

## Exercise 15 CSS3 Cool Features

### Section 1. Adding Background

As part of our overall style, we want a neat image of an octopus to appear in the background of the <body> area.

Follow these steps put this image in the bottom right corner:

1. Copy the exercise 15 folder from the zip file to your Exercises folder.
2. Find the " SiteStyle/octopus.png" image file in the Exercise15 folder , copy that file into your "Aquamaniacs/SiteStyle" folder. Note: don't copy the whole exercise 15 folder to your Aquamaniacs project folder, only copy the files, and make sure the destination directory is correct.
3. Open "global.css" from your Aquamaniacs project, SiteStyle folder in Komodo Edit and add a new rule for the <body> near the top. Place this rule above all other style rules, but below the two @font-face declarations.

```
body {  
  font-family: Verdana, Helvetica, Arial, sans-serif;  
  color: #000000;  
  font-size: 0.9em;  
  font-weight: normal;  
  padding: 0;  
  margin: 0;  
  background: #FFFFFF url(octopus.png) no-repeat right bottom;  
  background-size: contain;  
}  
p {
```

This rule is setting the defaults for all elements in the body! In cases where you have rules for more specific elements like <p>, <h1>, or <article>, those more specific rules will take effect. But anywhere not already covered by a rule will follow the main <body> styles.

The <body> rule sets a default font-family, color, font-size, and font-weight. It removes all padding and margin. The biggest change is the addition of a white background with an "octopus.png" image that will float to the bottom-right corner without repeating. By setting the background-size property to "contain", we also tell the browser to automatically scale the image up as large as possible to fill the body without cutting off any part of the image.

When you are finished, save your "global.css" and load up several of your website pages in the web browser. You should see a cool octopus lurking in the bottom right corner of every web page!

Questions:

1. What are the new CSS properties have you learned from this exercise?
2. Try different values of paddings, margin, font-weight, what difference do you see
3. Background properties have these properties and values:  
background-image: url(xxx.png), url(xxx.png);  
background-repeat: no-repeat; or no-repeat  
background-position: bottom; or right, top, etc.

background-size: contain; or Auto xxxpx or auto 100%

Background-color: white; or anything you can think of

Try these values in your exercise. Place another image in your SiteStyle folder, and use multiple image links in the background-image value field. See what happens.

## Section 2. Work with Gradient

Let's work with some gradients on a new Aquamaniacs page called "Groovy Fish". We have already created the HTML page for you, so you'll just need to find the page and new fish image in the flash drive and copy them over to your project. Then you can apply some CSS rules to see gradients in action.

1. Find the " SiteStyle/ fish.png" image file in the Exercise15 folder , copy that file into your "Aquamaniacs/SiteStyle" folder. Note: don't copy the whole exercise 15 folder to your Aquamaniacs project folder, only copy the files, and make sure the destination directory is correct.
2. Find the "groovyfish.html" in Exercise15 folder. Copy the file to your Aquamaniacs folder. Then confirm you have the following files in the correct locations:
  - a. "Aquamaniacs/groovyfish.html"
  - b. "Aquamaniacs/SiteStyle/fish.png"
3. Load the "groovyfish.html" file in your web browser to see the default content. To start, the page will just show some lines of text underneath the headlines.
4. Now load the "groovyfish.html" file into Komodo Edit and find the "#MainContent" area. You can see that each line of text is in a <div> with a unique id. You will not have to make any changes to this file; instead we will apply CSS rules against these unique ids.

```
<div id="MainContent">
```

```
<h1>Crazy Environments</h1>
```

```
<h2>Swimming with Colors</h2>
```

```
<div id="gradient1">Default linear 2 colors</div>
```

```
<div id="gradient2">Top Left linear with 4 colors</div>
```

```
<div id="gradient3">Positioned linear with overlapping color stops</div>
```

```
<div id="gradient4">Default radial with 2 colors</div>
```

```
<div id="gradient5">Bottom radial with 3 colors</div>
```

```
<div id="gradient6">Positioned radial with 5 color stops</div>
```

```
</div><!-- end of MainContent -->
```

5. Now, load the "global.css" file in Komodo Edit and go down to the bottom. Add the following new rule to style all of the "gradient1" through "gradient6" elements as a group.

```
#gradient1,#gradient2,#gradient3,#gradient4,#gradient5,#gradient6 {
```

```
width: 150px;
```

```
height: 150px;
```

```
float: left;
```

```
margin: 5px;
```

```
padding: 5px;
```

```
border: 2px solid #CCCCCC;
```

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

```
box-shadow: 8px 8px 7px rgba(0,0,0,0.6);
```

```
font-weight: bold;
```

```
text-align: center;
font-size: large;
}
```

When you save your "global.css" changes and reload "groovyfish.html", you should see each <div> is now a nicely rounded and positioned box with bold, centered text.

Each box is going to contain a background with a fish image and a gradient. Remember, you can layer backgrounds just by listing them in order, separated by commas. So we will list the image first to put it on top, and the gradient second to put it under the image.

- Now, add the following individual style rules for "#gradient1" and "#gradient4" at the bottom of "global.css".

```
#gradient1 {
background-image:url("fish.png"),
linear-gradient(red, yellow);
background-repeat: no-repeat;
background-position: right bottom;
}
```

```
#gradient4 {
background-image:url("fish.png"),
radial-gradient(pink,blue);
background-repeat: no-repeat;
background-position: right bottom;
}
```

- When finished. Save your "global.css" and reload "groovyfish.html" in your web browser. You should see the two left-hand boxes now contain fish images and a groovy linear or radial gradient!
- You can experiment with different gradient colors to see what cool effects you can make on your own. You will complete the remaining 4 gradients as part of the activity at the end of this chapter.

### Questions after exercise:

- Review how to set an image in the background.
- Review background properties: what properties from section 1 have you used in this section?
- What is the # sign in the CSS reference to? Have you used this technique before?
- Background can have gradients in different colors and different gradient style, they are defined as  
background: linear-gradient(starting color, ending color)  
background: radial-gradient(starting color, ending color)  
You can use multiple colors even:  
background: radial-gradient(yellow, orange, green, blue, pink, purple);  
Try these different values, colors in your exercise. Try at least 5 different pairs and gradient styles.

## Section 3. Transformation

We are going to set up a new page called "Funny Fish 1" to show image transformations. Follow the steps below to get ready for transforms!

1. As you copied the files in Section 1 and Section 2, you should have the following files in the correct location. If not, copy them from your exercise 15 folder to the correct folders in Aquamaniacs. Note: don't copy the whole exercise 15 folder to your Aquamaniacs project folder, only copy the files, and make sure the destination directory is correct. You should see the following files afterwards:
  - a. "Aquamaniacs/funnyfish1.html"
  - b. "Aquamaniacs/SiteStyle/fish1.jpg"
  - c. "Aquamaniacs/SiteStyle/fish2.jpg"
  - d. "Aquamaniacs/SiteStyle/fish3.jpg"
  - e. "Aquamaniacs/SiteStyle/fish4.jpg"
2. Load the "funnyfish1.html" file into your web browser to see the default page.  
Just like our Groovy Fish gradients page, this page contains individual <div> elements with unique ids "fish1" through "fish4". Take a look at the HTML page in Komodo Edit and make sure you understand the layout.
3. We want to add some style rules to "global.css" to arrange these <div> elements into rounded boxes with unique fish images. Open your "global.css" file in Komodo Edit and move down to the very bottom of the page, and add the rules shown below. Because the rules are fairly long, you can copy and paste the rules directly from the code box.

```
#fish1,#fish2,#fish3,#fish4 {  
    width: 100px;  
    height: 80px;  
    float: left;  
    margin: 5px;  
    padding: 5px;  
    border: 2px solid #CCCCCC;  
    border-radius: 25px;  
    box-shadow: 8px 8px 7px rgba(0,0,0,0.6);  
    font-weight: bold;  
    text-align: center;  
    font-size: 12px;  
    background-color: #FFFFFF;  
    background-repeat: no-repeat;  
    background-size: contain;  
    background-position: bottom;  
}  
#fish1 {  
    background-image: url("fish1.jpg");  
}  
#fish2 {  
    background-image: url("fish2.jpg");  
}  
#fish3 {  
    background-image: url("fish3.jpg");  
}  
#fish4 {  
    background-image: url("fish4.jpg");  
}
```

These rules make each of the sections appear as a rounded box with a specific size, shadow, and floating location. Each box will also have a different fish image on top.

4. Save your "global.css" changes and load "funnyfish1.html" into your web browser.

Now each <div> should appear as a rounded box with bold, centered text and a different color fish image in each box. In the next section, you will start adding transformations to each box using new CSS3 style rules.

We want each of the fish on our "Funny Fish 1" page to transform when the user hovers a mouse over the elements. Let's add some rules to our CSS page to make this happen!

5. Open your "global.css" in Komodo Edit
6. Add the following two style rules at the very bottom:

```
#fish1:hover
{
    transform: translate(80px,50px);
    -webkit-transform: translate(80px,50px);
}

#fish2:hover
{
    transform: rotate(40deg);
    -webkit-transform: transform: rotate(40deg);
}
```

7. Save your "global.css" changes and load "funnyfish1.html" in your web browser. The first two fish elements should now move and rotate when you hover the mouse over each element.
8. Experiment with different values for the translate() and rotate() styles. See how you can move and rotate the elements using different numbers. You'll get a chance to apply some other special effects to the remaining fish in the chapter activity!

### Questions After Exercise:

1. What syntax did you use to define a section in the html, then define and apply style sheet to that section?
2. What properties did you use in this section to define the position of the image, compare them with section2.
3. This exercise is about transforming an image, changing the shape and position of an image. You can use the following techniques to do
  - a. translate(X,Y)  
background: url("mouse-peeking.png") bottom no-repeat;  
transform: translate(150px,50px);
  - b. Rotate(deg)  
background: url("mouse-peeking.png") bottom no-repeat;  
transform: rotate(30deg);
  - c. Scale(X,Y)  
background: url("mouse-peeking.png") bottom no-repeat;  
transform: scale(0.5,2.0);
  - d. Scale(X,Y)  
background: url("mouse-peeking.png")  
bottom no-repeat;  
transform: scale(0.5,2.0);

Which technique have you used in this exercise? Try use different values in your practice. Try other techniques from the above list.