

CSS Measuring Units and Backgrounds

Before we start the actual exercise, we would like to give a brief idea about the CSS Measurement Units. CSS supports a number of measurements including absolute units such as inches, centimeters, points, and so on, as well as relative measures such as percentages and em units. You need these values while specifying various measurements in your Style rules e.g. **border = "1px solid red"**.

We have listed out all the CSS Measurement Units along with proper Examples –

Unit	Description	Example
%	Defines a measurement as a percentage relative to another value, typically an enclosing element.	p {font-size: 16pt; line-height: 125%;}
cm	Defines a measurement in centimeters.	div {margin-bottom: 2cm;}
em	A relative measurement for the height of a font in em spaces. Because an em unit is equivalent to the size of a given font, if you assign a font to 12pt, each "em" unit would be 12pt; thus, 2em would be 24pt.	p {letter-spacing: 7em;}
ex	This value defines a measurement relative to a font's x-height. The x-height is determined by the height of the font's lowercase letter x.	p {font-size: 24pt; line-height: 3ex;}
in	Defines a measurement in inches.	p {word-spacing: .15in;}
mm	Defines a measurement in millimeters.	p {word-spacing: 15mm;}
pc	Defines a measurement in picas. A pica is equivalent to 12 points; thus, there are 6 picas per inch.	p {font-size: 20pc;}
pt	Defines a measurement in points. A point is	body {font-size: 18pt;}

	defined as 1/72nd of an inch.	
px	Defines a measurement in screen pixels.	p {padding: 25px;}

This chapter teaches you how to set backgrounds of various HTML elements. You can set the following background properties of an element –

- The **background-color** property is used to set the background color of an element.
- The **background-image** property is used to set the background image of an element.
- The **background-repeat** property is used to control the repetition of an image in the background.
- The **background-position** property is used to control the position of an image in the background.
- The **background-attachment** property is used to control the scrolling of an image in the background.
- The **background** property is used as a shorthand to specify a number of other background properties.

Set the Background Color

Following is the example which demonstrates how to set the background color for an element.

```
<html>
  <head>
  </head>

  <body>
    <p style = "background-color:yellow;">
      This text has a yellow background color.
    </p>
  </body>
</html>
```

Set the Background Image

We can set the background image by calling local stored images as shown below –

```
<html>
  <head>
    <style>
      body {
        background-image: url("/css/images/css.jpg");
        background-color: #cccccc;
      }
    </style>
  </head>

  <body>
    <h1>Hello World!</h1>
  </body>
</html>
```

Repeat the Background Image

The following example demonstrates how to repeat the background image if an image is small. You can use *no-repeat* value for *background-repeat* property if you don't want to repeat an image, in this case image will display only once.

By default *background-repeat* property will have *repeat* value.

```
<html>
  <head>
    <style>
      body {
        background-image: url("/css/images/css.jpg");
        background-repeat: repeat;
      }
    </style>
  </head>

  <body>
    <p>Tutorials point</p>
  </body>
</html>
```

The following example which demonstrates how to repeat the background image vertically.

```
<html>
  <head>
    <style>
      body {
```

```

        background-image: url("/css/images/css.jpg");
        background-repeat: repeat-y;
    }
</style>
</head>

<body>
    <p>Tutorials point</p>
</body>
</html>

```

The following example demonstrates how to repeat the background image horizontally.

```

<head>
    <style>
        body {
            background-image: url("/css/images/css.jpg");
            background-repeat: repeat-x;
        }
    </style>
</head>

<body>
    <p>Tutorials point</p>
</body>
</html>

```



Set the Background Image Position

The following example demonstrates how to set the background image position 100 pixels away from the left side.

```

<html>
    <head>
        <style>
            body {
                background-image: url("/css/images/css.jpg");
                background-position: 100px;
            }
        </style>
    </head>

    <body>
        <p>Tutorials point</p>
    </body>
</html>

```

The following example demonstrates how to set the background image position 100 pixels away from the left side and 200 pixels down from the top.

```
<html>
  <head>
    <style>
      body {
        background-image: url("/css/images/css.jpg");
        background-position: 100px 200px;
      }
    </style>
  </head>

  <body>
    <p>Tutorials point</p>
  </body>
</html>
```

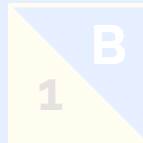
Set the Background Attachment

Background attachment determines whether a background image is fixed or scrolls with the rest of the page.

The following example demonstrates how to set the fixed background image.

```
<!DOCTYPE html>
<html>
  <head>
    <style>
      body {
        background-image: url('/css/images/css.jpg');
        background-repeat: no-repeat;
        background-attachment: fixed;
      }
    </style>
  </head>

  <body>
    <p>The background-image is fixed. Try to scroll down the
page.</p>
    <p>The background-image is fixed. Try to scroll down the
page.</p>
    <p>The background-image is fixed. Try to scroll down the
page.</p>
    <p>The background-image is fixed. Try to scroll down the
page.</p>
    <p>The background-image is fixed. Try to scroll down the
page.</p>
    <p>The background-image is fixed. Try to scroll down the
page.</p>
    <p>The background-image is fixed. Try to scroll down the
page.</p>
```



```
<p>The background-image is fixed. Try to scroll down the
page.</p>
<p>The background-image is fixed. Try to scroll down the
page.</p>
</body>
</html>
```

The following example demonstrates how to set the scrolling background image.

```
<!DOCTYPE html>
<html>
  <head>
    <style>
      body {
        background-image: url('/css/images/css.jpg');
        background-repeat: no-repeat;
        background-attachment: fixed;
        background-attachment: scroll;
      }
    </style>
  </head>

  <body>
    <p>The background-image is fixed. Try to scroll down the
page.</p>
    <p>The background-image is fixed. Try to scroll down the
page.</p>
    <p>The background-image is fixed. Try to scroll down the
page.</p>
    <p>The background-image is fixed. Try to scroll down the
page.</p>
    <p>The background-image is fixed. Try to scroll down the
page.</p>
    <p>The background-image is fixed. Try to scroll down the
page.</p>
    <p>The background-image is fixed. Try to scroll down the
page.</p>
    <p>The background-image is fixed. Try to scroll down the
page.</p>
    <p>The background-image is fixed. Try to scroll down the
page.</p>
  </body>
</html>
```

Shorthand Property

You can use the *background* property to set all the background properties at once. For example –

```
<p style = "background:url(/images/pattern1.gif) repeat fixed;">  
  This parapgraph has fixed repeated background image.  
</p>
```

