

Exercise 13 Figures and Annotations

Section 1. Watery Pictures

You are now going to create several figures and captions on a new page called "creatures.html".

1. First, click on Exercise13 folder containing a number of starter files. Save this file to your "Exercises" folder and un-zip the contents into your "Aquamaniacs" directory.
2. Verify that the following new starter files and folders are now located within your Aquamaniacs directory:
 - a. creatures.html
 - b. PagePhotos/tufted-puffin.jpg
 - c. PagePhotos/plumose-anemone.jpg
 - d. PagePhotos/wolfeel.jpg
3. Load your "creatures.html" file in a web browser to confirm it looks right. The page should show three pictures, each with its own headline.
4. Run Komodo Edit, open the "creatures.html" file, and find the "MainContent" area shown below. There are three groups of headline `<h2>` and `` elements.

```
<div id="MainContent">
  <h1>Water Creatures</h1>
  <h2>A Tufted Puffin</h2>
  
  <h2>A Plumose Anemone</h2>
  
  <h2>A Wolf Eel</h2>
  
</div> <!-- end of MainContent -->
```

5. Now, add `<figure>` and `<figcaption>` elements around each of the three groups of headlines and images. Also make the `<figure>` element float to the left. Use your imagination to come up with the best captions! Here is an example for the first picture:

```
<figure style="float:left">
  <h2>A Tufted Puffin</h2>
  
  <figcaption>This is my happy face.</figcaption>
</figure>
```

6. Repeat the addition of `<figure>` and `<figcaption>` elements for the other two pictures.
7. When you are done, reload your "creatures.html" page in your web browser and confirm that each picture now has a caption. The figures should also flow left to right, depending on the size of your browser window.

Section II Aquarium Annotations

In this activity you are going to add a new "Aquarium" page to your Aquamaniacs website. The aquarium will have an annotated image of fish swimming in the fish tank.

1. Verify the following starter files in your Aquamaniacs directory:
 - a. aquarium.html
 - b. PagePhotos/aquarium.jpg
2. Load the "aquarium.html" file from your Aquamaniacs folder into your web browser and make sure you can see the picture and list of annotations underneath the caption.

You will not have to make any changes to "aquarium.html" for this activity. All of your work will be inside the "global.css" file.

3. Now, load your "Aquamaniacs/SiteStyle/global.css" file in your Komodo Edit software. Scroll down to the bottom of the page, and add the three styles for "annotated" class figures, lists, and list items exactly as described in the lesson.

```
.annotated {  
  position:relative;  
}  
.annotated ul {  
  list-style:none;  
  position:absolute;  
  top:0;  
  left:0;  
  font-size:16px;  
}  
.annotated li {  
  position:absolute;  
  width: 50px;  
  height: 40px;  
  padding: 5px;  
  background-color:rgba(255,255,255,0.8);  
}
```

4. Save your changes and reload "aquarium.html" in your web browser. You should now see the "Fish1" through "Fish7" annotations appear in different places on the image.

Section III Dynamic Fish Annotations

Let's return to our new "Aquarium" page showing fish in a tank. Right now the annotations are fixed in place. Let's use our new text-indent and cursor styles with the ":hover" state to improve the behavior.

1. Run Komodo Edit and load your "global.css" file. Scroll down to the bottom so you can make the same modifications to your annotated list items that we described in the lesson above.
2. First, modify the existing ".annotated li" rule to remove the background-color and add a text-indent with a large negative value. That way, the annotations will be completely hidden by default (when the mouse is somewhere else).

```
.annotated li {  
  position:absolute;  
  width: 50px;  
  height: 40px;  
  padding: 5px;  
  /* background-color:rgba(255,255,255,0.8); */  
  text-indent: -9999px;  
}
```

3. Then, add a new ":hover" rule for the entire annotated figure that will make the background boxes appear when the mouse is hovering over the whole figure.

```
.annotated:hover li  
{  
  border:2px solid black;  
  background-color:rgba(255,255,255,0.8);  
}
```

4. Finally, add a new ":hover" rule for the individual annotated list items to make the text appear on a solid white background when the mouse is hovering over the box.

```
.annotated li:hover  
{  
  background-color: white;  
}
```

```
text-indent: 0px;
cursor: default;
}
```

5. Save your changes to "global.css" and reload "aquarium.html" in your web browser. Does it behave the way you expect? You should see no annotations or background boxes when the mouse is off the <figure> area entirely.

Moving the mouse cursor anywhere within the <figure> element should make the annotation background boxes appear.

Finally, hovering the mouse over one of the boxes will make that annotation text visible.

Section IV Leaping Dolphins

In this activity, you are going to add some site-wide styles to your figures and captions, and then test them out with a new figure on the "Dolphins" page. You'll also add some styling to the <footer> to improve the overall look of your pages.

To begin, you need to copy a new image into your Aquamaniacs project. In the Exercise13 Folder in the flash drive, extract the "PagePhotos/dolphin.jpg" into your "Aquamaniacs/PagePhotos" directory, and extract the "SiteStyle/footer-gradient.png" file to your "Aquamaniacs/SiteStyle" directory.

Adding the Dolphin Image

Your first step is to add a <figure> and <figcaption> to "dolphins.html". Load "dolphins.html" into Komodo Edit and find the top paragraph.

1. Insert a new <figure> in between these lines:

```
<h2>Smart, Strong and Fast</h2>
<figure>
```

```
</figure>
```

```
<p>Dolphins are a small marine mammal closely related to . . .
```

2. Inside the <figure> add an element to display the "PagePhotos/dolphin.jpg" file. The image has a width of 280 pixels and a height of 333 pixels.
3. Underneath the element, add a new <figcaption> element with the text "A dolphin jumping at the Vancouver Aquarium".
4. Save your "dolphins.html" file and load it into your web browser. Your top area should now contain the image with caption.

Next you'll apply some styles so the article flows nicely around the image.

Styling Figures and Captions

Open your "global.css" file in Komodo Edit and scroll down to the bottom. Add two new style rules for the <figure> and <figcaption> elements.

```
figure {
}
figcaption {
}
```

Then, add the following properties inside the <figure> rule:

- Set the float to "left"
- Set the text-align to "center"
- Set the margin to "0px 15px 20px 0px"

- Set the padding to "0"

Next, add the following properties inside the <figcaption> rule:

- Set text-align to "center"
- Set font-weight to "bold"
- Set font-size to "10px"

Finally, we would like to add a black border around all elements inside a <figure>. Add a new rule at the bottom of "global.css" with a selector of "figure img" like this:

```
figure img {
  border: 10px solid #000000;
}
```

Save your "global.css" changes and reload "dolphins.html" in your web browser. The article text should now wrap around the side of the image with some nice margins and spacing. The caption should appear in small bold letters underneath the center of the image.

All of the changes you made to "global.css" will apply equally well to all <figure> and <figcaption> elements on your website. If you load your "creatures.html" page you should also see the images floating next to each other with the same margins, small, centered captions, and black border.

Styling Footers

In one last bit of housekeeping, let's improve the overall look of our site's <footer> element. Right now it's just small, boring text at the bottom of each page.

We are going to add a background gradient image and some other styles. You should already have a "footer-gradient.png" image in your "SiteStyle" directory after extracting the ZIP contents at the beginning of the activity.

Now, open your "global.css" file in Komodo Edit and make the following changes:

1. Scroll down to the bottom and add a new style rule for the <footer> element.
2. Inside that style rule, set the following properties:
 - Set clear to "both"
 - Set font-weight to "bold"
 - Set color to "white"
 - Set font-size to "12px"
 - Set margin to "0"
 - Set padding to "5px"
 - Set background to "#717B32 url(footer-gradient.png) repeat-x 0px -25px"
 - Set text-align to "center"

The complicated background setting will make a greenish background color, then apply a gradient on top of it to make it fade out a little bit towards the top.

Save your "global.css" changes and reload "dolphins.html" or any other website page into your browser. You should see the following fancier footer on every page: