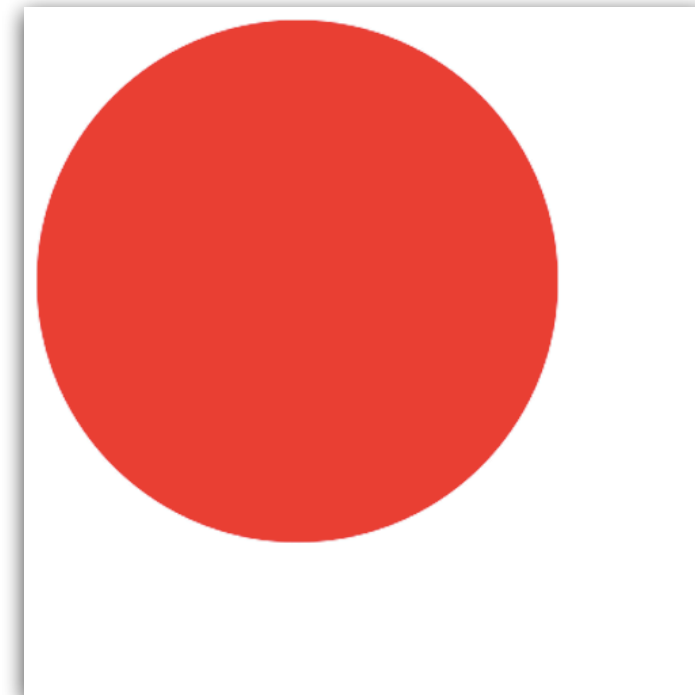
# :hover

```
.square{  
  width: 300px;  
  height: 300px;  
  background-color: red;  
}
```

```
.square:hover{  
  border-radius: 50%;  
}
```



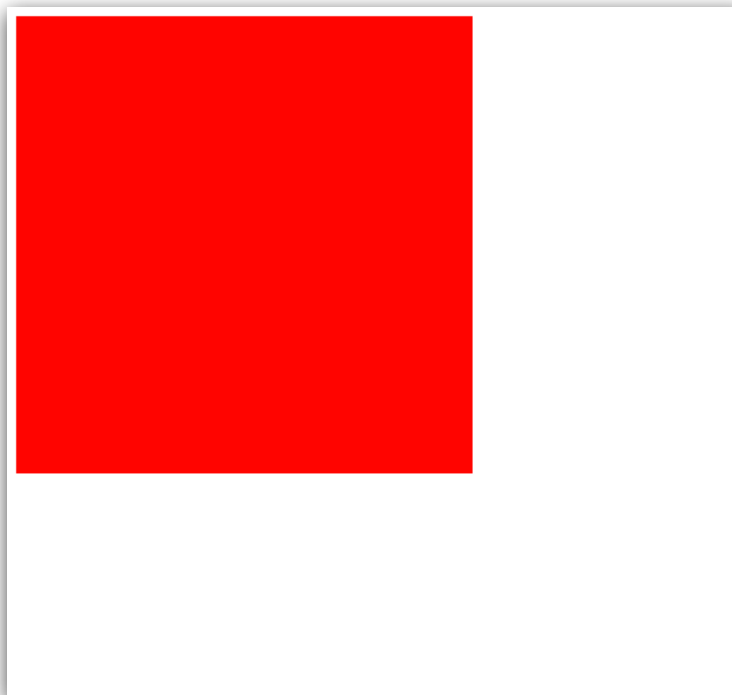
.square



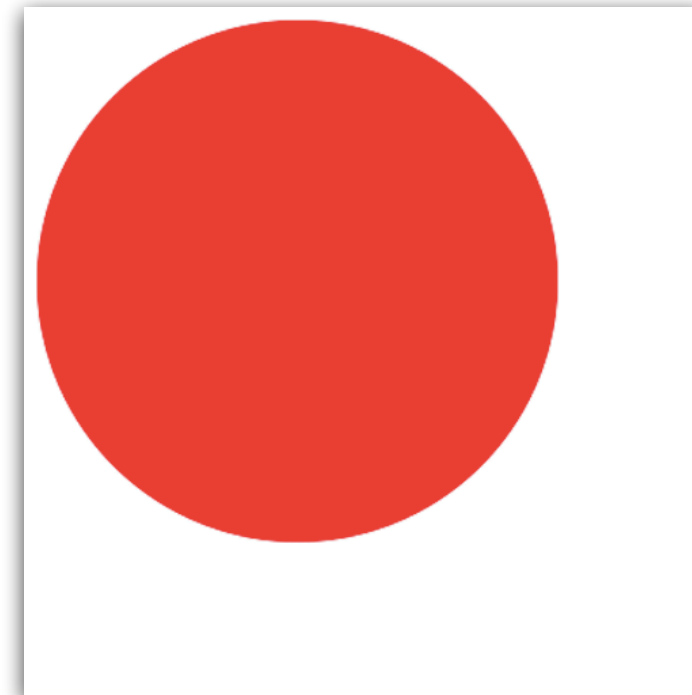
.square:hover

# :hover

```
.square{  
  width: 300px;  
  height: 300px;  
  background-color: red;  
  transition: border-radius 2s;  
}  
  
.square:hover{  
  border-radius: 50%;  
}
```



.square



.square:hover

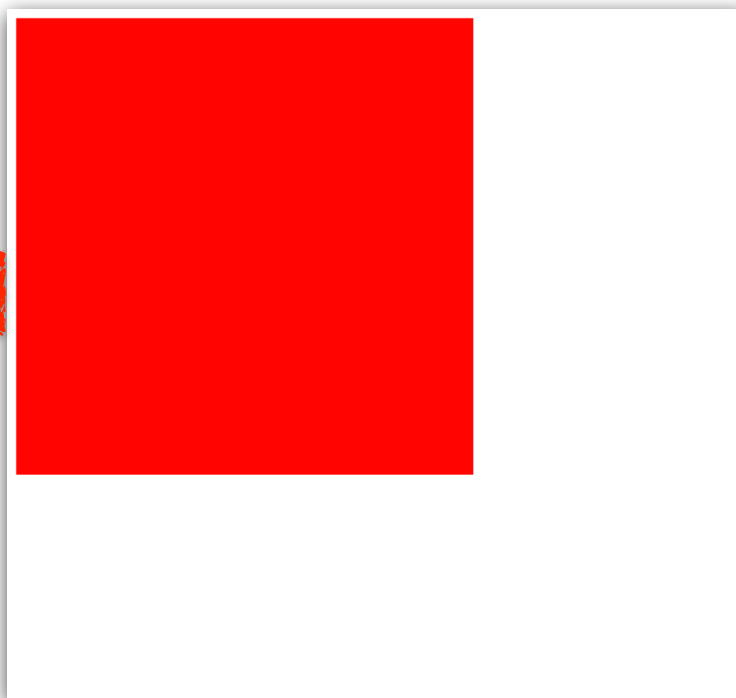
transition: border-radius 2s;



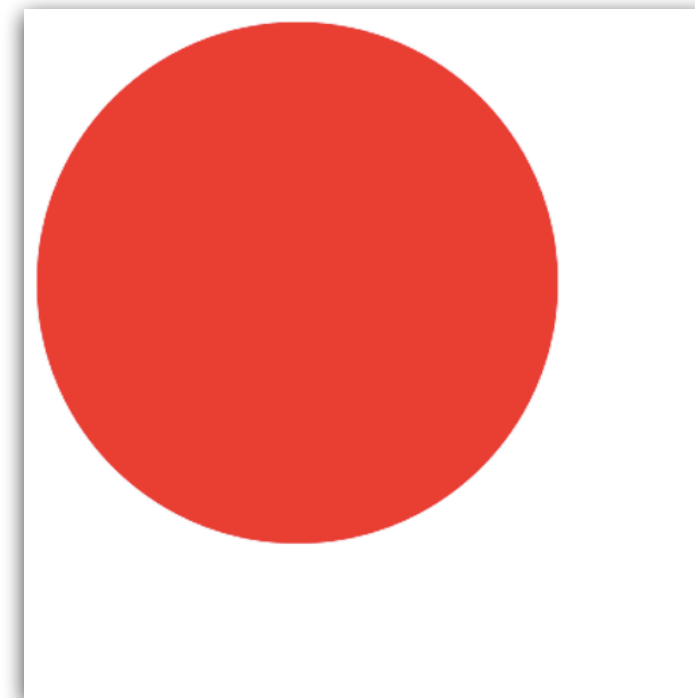
# :hover

```
.square{  
  width: 300px;  
  height: 300px;  
  background-color: red;  
  transition: border-radius 2s;  
  transition-timing-function: ease;  
}
```

```
.square:hover{  
  border-radius: 50%;  
}
```



.square



.square:hover

## Other options:

```
transition-timing-function: linear;  
transition-timing-function: ease;  
transition-timing-function: ease-in;  
transition-timing-function: ease-out;  
transition-timing-function: ease-in-out;  
transition-timing-function: cubic-bezier(0.075,  
0.82, 0.165, 1);
```

```
transition: border-radius 2s;  
transition-timing-function: ease;
```



# CSS Animations.

**CSS Animation** are similar to  
transitions

**With CSS animation we can specify lots of different CSS style changes.**

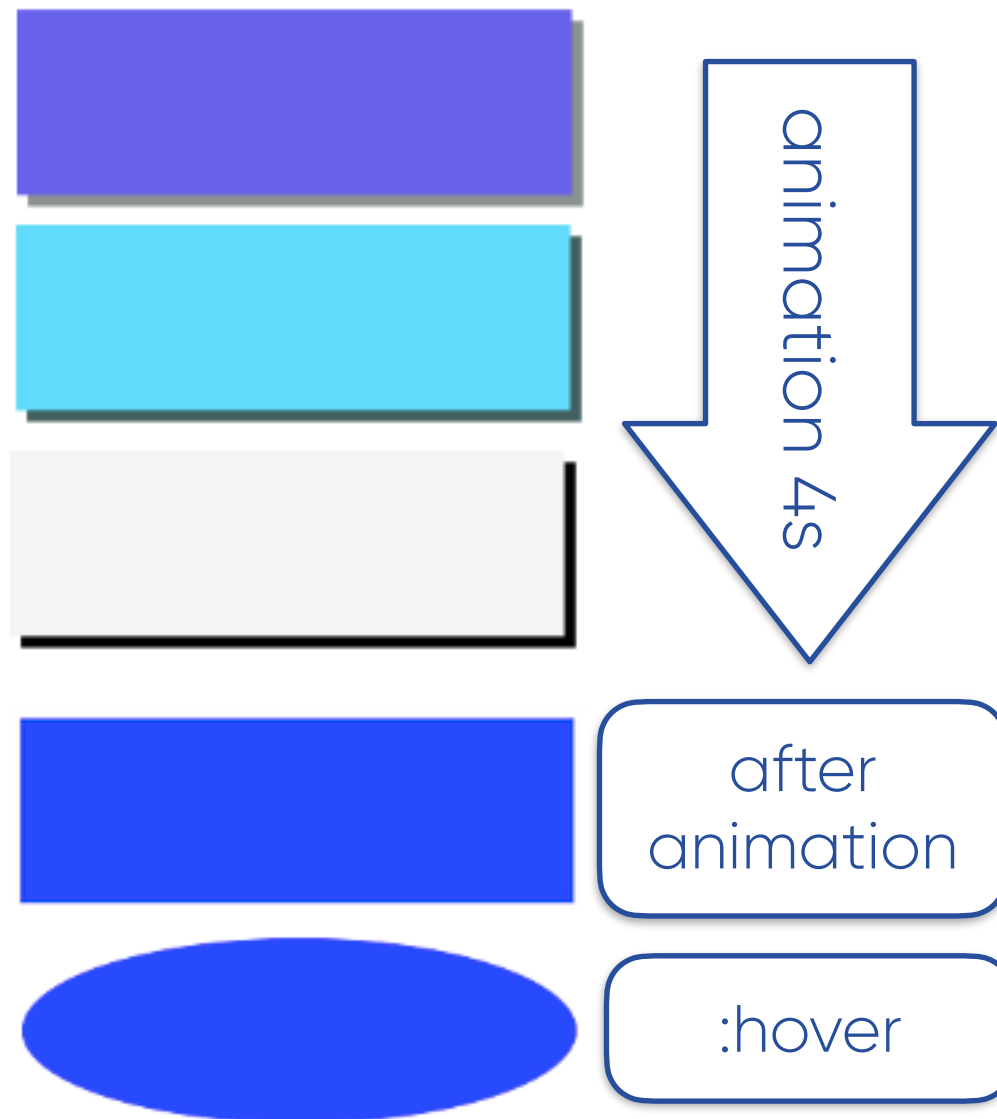
There isn't necessarily a definite start and end point (like transition) and we can write them using something called **keyframes**.

```
@keyframes yourAnimationName {  
  0% {  
    property: value;  
  }  
  100% {  
    Property: value;  
  }  
}
```

```
.square{
  width: 300px;
  height: 100px;
  background-color: blue;
  animation-name: button;
  animation-duration: 4s;
}

.square:hover{
  border-radius: 50%;
}

@keyframes button {
  0% {
    background-color: blueviolet;
    box-shadow: 6px 6px 0 darkgrey;
  }
  50% {
    background-color: aqua;
    box-shadow: 6px 6px 0 darkslategrey;
  }
  100% {
    background-color: whitesmoke;
    box-shadow: 6px 6px 0 black;
  }
}
```



# Learning Objectives

- } To be able to use CSS transition and animation



# Activity: button challenge

- } Create a html with buttons of the following:
  - } Code Nation logo in the centre of page so you can hover over it
    - } In which it spins, changes colour of button background and text
  - } 4 buttons around the logo, link to:
    - } web site
    - } facebook page
    - } twitter
    - } instagram
  - } These buttons to have:
    - } 4 different shapes
    - } shadows
    - } different animation on each one when hover
    - } change of colour when clicked and after visited
  - } Background image with at least two animations

# Tutorials and links

} CSS animation tutorials

} <https://www.youtube.com/watch?v=jgw82b5Y2MU&list=PL4cUxeGkcC9iGYgmEd2dm3zAKzyCGDtM5>

} Cubic bezier

} <https://cubic-bezier.com/>