Web 2350 A5-Part 2- CSS3

For most of this assignment do CUT and PASTE

CSS3 is the new standard for CSS. It is backwards-compatible with all older versions of CSS. However, it has some added features that are cool in and of themselves, or that can be used to create cool effects.

Step 1: From the starter files, open the files named **css3.html** and **css3.css** (in the styles folder).

Step 2: In the css3.css stylesheet, add a general style for paragraphs that looks something like this:

```
p {
        padding: 0px;
        padding-top: 30px;
        padding-bottom: 30px;
        text-align: center;
        width: 220px;
        border-style: solid;
        border-color: #3100B1;
        border-width: 8px;
        background-color: #6666FF;
}
```

This will be your general paragraph style.

Now let's add some CSS3.

Step 3: First you'll round the corners. You do that using the border-radius property.

```
        border-radius: 25px;
```

The bigger the number, the rounder the corners.

Create a new style for the first paragraph (para1) id. Then add the border-radius property like this:

```
#para1{
        border-radius: 25px;
}
```

Note that you can also specify the border-radius with % instead of px.

You can also specify only one corner to have a radius, e.g.,

border-top-left-radius: 100px 40px;

This specifies that the top radius is 100px and the left radius is 40px,   You can create some cool shapes using the corner radius property.

Next let's add a drop shadow to the box. You can do that using the box-shadow property.

Step 4: add to the #para1 style the following property:

```
#para1{
      border-radius: 25px;
      box-shadow: 2px 3px, 2px, #444444;
}
```

This will add a shadow that's 2px down from the top, 3px over from the left, and with a 2px blur. The color of the shadow is a dark gray. Try this in your browser. You should see a shadow down and to the right of the paragraph para1's border. If you want to have a shadow up and to the left of the paragraph, you'd use negative numbers, e.g.,

box-shadow: -3px -3px 2px #555555;

This creates a shadow outside of the paragraph's border. What if you want a shadow inside the border? You can use the inset feature:

Step 5: add to the #para1 style the following:

```
#para1{
      border-radius: 25px;
      box-shadow: 2px 3px, 2px, #444444;
      box-shadow: inset 3px 3px 3px #660044;
}
```

Load the html into your browser. Notice how you only see the inset shadow, and the drop shadow is no longer visible. This is because both are box-shadow properties, and the bottom property overrides the one(s) above it.

If you want both the inset shadow and the drop shadow, you can put both into the same box-shadow property.

Step 6: Modify your #para1 style as follows:

```
#para1{
        border-radius: 25px;
        box-shadow: inset 3px 3px 3px #660044,
                        2px 3px, 2px, #444444;
}
```

Notice that you can add multiple box-shadows within the same property. This can lead to some interesting drop shadows.

Step 7: Modify your #para1 style as follows:

```
#para1{
        border-radius: 25px;
        box-shadow: inset 3px 3px 3px #660044,
                        2px 2px 2px #0022FF,
                        4px 4px 2px #0088FF,
                        6px 6px 2px #00FFFF,
                        8px 8px 2px #00FF88,
                        10px 10px 2px #00FF00,
                        12px 12px 2px #88FF00,
                        14px 14px 2px #FFFF00,
                        16px 16px 2px #FF8800,
                        18px 18px 2px #FF0000;
}
```

You can do a bunch of fun and interesting things with shadows. For instance, to get a glowing effect, set the distance to 0px 0px and the blur to maybe 6px and you can get a sort of glowing effect for your paragraph.

That's enough for the first style. Let's create a style for your second paragraph (#para2). I want to add a shadow to the text in this paragraph. To do that I'd use the text-shadow property.

Text Shadow:

Step 8: Create a style for #para2. Add the following property:

```
#para2 {
        text-shadow: 2px 2px 2px #333333;
}
```

The text in the paragraph with the para2 id should now have a drop shadow that's 2 px down, 2px from the left, with a 2px glow, and the color should be a dark gray. You can do cool things with text shadows. For instance, try adding the following:

```
#para2 {
        background-color: white;
        color:silver;
       font-size: 300%;
       text-shadow:
       4px 4px 1px #300000,
       4px 6px 1px #400000,
       4px 8px 1px #500000,
       4px 10px 1px #600000,
       4px 12px 1px #700000,
       4px 14px 1px #800000,
       4px 16px 1px #900000,
       4px 18px 1px #A00000,
       4px 20px 1px #B00000,
       4px 22px 1px #C00000,
       4px 24px 1px #D00000,
       4px 26px 1px #E00000,
       4px 28px 1px #F00000,
       4px 30px 1px #FA0000,
       4px 32px 1px #FB0000,
       4px 34px 1px #FC0000,
       4px 36px 1px #FD0000,
       4px 38px 1px #FE0000,
       4px 40px 2px #FF0000;
}
```
You should get a dripping effect like this:

Alternatively, you can get a burning effect by adding the following (on #para3):

Step 9: Create a style for para3 and add the following properties:
```
#para3 { background-color: #333333;
       color: white;
       font-size: 300%;
       text-align:center;
       text-shadow:   0 0 4px white,
                      0 -5px 4px #FFFF33,
                      2px -10px 6px #FFDD33,
                      -2px -15px 11px #FF8800,
                      2px -25px 18px #FF2200;
}
```

You can use text-shadow property to create all sorts of cool effects – feel free to google it and see other effects you can get.

Gradients:

Using CSS gradients lets you display smooth transitions between two or more specified colors.

Browsers support two types of gradients: *linear*, and *radial*.

To create a linear gradient, you set a starting point and a direction (specified as an angle) along which the gradient effect is applied. You also define **color stops**. Color stops are the colors you want the transitions to go between and you must specify at least two of them, but can specify more to create more complex gradient effects.

Let's start with a basic linear gradient:

Step 10: Create a new style for your next paragraph (with the id para4) Add a simple linear gradient as follows:

#para4 {
        background: linear-gradient(to bottom, blue, white);
}

You should get something that looks like this:

You can change the gradient to be from left to right as follows:

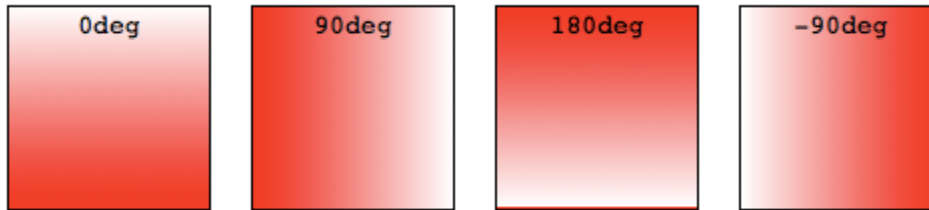   background: linear-gradient(to right, blue, white);

You can make the gradient run diagonally by specifying both the horizontal and vertical starting positions. For example:

        background: linear-gradient(to bottom right, blue, white);

Instead of saying "to bottom", you can specify the angle as follows:

        background: linear-gradient(70deg, black, white);
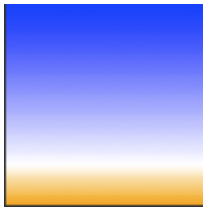
Angles are specified as follows:

You can specify more than one color in your gradient using color stops. Let's put this one in a new style for the next paragraph:

Step 11: create a new style for the id for the next paragraph (#para5). Add to the style some color stops:

```
#para5{
        background: linear-gradient(to bottom, blue, white 80%, orange);
}
```

You should get something that looks like this

If you specify the location as a percentage, 0% represents the starting point, while 100% represents the ending point; however, you can use values outside that range if necessary to get the effect you want.

Note that the first and last color stops don't specify a location; because of that, values of 0% and 100% are assigned automatically. The middle color stop specifies a location of 80%, putting it most of the way toward the bottom.

If you want more colors, you can add them.

Step 12: Add another new style for the next paragraph with the next id (#para6). Add the following:

```
#para6 {
        background: linear-gradient(to right, red, orange, yellow, green, blue);
}
```

You should get something like this.

Notice that the color stops are automatically spaced evenly when no locations are specified. If you want the colors not to be evenly spaced, you can use % values for each of the colors.
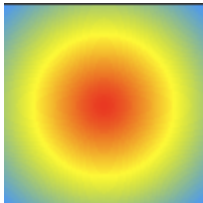
Radial gradients

Instead of a linear gradient, we can also create a radial gradient. The syntax is similar to that for linear gradients, except you can specify the gradient's ending shape (whether it should be a circle or ellipse) as well as its size. By default, the ending shape is an ellipse with the same proportions than the container's box.

You specify color stops the same way as for linear gradients. The gradient line extends out from the starting position in all directions. By default, as with linear gradients, the color stops are evenly spaced:

Step 13: Create yet another style for the next paragraph (with, the id of #para7). Add a radial gradient as follows:

#para7 {
        background: radial-gradient(red, yellow, #3388FF);
}

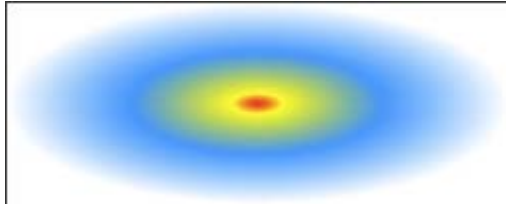You should get something that looks like this.

Just like with the linear gradient, you can specify different colors and spacing with the radial gradient. So, for instance, If you wanted to specify the locations of the color stops so that they aren't evenly spaced, you'd do it as follows:
        background: radial-gradient(red 5%, yellow 25%, #1E90FF 50%);
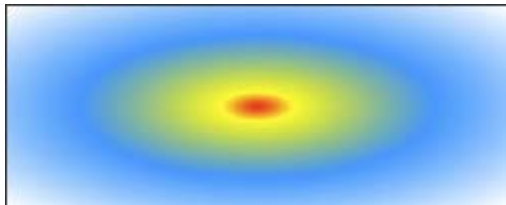You can also specify the size, which specifies the point that defines the size of the circle or ellipse. For example:

        background: radial-gradient(ellipse closest-side, red, yellow 10%, #1E90FF 50%, white);

Specifies that the size is set by the closest side, or the distance between the center and the closest edge. You might get something that looks like this:
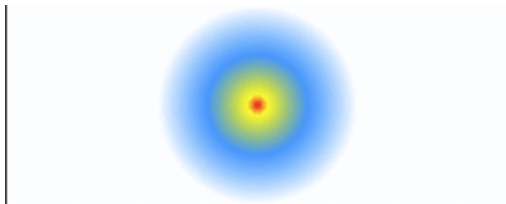
Whereas the size in this example is specified as farthest-corner, which sets the size of the gradient by the distance from the starting point to the farthest corner of the enclosing box from the center:

background: radial-gradient(ellipse farthest-corner, red, yellow 10%, #1E90FF 50%, white);

And this uses closest-side, which determines the circle's size as the distance between the start point (the center) and the closest side.

background: radial-gradient(circle closest-side, red, yellow 10%, #1E90FF 50%, white);

Here, the circle's radius is half the height of the box, since the top and bottom edges are equidistant from the start point and are closer than the left and right edges.

Repeating gradients

We can make a gradient repeat again and again. This is easier to see than to explain, so let's try it:

Step 14: Create yet another style for yet another paragraph. (we're on #para8 now). Add the following style:

#para8 {
        background: repeating-linear-gradient(-45deg, red, red 5px, white 5px, white 10px);
}

This specifies that you want the gradient to go from red to white every 10 px, and, instead of a gradual transition between colors, we want the red to go for 5px, and then the white to go for 5px. We want this to repeat at a-45 degree angle. You'll get something that looks like this:

Note: try it just specifying how large you want the gradient to be as follows:

> background: repeating-linear-gradient(-45deg, red, white 10px);

That looks pretty cool too.

You can do the same for a radial blur as follows:

> background: repeating-radial-gradient(black, black 5px, white 5px, white 10px);

And you'll get something that looks like this:

Again, try it like this:
> background: repeating-radial-gradient(black,white 10px);

and you should get a cool look as well.

Opacity and Transparency

CSS3 allows you to set the opacity as a property of your style. To see this, you must first create a background with an image.

Step 15: In your HTML code, around paragraph 9 there's a div with an id of "ghosts". Now create a style for #ghosts that includes a bunch of padding and a background image. It might look like the following:

```
#ghosts {
        background-image: url("../images/ghosts.gif");
        height: 300;
        width: 450;
        border-style: solid;
        border-width: 5px;
        border-color: #CCCCCC;
}
```

*Assumes you are in the styles folder and have a separate images folder above you containing the ghosts.gif image.

Step 16: Now add a style for the paragraph with the id #para9:

#para9 {

        font-color: black;

        width: 275px;

        height: 125px;

        border-style: solid;

        border-color: orange;

        border-width: 5px;

        background-color: white;

        margin: 0;

        margin-top: 30px;

        padding: 10px;

}

Look at it in your browser. For me, the transition between the dark background image and the white paragraph background was just too abrupt. To modify that, you can add an opacity setting. With the opacity setting, 0 is transparent and 1 is completely opaque. So .5 is like 50% transparent.

Step 17: Add an opacity setting to the #p9 style as follows:

#para9 {

        font-color: black;

        width: 275px;

        height: 125px;

        border-style: solid;

        border-color: orange;

        border-width: 5px;

        background-color: white;

        margin: 0;

        margin-top: 30px;

        padding: 10px;

        opacity: .5;

}

Save this and look at it in the browser. You should see the ghost image showing through in your paragraph para9's background.

Note that the amount of opacity is always dependent on the opacity setting of the tag below it. So, for instance, if we'd set the opacity of the ghosts tag to .5, then the ghosts tag would have 50% transparence. Then if we wanted para9 to be a solid white, we couldn't do it. Because even if we set the opacity of para9 to be 1 (completely opaque), it would be at most as opaque as the tag below it, or the ghost tag, so it would only be 50% opaque. This is confusing and can be frustrating, so be aware of it when using opacity for styling.

You can also set a linear (or radial) gradient over a background image. The trick here is that instead of using hex numbers to represent colors, you must use rgba color representation, with r being the amount or red, g being the amount of green, b being the amount of blue, and a (alpha) being the amount of transparency. Let's try it:

Step 18: Add yet another style for yet another paragraph (#para10). Make sure to give it a background image:

#para10 {
background: url("../images/ghosts.gif");
 }

Step 19: Now add a linear gradient on top of the background image as follows (Note that the linear gradient has to come before the image when specifying the background property:
#para10 {
        background: linear-gradient(to right, rgba(255,255,255,0),rgba(255,255,255,1)),
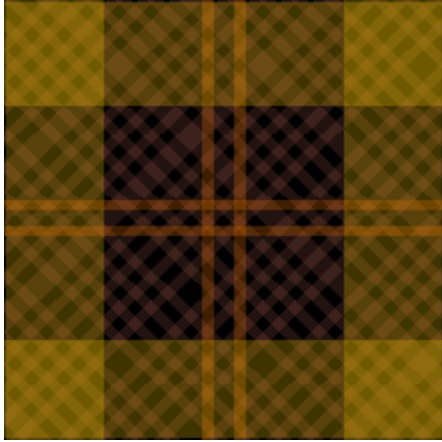url("../images/ghosts.gif");
 }

You might get something like this:

In the rgb values, the 0 represents complete transparency, and the one represents complete opacity, or white.

Cool Effects:
Using the repeating linear gradient, you can create a plaid background as follows:
Step 20: Create the following style for #para11:
#para11 {
        background-color: #000;
        background-image: repeating-linear-gradient(90deg, transparent, transparent 50px,
            rgba(255, 127, 0, 0.25) 50px, rgba(255, 127, 0, 0.25) 56px, transparent 56px, transparent 63px,
            rgba(255, 127, 0, 0.25) 63px, rgba(255, 127, 0, 0.25) 69px, transparent 69px, transparent 116px,
            rgba(255, 206, 0, 0.25) 116px, rgba(255, 206, 0, 0.25) 166px),
        repeating-linear-gradient(0deg, transparent, transparent 50px, rgba(255, 127, 0, 0.25) 50px,
            rgba(255, 127, 0, 0.25) 56px, transparent 56px, transparent 63px, rgba(255, 127, 0, 0.25) 63px,
            rgba(255, 127, 0, 0.25) 69px, transparent 69px, transparent 116px, rgba(255, 206, 0, 0.25) 116px,
            rgba(255, 206, 0, 0.25) 166px),
        repeating-linear-gradient(-45deg, transparent, transparent 5px, rgba(143, 77, 63, 0.25) 5px,
            rgba(143, 77, 63, 0.25) 10px),
        repeating-linear-gradient(45deg, transparent, transparent 5px, rgba(143, 77, 63, 0.25) 5px,
            rgba(143, 77, 63, 0.25) 10px);
 }

To create a retro look using text shadow, create the following:

Step 21: Create a style for the next paragraph (p12). Add the following text shadows #para12 {

       color: #555555;

       background-color: #EEEEEE;

       text-shadow: 5px 5px 0px #eee, 7px 7px 0px #707070;

}

Save this. You should get a cool almost 3-d retro look.

To get a neon glow, do the following:

Step 22: Create yet another style for yet the next paragraph:

```
#para13 {
        background-color: black;
        color: white;
        text-shadow:    0 0 10px #ffffff,
                        0 0 20px #ffffff,
                        0 0 30px #ffffff,
                        0 0 40px #ff00de,
                        0 0 70px #ff00de,
                        0 0 80px #ff00de,
                        0 0 100px #ff00de,
                        0 0 150px #ff00de;
}
```

That's it. There are many more cool effects you can do with css3, but I think that's enough this assignment. If you're interested in trying other effects, google "CSS3 cool effects" and you'll get tons of hits.