

Web Design & Development I

IDD103

Advanced CSS3

CSS



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Content

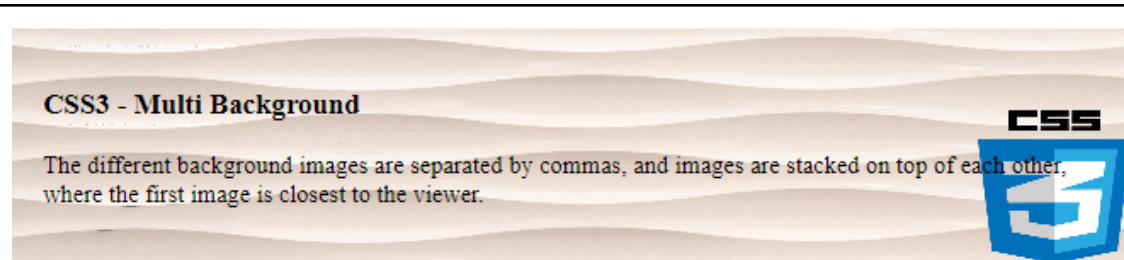
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CSS3 - Multi Background

- CSS3 Multi background property is used to add one or more images at a time without HTML code.
- **background-image** property sets the background images for an element.
- The different background images are separated by commas, and images are stacked on top of each other, where the first image is closest to the viewer.
- Example:

```
<!DOCTYPE html>
<html>
<head>
<style>
#background {
  background-image: url(css3_logo.png), url(background_img.jpg);
  background-position: left top;
  background-repeat: no-repeat, repeat;
  background-size: 100px 100px, cover;
}
</style>
</head>
<body>
  <div id="background">
    <h3>CSS3 - Multi Background</h3>
    <p>The different background images are separated by commas, and images are stacked on
top of each other, where the first image is closest to the viewer.</p>
  </div>
</body>
</html>
```

Output



- The given example has two background images, the first image is a CSS3_logo and the second is the paper background.
- **background-position** property sets the position of a background image.
- Property value for background-position

Value	Description
left top left center left bottom right top right center right bottom center top center center center bottom	If only specify one keyword, the other value will be "center"
x% y%	The first value is the horizontal position and the second value is the vertical. The top left corner is 0% 0%. The right bottom corner is 100% 100%. If you only specify one value, the other value will be 50%. Default value is: 0% 0%

- **background-repeat** property sets if/how a background image will be repeated, default value is repeated both vertically and horizontally.
- Property values for background-repeat

Value	Description
repeat	The background image is repeated both vertically and horizontally. The last image will be clipped if it does not fit.
repeat-x	The background image is repeated only horizontally
repeat-y	The background image is repeated only vertically
no-repeat	The background-image is not repeated. The image will only be shown once
space	The background-image is repeated as much as possible without clipping. The first and last image is pinned to either side of the element, and whitespace is distributed evenly between the images
round	The background-image is repeated and squashed or stretched to fill the space (no gaps)

- **background-size** property specifies the size of the background images.
- Property value for background-size

Value	Description
auto	Default value. The background image is displayed in its original size
length	Sets the width and height of the background image. The first value sets the width, the second value sets the height. If only one value is given, the second is set to "auto". Read about length units
percentage	Sets the width and height of the background image in percent of the parent element.
cover	Resize the background image to cover the entire container, even if it has to stretch the image or cut a little bit off one of the edges
contain	Resize the background image to make sure the image is fully visible






CSS - Gradients

- CSS gradients let you display smooth transitions between two or more specified colors.
- CSS defines three types of gradients:
 - Linear Gradients
 - Radial Gradients
 - Conic Gradients

Linear Gradients

- The linear-gradient creates an image consisting of a progressive transition between two or more colors along a straight line.
- You can also set a starting point and a direction (or an angle) along with the gradient effect.
- Syntax

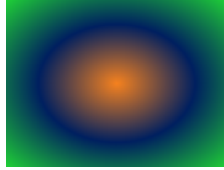
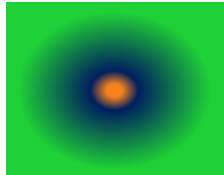
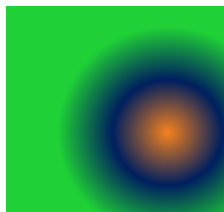
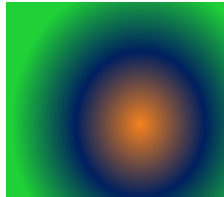
```
background-image: linear-gradient(direction, color-stop1, color-stop2, ...);
```

Direction	Example	Output
Top to Bottom (default)	<pre>background-image: linear-gradient(#f6821f, #002060);</pre>	
Left to Right	<pre>background-image: linear-gradient(to right, #f6821f, #002060);</pre>	
Diagonal	<pre>background-image: linear-gradient(to bottom right, #f6821f, #002060);</pre>	
Using angles	<pre>background-image: linear-gradient(45deg, #f6821f, #002060);</pre>	
Using multiple colors	<pre>background-image: linear-gradient(to right, red, orange, yellow, green, blue, indigo, violet);</pre>	

Radial Gradients

- A radial gradient is defined by its center.
- Syntax

```
background-image: radial-gradient(shape size at position, start-color, ..., last-color);
```

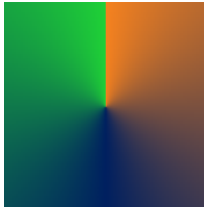
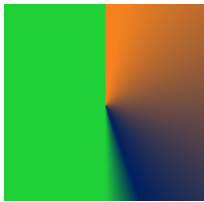

Radial gradient	Example	Output
Evenly Spaced Color Stops	<pre>background-image: radial-gradient(#f6821f,#002060,#1fd137);</pre>	
Differently Spaced Color Stops	<pre>background-image: radial-gradient(#f6821f 5%,#002060 15%,#1fd137 60%);</pre>	
closest-side	<pre>background-image: radial-gradient(closest-side at 60% 55%,#f6821f,#002060,#1fd137);</pre>	
farthest-side	<pre>background-image: radial-gradient(farthest-side at 60% 55%,#f6821f,#002060,#1fd137);</pre>	
closest-corner	<pre>background-image: radial-gradient(closest-corner at 60% 55%,#f6821f,#002060,#1fd137);</pre>	

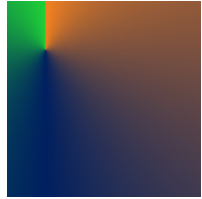
farthest-corner	<pre>background-image: radial-gradient(farthest-corner at 60% 55%,#f6821f,#002060,#1fd137);</pre>	
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Conic Gradients

- A conic gradient is a gradient with color transitions rotated around a center point.
- Syntax

```
background-image: conic-gradient([from angle] [at position,] color [degree], color
[degree], ...);
```

Conic gradient	Example	Output
Three colors	<pre>background-image: conic-gradient(#f6821f,#002060,#1fd137);</pre>	
Three colors and Degrees	<pre>background-image: conic-gradient(#f6821f 10deg,#002060 160deg,#1fd137 180deg);</pre>	
Create Pie charts	<pre>background-image: conic-gradient(#f6821f 0deg,#f6821f 45deg,#002060 45deg,#002060 200deg,#1fd137 200deg); border-radius: 50%;</pre>	
Specified from angle	<pre>background-image: conic-gradient(from 90deg, #f6821f ,#002060,#1fd137);</pre>	

Specified center position	<code>background-image: conic-gradient(at 20% 25%, #f6821f ,#002060,#1fd137);</code>	
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CSS - Shadow Effects





- CSS Shadow Effect are of two type
 - text-shadow
 - Box-shadow

Text Shadow

- CSS **text-shadow** property applies shadow to text.
- Syntax

```
text-shadow: h-shadow v-shadow blur-radius color;
```

- Property values for text-shadow

Value	Description	Example	Output
h-shadow v-shadow	Required. The position of the horizontal and vertical shadow. Negative values are allowed	<code>text-shadow: 2px 2px;</code>	
blur-radius	Optional. The blur radius. Default value is 0	<code>text-shadow: 2px 2px 2px;</code>	
color	The color of the shadow.	<code>text-shadow: 2px 2px 2px #F6821f;</code>	
Multiple shadows	To add more than one shadow to the text, you can add a comma-separated list of shadows.	<code>text-shadow: 2px 2px 2px #F6821f, 2px 2px 4px #51f61f;</code>	

Box Shadow

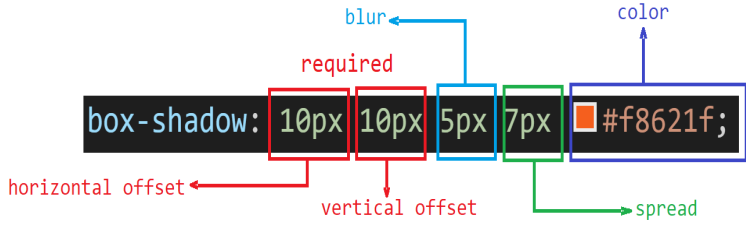

- The CSS box-shadow property is used to apply one or more shadows to an element.
- Syntax

```
box-shadow: h-offset v-offset blur spread color;
```

- Property values for text-shadow










Value	Description
h-offset	Required. Based on the positive and negative value puts the shadow on the right and left side of the box respectively.
v-offset	Required. Based on the positive and negative value puts the shadow on the below and above the box respectively.
blur	The higher the number, the more blurred the shadow will be
spread	A positive value increases the size of the shadow, a negative value decreases the size of the shadow
color	The color of the shadow.
inset	Changes the shadow from an outer shadow (outset) to an inner shadow

- Example

Code	Output
 <p>The diagram shows the CSS code <code>box-shadow: 10px 10px 5px 7px #f8621f;</code> with color-coded boxes and arrows pointing to their descriptions: 10px (horizontal offset), 10px (vertical offset), 5px (blur), 7px (spread), and #f8621f (color). A red box around the first two values is labeled 'required'.</p>	 <p>The output shows the text "GCIT" inside a white box with a thick orange shadow applied to its bottom and right sides.</p>

2D Transforms

- 2D transforms allow you to move, rotate, scale, and skew HTML elements.
- With the CSS **transform** property you can use the 2D transformation methods:

Method	Description	Example	Output
translate()	Moving the element along the X- and the Y-axis	<pre>transform: translate(50px, 50px);</pre> <p>The element is moved 50px to the right and 50px down.</p>	 
rotate()	Rotates an element clockwise or counter-clockwise according to a given degree.	<pre>transform: rotate(45deg);</pre> <p>The element gets rotated 45 degrees clockwise, -ve degrees can be used to rotate counter-clockwise</p>	 
scale()	Increases or decreases the size of an element. scaleX() to increase or decrease the width and scaleY() to increase and decrease the height of an element	<pre>transform: scale(2, 3);</pre> <p>The element is two times increased in width and three times in height.</p>	
skew()	Skews an element along the X and Y-axis by the given angles. skewX() skews an element along the X-axis by the given angle and skewY() skews an element along the Y-axis by the given angle of an element	<pre>transform: skew(20deg, 10deg);</pre> <p>Skews the element 20 degrees along the X-axis, and 10 degrees along the Y-axis</p>	 
matrix()	Combines all the 2D transform methods into one.	<pre>transform: matrix(2, -0.3, 0, 1, 2, 2);</pre> <pre>matrix(scaleX(), skewY(), skewX(), scaleY(), translateX(), translateY())</pre>	 

3D Transforms

- 3D transforms allow you to move, rotate, scale, and skew HTML elements.
- 3D transforms are like 2D but with an additional z-axis.
- The **transform** property creates the transformations.

Function	Description
<code>translate3d(x,y,z)</code>	Defines a 3D translation
<code>translateX(x)</code>	Defines a 3D translation, using only the value for the X-axis
<code>translateY(y)</code>	Defines a 3D translation, using only the value for the Y-axis
<code>translateZ(z)</code>	Defines a 3D translation, using only the value for the Z-axis
<code>scale3d(x,y,z)</code>	Defines a 3D scale transformation
<code>scaleX(x)</code>	Defines a 3D scale transformation by giving a value for the X-axis
<code>scaleY(y)</code>	Defines a 3D scale transformation by giving a value for the Y-axis
<code>scaleZ(z)</code>	Defines a 3D scale transformation by giving a value for the Z-axis
<code>rotate3d(x,y,z,angle)</code>	Defines a 3D rotation
<code>rotateX(angle)</code>	Defines a 3D rotation along the X-axis
<code>rotateY(angle)</code>	Defines a 3D rotation along the Y-axis
<code>rotateZ(angle)</code>	Defines a 3D rotation along the Z-axis

CSS Transition

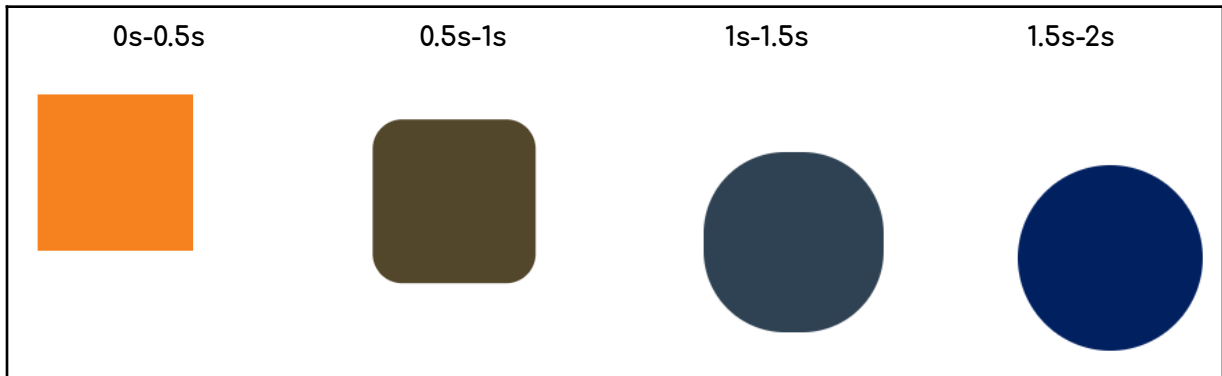
- CSS transitions provide a way to control speed when changing CSS properties over a given duration.
- Syntax

```
transition: [transition-property] [transition-duration] [transition-timing-function] [transition-delay];
```

- Example

```
<!DOCTYPE html>
<html>
<head>
  <style>
    .box {
      width: 150px;
      height: 150px;
      background: #f6821f;
      margin-top: 20px;
      margin-left: auto;
      margin-right: auto;
      transition: background-color 2s ease-out;
      transition: 2s;
    }
    .box:hover {
      border-radius: 50%;
      transform: translate(50px, 50px);
      background-color: #002060;
      cursor: pointer;
    }
  </style>
</head>
<body>
  <div class="box"></div>
</body>
</html>
```

Output



- A box with a #f6821f background that change to a #002060 background, box to a circle and move 50px to the right and 50px down when it is hovered.
- Transitions take two seconds and follow an ease-out timing function, which means the transition starts fast, then slows down towards the end.

#####Thankyou#####