CSS

CSS 3

Agenda

1 **CSS 3**

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Objectives

At the end of this module, you will be able to

- Explore the new features introduced in CSS3
- Set shadows for box and text
- Use enhanced border properties
- Use enhanced background properties
- Explore transform and transition properties

CSS 3 Introduction

- As discussed earlier, several new functionalities have been added in CSS 3
- In this section, we will be having a look at the following CSS 3 properties :
  - *border-radius*
  - *text-shadow*
  - *box-shadow*
  - *border-image*
  - *background-size*
  - *transform-rotate*
  - *transform-scale*
  - *transform-skew*
  - *transition*

CSS 3 Border Radius Property

- You can use ***border-radius*** property to add rounded borders to html elements.

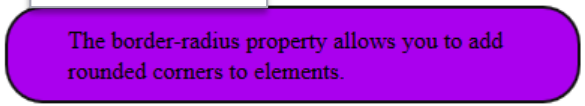
- You can also specify different values for four corners in the following manner :

```
border-top-left-radius:20px;
border-top-right-radius:20px;
border-bottom-right-radius:30px;
border-bottom-left-radius:30px;
```

Demo : border-radius

```
<!DOCTYPE html>
<html><head>
<style>
Div {
border:2px solid #111111;
padding:10px 40px;
background:#aa00ee;
width:300px;
border-radius:25px;
}
</style>
</head>
<body>
<div>The border-
  radius property allows you to add rounded corners to elements.</div>
</body></html>
```

Output :



CSS 3 Text Shadow Property

- You can use ***text-shadow*** property to apply shadow to text.

- text-shadow: *h-shadow v-shadow blur color*;

Where

h-shadow is the horizontal shadow.

v-shadow is the vertical shadow.

blur is the blur distance.

color is the color of shadow.

Demo : text-shadow

```
<html>
<head>
<style>
h1 {
text-shadow: 10px 10px 2px #FF0000;
}
</style>
</head>
<body>
<h1>This example demonstrates text shadow</h1>
</body>
</html>
```

Output :

CSS 3 Box Shadow Property

- You can use *box-shadow* property to attach one or more drop shadows to the box.

- text-shadow: *h-shadow v-shadow blur spread color*;

Where

h-shadow is the horizontal shadow.

v-shadow is the vertical shadow.

blur is the blur distance.

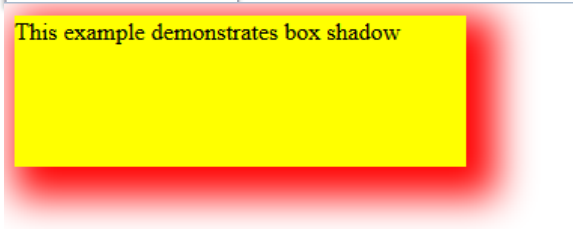
spread is the size of the shadow.

color is the color of shadow.

Demo : box-shadow

```
<!DOCTYPE html>
<html>
<head>
<style>
div {
width:300px;
height:100px;
background-color:yellow;
box-shadow: 10px 10px 25px 10px #ff0000;
}
</style>
</head>
<body>
<div>This example demonstrates box shadow</div>
</body>
</html>
```

Output :



CSS 3 Border Image Property

- You can use border-image shorthand property for setting up border-image-source, border-image-width, border-image-repeat properties.

- ***border-image:url(wonder.bmp) 30 30 round;***
- Where, *url* is used to specify the image file

Demo : border-image

```
<!DOCTYPE html>
<html>
<head>
<style>
div{
border:15px solid transparent;
width:250px;
padding:10px 20px;
}
#tiled {
border-image:url(wonder.bmp) 30 30 round;
}
```

Demo : border-image (Contd.).

```
#stretch {
border-image:url(wonder.bmp) 30 30 stretch;
}
</style>
</head>
<body>
<p>The border-image property specifies an image to be used as a border.</p>
<div id="tiled">Here, the image is tiled (repeated) to fill the area</div>
<br>
<div id="stretch">Here, the image is stretched to fill the area</div>
<p>Image that was used for demonstration :</p>
<img src="wonder.bmp">
</body>
</html>
```

Demo : border-image (Contd.).

Output :

The border-image property specifies an image to be used as a border.

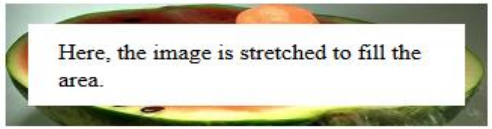


Image that was used for demonstration :

Demo : background-size

- Using this property, we will see how the background image grows in size as we keep appending the text.

```
<html>
<head>
<style>
div {
background:url(wonder.bmp);
background-size:100% 100%;
background-repeat:no-repeat;
}
</style>
</head>
```

Demo : background-size (Contd.).

```
<body >
<div style = "font-Family:arial; color:yellow; font-size:80px;”>

Welcome to Wipro.

</div>
</body>
</html>
```

Output :

Quiz

1. If we want to have a div element with box shadow effect having vertical shadow of 10px, horizontal shadow of 20px, the spread size as 40px, a blur distance of 30px and the color of shadow as red, which one of the following we will have to use:

   a) div { box-shadow: 40px 30px 20px 10px #ff0000; }
   b) div { box-shadow: 10px 20px 30px 40px #ff0000; }
   c) div { box-shadow: 20px 10px 30px 40px #ff0000; }
   d) div { box-shadow: 20px 10px 40px 30px #ff0000;}

transform:rotate method

- When you use *transform:rotate* method, the element rotates clockwise at a given degree.

- If you want rotation in anti-clockwise direction, use negative values.

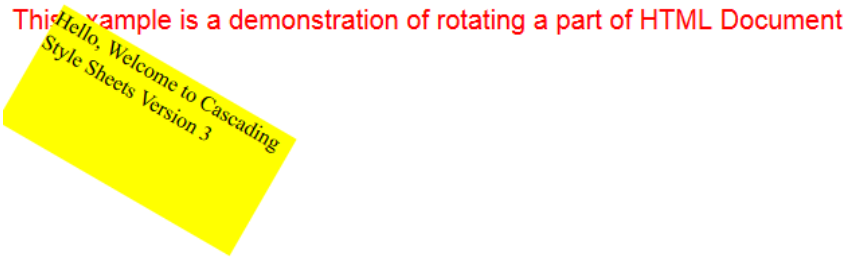
Demo : transform:rotate

```
<html>
<head>
<style>
div{
width:200px;
height:100px;
background-color:yellow;
/* Rotate div */
transform:rotate(30deg);
}
</style>
</head>
```

Demo : transform:rotate (Contd.).

```
<body>
<p style="font-family:arial; color:red; font-size:20px;">
This example is a demonstration of rotating a part of HTML Document
</p>
<div>Hello, Welcome to Cascading Style Sheets Version  3
</div>
</body>
</html>
```

Output :



transform:scale method

- When you use *transform:scale* method, the element increases or decreases in size, depending on the parameters given for the width (X-axis) and the height (Y-axis)

- The value scale(2,3) transforms the width to betwice its original size and the height thrice its original size.

Demo : transform:scale method

```
<html>
<head>
<style>
div {
width:200px;
height:100px;
margin: 0px auto;
background-color:yellow;
}
div#div2 {
background-color:cyan;
transform:scale(2,3);
}
</style>
</head>
```

Demo : transform:scale method (Contd.).

```
<body align="centre">
<p style="font-family:arial; color:red; font-size:20px;">
  This example is a demonstration of transform:scale method
</p>
<p align="center">
<div>Hello, Welcome to the training on CSS3</div>
<br><br><br><br><br>
<div align="center" id="div2" >
Hello, Welcome to the training on CSS3
</div>
</p>
</body>
</html>
```

Demo : transform:scale method (Contd.).

This example is a demonstration of transform:scale method

Output :

transform:skew method

- When you use the ***transform:skew*** method, the element turns in a given angle, depending on the parameters given for the horizontal(X-axis) and the vertical(Y-axis) lines:

- The value skew(35deg,25deg) turns the element 35 degrees around the X-axis and 25 degrees around the Y-axis.

Demo : transform:skew method

```
<html>
<head>
<style>
div {
width:200px;
height:100px;
margin: 0px auto;
background-color:yellow;
}
div#div2 {
background-color:cyan;
transform:skew(35deg,25deg);
}
</style>
</head>
```

Demo : transform:skew method (Contd.).

```
<body align="centre">
<p style="font-family:arial; color:red; font-size:20px;">
  This example is a demonstration of transform:skew method
</p>
<p align="center">
<div>Hello, Welcome to the training on CSS3</div>
<br>
<div align="center" id="div2" >
Hello, Welcome to the training on CSS3
</div>
</p>
</body>
</html>
```

Demo : transform:skew method (Contd.).

Output :

This example is a demonstration of transform:skew method

CSS3 Transitions

- With CSS3, an effect can be added, when changing from one style to another, without using Javascript or Flash animation.
- CSS3 transitions are effects that let an element gradually change from one style to another.

- For transition effect, we must :
  - Specify the CSS property for which we want to add an effect.
  - Specify the duration of this effect.

Demo : CSS Transition

```
<html>
<head>
<style>
div{
width:100px;
height:100px;
background:red;
transition:width 2s, height 2s;
}
div:hover{
width:200px;
height:200px;
transform:rotate(180deg);
}
```

Demo : CSS Transition (Contd.).

```
</style>
</head>
<body>
<p><b> Demonstration of Transition</b></p>
<div>Please hover over this object to see the transition effect!
</div>
</body>
</html>
```

Output :

Demonstration of Transition

Quiz

```
div1 {transform:rotate(30deg);}
div2 {transform:rotate(-30deg);}
```

Related to the code given above, which of the following statement is true :

a) div1 rotates 30 degrees anti-clockwise while div2 rotates 30 degrees clockwise

b) div1 rotates 30 degrees clockwise while div2 rotates 30 degrees anti-clockwise

c) Negative values have no effect. Both div1 and div2 rotate 30 degrees in clockwise direction.

d) Negative values have no effect. Both div1 and div2 rotate 30 degrees in anti-clockwise direction.

Summary

- **In this sub-module, you were able to**
  - Explore the new features introduced in CSS3
  - Set shadows for box and text
  - Use enhanced border properties
  - Use enhanced background properties
  - Explore transform and transition properties

Thank You