Assignment: Border Radius

Overview

In this assignment, your task is to make a sampler that demonstrates the border-radius property. Before CSS3, creating a block of color with rounded edges would require images placed in the background of nested <div> tags. This is now much easier using CSS3. In this sampler you will produce the following effects on <div> tags:

1. Identical rounded radius on all four corners

2. A perfect circle

3. A skewed curve

4. A different radius on each corner

5. The tabbed look

Step 1: Create the HTML file

1. In your samples directory, create a new HTML file named: border-radius-sampler.html

2. Add the standard <html>, <head>, <body> and <style> sections to this file.

3. In the <style> section, add definitions for <h1>, <p>, and #rounded.

4. In the <body> section, add an <h1> tag to identify the page and a <div> tag with an id of #rounded. Your file should look similar to the following example.

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4  <title>Border Radius Sampler</title>
5  <style>
6  h1 { text-align: center; }
7  p { text-align:center; color: #fff; }
8  #rounded {
9      background: #0099cc;
10     height: 200px;
11     width: 400px;
12     margin: 10px auto;
13     padding: 10px;
14     border-radius: 50px;
15 }
16 </style>
17 </head>
```

```
18  <body>
19  <h1>Border Radius Sampler</h1>
20  <div id="rounded">
21  <p>A simple rounded rectangle</p>
22  </div>
23  </body>
24  </html>
```

Step 2: Add a circle

1. In the body of your file, add a <div> tag with an id of circle.

2. In the <style> section, add a matching CSS definition.

The styling for this id, is similar to the previous example, however it has been assigned identical values of 200px for the height and width. This produces a perfect square, which is the perfect container for a perfect circle.

Note: A border-radius of 100px (half the total height or width) does not produce a perfect circle. We must also take the padding of 10px into account. The correct equation for calculating the border-radius in this case is:

$$(width + paddingFirstSide + paddingSecondSide)/2 = (200px + 10px + 10px)/2 = 110px$$

Example HTML code

```
1  <div id="circle">
2      <p>A perfect circle!</p>
3  </div>
```

Example CSS code

```
1  #circle {
2      background: #0099cc;
3      height: 200px;
4      width: 200px;
5      margin: 10px auto;
6      padding: 10px;
7      border-radius: 110px;
8  }
```

Step 3: Create skewed curves

1. In the <body> section of your file, create a new <div> with an id of #skewed.

2. In the <style> section of your file, create a CSS definition for #skewed. Include two values for border-radius separated by a slash. The first value is applied to the x-axis (vertical axis) and the second value is applied to the y-axis (horizontal axis).

Example HTML code

```
<div id="skewed">
    <p>A skewed shape!</p>
</div>
```

Example CSS code

```
#skewed {
    background:#0099cc;
    height:200px;
    width:400px;
    margin:10px auto;
    padding:10px;
    border-radius:200px / 50px;
}
```

Step 4: Create an element with for different corners

1. In the <body> section of your file, create a new <div> with an id of #four-unique.

2. In the <style> section of your file, create a CSS definition for #four-unique. Include four unique values for border-radius, each separated by a space. The following example applies a border-radius of 10px to the top left corner, 50px to top right corner, 100px to bottom right corner and 200px to bottom left corner.

Example HTML code

```
1  <div id="four-unique">
2      <p>Four unique corners!</p>
3  </div>
```

Example CSS code

```
1  #four-unique {
2      background:#0099cc;
3      height:200px;
4      width:400px; margin:10px auto;
5      padding:10px;
6      border-radius:10px 50px 100px 200px;
7  }
```

Step 5: Create a tab

Tabs are created in CSS by assigning a border-radius to the top left and right corners, and leaving the bottom corners unchanged. In the following example, a border-radius of 50px is applied only to the top left and top right corners.

1. In the <body> section of your file, create a new <div> with an id of #tab.

2. In the <style> section of your file, create a CSS definition for #tab. Include appropriate values for border-radius. The following example applies a border-radius of 15px to the top left and right corners.

Example HTML code

```
1  <div id="tab">
2      <p>the tab look</p>
3  </div>
```

Example CSS code

```
1  #tab {
2      background:#0099cc;
3      height:100px;
4      width:400px;
5      margin:10px auto;
6      border-radius:15px 15px 0px 0px;
7      padding:10px;
8  }
```

Step 6: Experiment and improve

Be creative. Seek originality. Use these examples as starting points. Modify each element in some way. Add new elements of your own creation. Combine these techniques with other CSS tricks.