what are transforms and transitions?

- Transforms move or change the appearance of an element, while transitions make the element smoothly and gradually change from one state to another

CSS Transitions

- CSS transitions allows you to change property values smoothly, over a given duration.

How to Use CSS Transitions?

To create a transition effect, you must specify two things:

- the CSS property you want to add an effect to
- the duration of the effect

Note: If the duration part is not specified, the transition will have no effect, because the default value is 0.

EXAMPLE 1

```css
div {
  width: 100px;
  height: 100px;
  background: red;
  -webkit-transition: width 2s; /* For Safari 3.1 to 6.0 */
  transition: width 2s;
}

div:hover {
  width: 300px;
}
```

Change Several Property Values

- The following example adds a transition effect for both the width and height property, with a duration of 2 seconds for the width and 4 seconds for the height:

EXAMPLE 2

```
<style>
div {
  width: 100px;
  height: 100px;
  background: red;
  -webkit-transition: width 2s, height 4s; /* For Safari 3.1 to 6.0 */
  transition: width 2s, height 4s;
}

div:hover {
  width: 300px;
  height: 300px;
}
</style>
```

Specify the Speed Curve of the Transition

The `transition-timing-function` property specifies the speed curve of the transition effect.

The transition-timing-function property can have the following values:

- `ease` - specifies a transition effect with a slow start, then fast, then end slowly (this is default)
- `linear` - specifies a transition effect with the same speed from start to end
- `ease-in` - specifies a transition effect with a slow start
- `ease-out` - specifies a transition effect with a slow end
- `ease-in-out` - specifies a transition effect with a slow start and end
- `cubic-bezier(n,n,n,n)` - lets you define your own values in a cubic-bezier function

EXAMPLE 3

- The following example shows the some of the different speed curves that can be used:

```
<style>
div {
  width: 100px;
  height: 100px;
  background: red;
  -webkit-transition: width 2s; /* Safari */
  transition: width 2s;
}

/* For Safari 3.1 to 6.0 */
#div1 {-webkit-transition-timing-function: linear;}
#div2 {-webkit-transition-timing-function: ease;}
#div3 {-webkit-transition-timing-function: ease-in;}
#div4 {-webkit-transition-timing-function: ease-out;}
#div5 {-webkit-transition-timing-function: ease-in-out;}

/* Standard syntax */
#div1 {transition-timing-function: linear;}
#div2 {transition-timing-function: ease;}
#div3 {transition-timing-function: ease-in;}
#div4 {transition-timing-function: ease-out;}
#div5 {transition-timing-function: ease-in-out;}

div:hover {
  width: 300px;
}
</style>
```

CSS transition Property

CSS Syntax

```
transition: property duration timing-function delay|initial|inherit;
```

EXAMPLE 4

```
<style>
input[type=text] {
  width: 100px;
  -webkit-transition: width .35s ease-in-out;
  transition: width .35s ease-in-out;
}
input[type=text]:focus {
  width: 250px;
}
</style>
</head>
<body>
<h1>The width Property</h1>

<p>Set the width of the input field to 100 pixels. However, when the input
field gets focus, make it 250 pixels wide:</p>

Search: <input type="text" name="search">
```