INTERMEDIATE HTML/CSS

CoderDojo

SETUP

Card 1 of 9

I'm Learning: HTML/CSS

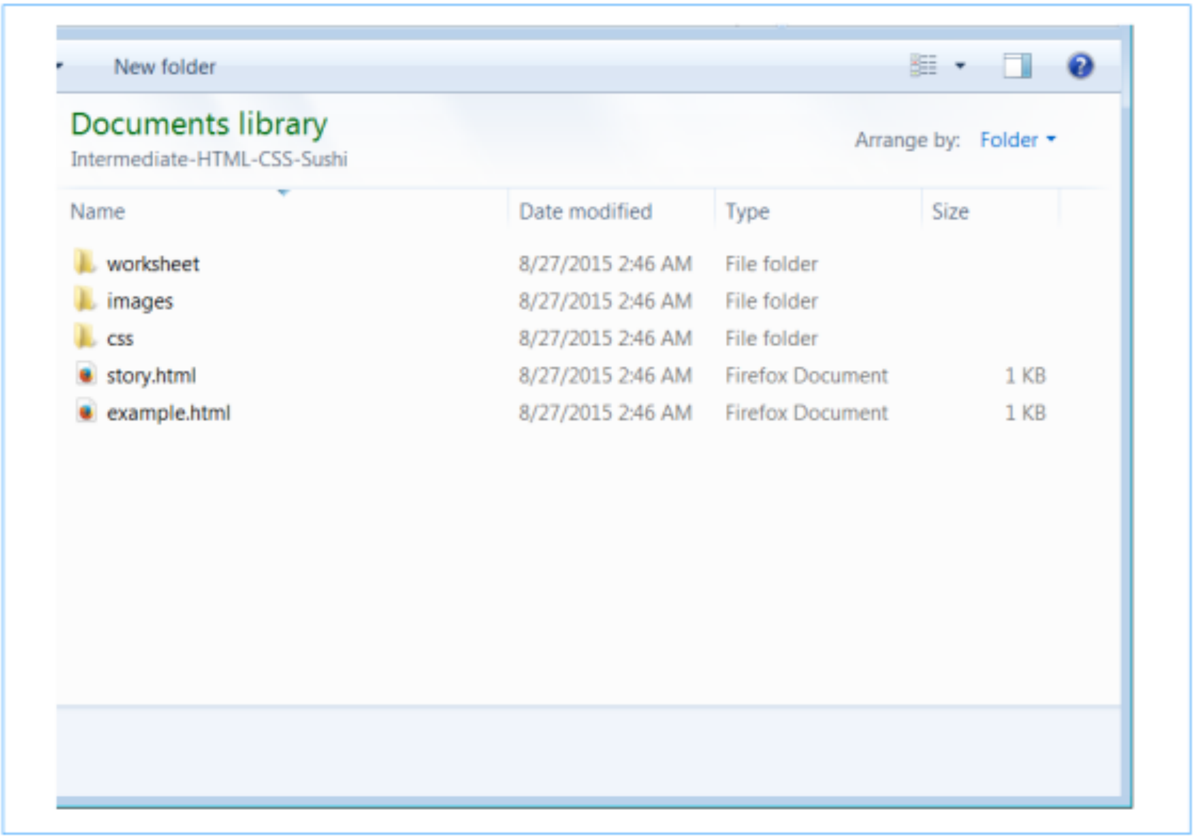
We are going to create a responsive web page! Follow the steps to do it and don't be afraid to ask a mentor if you're stuck in a step.

1 Make sure you have a text editor installed (Atom, Notepad++ or Sublime Text). If you need help, **ask** a mentor to install it for you. After installing, open your text editor.

2 **Download** the zip file from **kata.coderdojo.com/Intermediate_HTML_CSS_Sushi**.

3 **Unzip** the compressed folder and **move** it to your documents folder.

4 **Open** the **Intermediate-HTML-CSS-Sushi** folder and make sure it has the same files as the screen below.



Documents library
Intermediate-HTML-CSS-Sushi

Name	Date modified	Type	Size
worksheet	8/27/2015 2:46 AM	File folder	
images	8/27/2015 2:46 AM	File folder	
css	8/27/2015 2:46 AM	File folder	
story.html	8/27/2015 2:46 AM	Firefox Document	1 KB
example.html	8/27/2015 2:46 AM	Firefox Document	1 KB

5 Refer to this card if you have problem finding the location of the tags throughout the project.

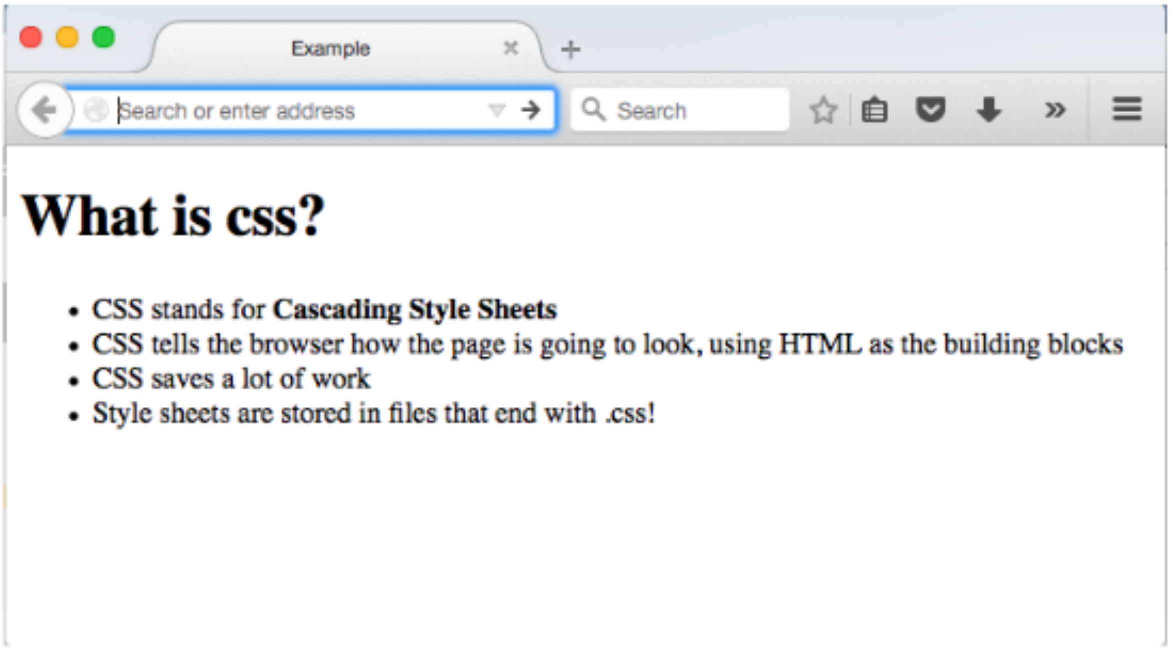
```
<!DOCTYPE html>
<html>
   <head>
      <meta charset="UTF-8">
      <title>My Story</title>

   </head>

   <body>
      <div>
         <div>
            <img src="images/luna.jpg" />
         </div>
         <p>First Panel</p>
      </div>
      <div>
         <div>
            <img src="images/tito.png" />
            <img />
         </div>
         <p>Second Panel</p>
      </div>
      <div>
         <div>
            <img />
         </div>
         <p>Third Panel</p>
      </div>
   </body>
</html>
```

CoderDojo

USING DEBUGGER TOOL

Card 2 of 9

I'm Learning: HTML/CSS



What is css?

- CSS stands for **Cascading Style Sheets**
- CSS tells the browser how the page is going to look, using HTML as the building blocks
- CSS saves a lot of work
- Style sheets are stored in files that end with .css!

1 **Open** **example.html** in your browser to learn more about CSS and why it is used.

2 Once you're done reading the CSS explanation, **open** **example.html** in your text editor and **add** the following code **inside** your **<head>** tags. **Save** your code and **refresh** your browser and **hover** your mouse in the text.

```
<link rel="stylesheet" type="text/css" href="css/example.css">
```

3 You can **test** the CSS properties using the debugger tool. To do this, **press** right click inside your web page and **choose** **Inspect Element**.

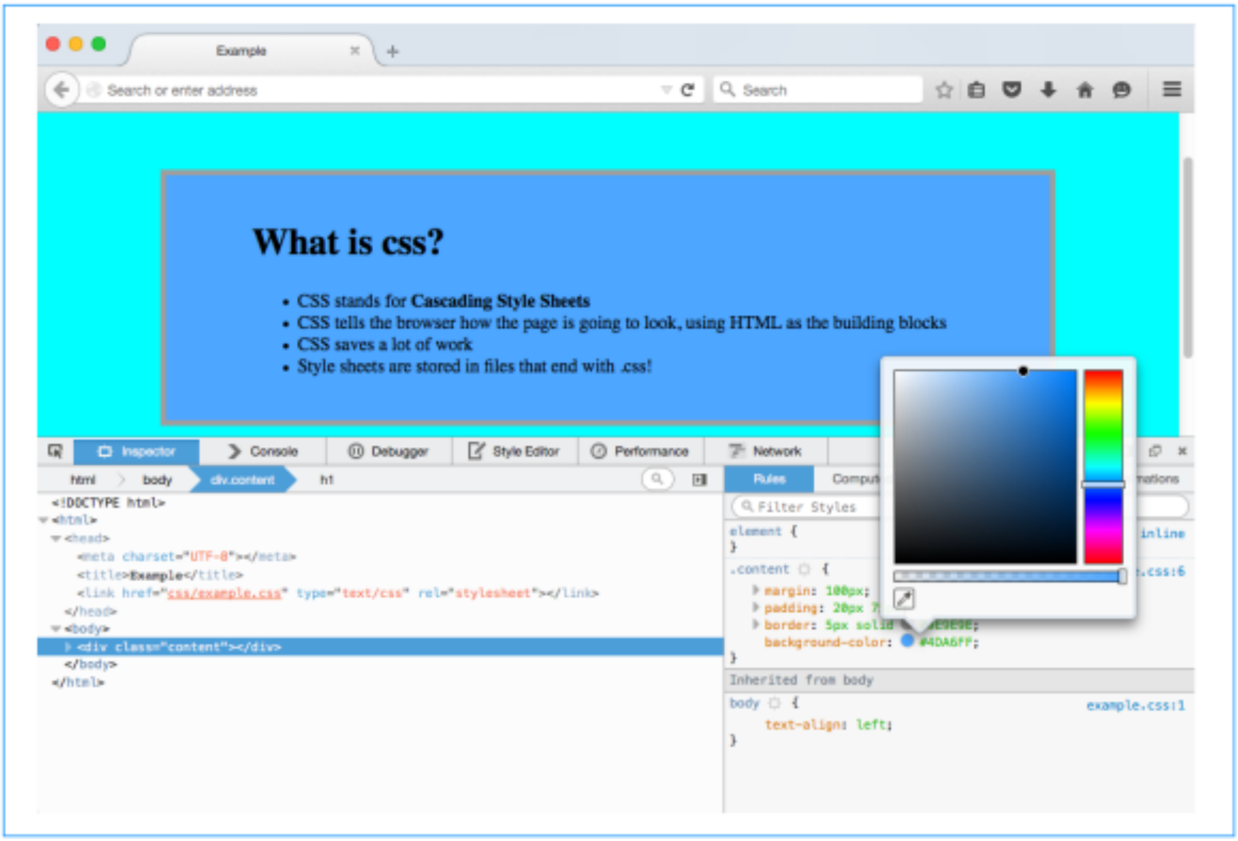
Tip: Changes made in the CSS properties using the debugger tool are only temporary and won't save to your file so you'll need to do that separately.

CoderDojo

USING DEBUGGER TOOL

Card 2 of 9

I'm Learning: HTML/CSS



What is css?

- CSS stands for **Cascading Style Sheets**
- CSS tells the browser how the page is going to look, using HTML as the building blocks
- CSS saves a lot of work
- Style sheets are stored in files that end with .css!

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8"></meta>
    <title>Example</title>
    <link href="css/example.css" type="text/css" rel="stylesheet"></link>
  </head>
  <body>
    <div class="content"></div>
  </body>
</html>
```

```
element {                                   inline
}
.content {                                  .css:6
    margin: 100px;
    padding: 20px 7
    border: 5px solid   E9E9E;
    background-color: #4DA6FF;
}
Inherited from body
body {                                      example.css:1
    text-align: left;
}
```

4 In the **left** side of the debugger tool, **expand** the html code and **click** the **<div>** tag with a class property named **content**. Once clicked, CSS properties used to style the content inside the **<div>** tag will be visible.

Tip: Debugger tools are used by developers to test their website before actually making permanent changes.

5 Let's try changing the background colour. In the **right** section of the debugger tool, **click** the coloured box so a paint tool will appear, then **choose** any colour that you want to try as your background colour.

Tip: The first release of CSS was in 1996. This release called **CSS1** was a product of the World Wide Web Consortium or the W3C.

CoderDojo

CREATING PANELS

Card 3 of 9

I'm Learning: HTML/CSS

Class selectors are used to change **multiple** HTML elements at the same time. There is a dot dot before a class name. e.g. **.panel**

Syntax

HTML:

```
<p class="text">
    Hello! How are you?
</p>
```

CSS:

```
.text {
    color: red;
}
```

1 **Open story.html** in your text editor and **inside** the **<head>** tags, **add** the code below.

```
<link rel="stylesheet" type="text/css" href="css/example.css">
```

2 Let's **add** class names to the **<div>** tags **inside** the **<body>** tags. Your **<div>** tags will now look like this:

```
<div class="panel">
    <div>
        <img src="images/luna.jpg" />
    </div>
    <p>First Panel</p>
</div>
<div class="panel">
    <div>
        <img src="images/tito.png" />
        <img />
    </div>
    <p>Second Panel</p>
</div>
<div class="panel">
    <div>
        <img />
    </div>
    <p>Third Panel</p>
</div
```

LIBERTY GLOBAL ziggo unitymedia upc vtr.com Liberty

3 **Open** **layout.css** in your text editor located in the **css** folder, **inside** the project folder. Let's **add** a border on the **<div>** tags so we can see the panels clearly in the web page.

```
.panel {
   border: 5px solid black;
   box-sizing: border-box;
}
```

4 Let's **edit** the **panel** class in step 3 and **add** a margin and padding to the **<div>** tags so there's enough space between each panel and align the texts in the panels to the center.

```
.panel {
   border: 5px solid black;
   box-sizing: border-box;
   margin: 5px;
   padding: 20px;
   text-align: center;
}
```

5 **Edit** the **panel** class again and **add** height and width properties to ensure they stay on a certain size depending on the browser's width and height.

```
.panel {
   border: 5px solid black;
   box-sizing: border-box;
   margin: 5px;
   padding: 20px;
   text-align: center;
   width: 30%;
   min-width: 400px;
   height: 30%;
   min-height: 300px;
}
```

CoderDojo

DESIGNING PANELS

Card 4 of 9

I'm Learning: HTML/CSS

ID selectors are used to change **unique** HTML elements. It uses a hash symbol (#) before an ID name. e.g. **#text**

Syntax

HTML:

```
<p id="text">
   Hello! How are you?
</p>
```

CSS:

```
#text {
   color: red;
}
```

1 In **layout.css**, **add** a float property in the **panel** class with **left** as value. **Save** your code and **refresh** your web page. Now try making your browser smaller or bigger and see how the panels react.

```
float: left;
```

2 Let's **add** ID names to the **<div>** tags **inside** the **<body>** tags. Your **<div>** tags. will now look like this:

```
<div class="panel" id="first-panel">
   <div>
      <img src="images/luna.jpg" />
   </div>
   <p>First Panel</p>
</div>
<div class="panel" id="second-panel">
   <div>
      <img src="images/tito.png" />
      <img />
   </div>
   <p>Second Panel</p>
</div>
<div class="panel" id= "third-panel">
   <div>
      <img />
   </div>
   <p>Third Panel</p>
</div
```

3 Let's try adding background colours to the first panel. **Add** a CSS rule for **first-panel** ID. It will look like the one below.

```
#first-panel {
   background-color: yellow;
}
```

4 You can also change the background colour using hex codes. Let's try doing it on the second panel. **Add** a CSS rule for **second-panel** ID. It will look like this:

```
#second-panel {
   background-color: #98FB98;
}
```

5 To change the shape of a panel, We need to use **border-radius** property. Let's change the first panel. **Edit** the **first-panel** ID so that it's like the one below.

```
#first-panel {
   background-color: yellow;
   border-radius: 100px 0px;
}
```

6 You can also use percentage (%) in the **border-radius** to change the shape of a panel. **Edit** the **second-panel** ID. It will look like this:

```
#second-panel {
   background-color: #98FB98;
   border-radius: 50%;
}
```

Fun Exercise!

Try to change the background colour of the third panel and change the shape of it too!

INTERMEDIATE HTML/CSS

CoderDojo

CHANGING IMAGE/TEXT PROPERTY

Card 5 of 9

I'm Learning: HTML/CSS

1 In **story.html**, **edit** the **<img>** tag inside the **first-panel <div>** and **add** an ID attribute named **first-panel-image**.

```
<div class="panel" id="first-panel">
   <div>
      <img src="images/luna.jpg" id="first-panel-image"/>
   </div>
   <p>First Panel</p>
</div>
```

Do the same with the **first <img>** tag in the **second-panel <div>**. **Use "second-panel-image"** as ID name.

```
<img src="images/tito.png" id="second-panel-image"/>
```

2 In **layout.css**, **create** a CSS rule for **first-panel-image** to change the shape of the image. It will look like this:

```
#first-panel-image {
   border-radius: 50%;
}
```

Do the same with the **second-panel-image**. **Add** the code so that it looks like the one below.

```
#second-panel-image {
   border-radius: 30px 0px;
}
```

Try these CSS properties to change how your image looks.

CSS property:	**Value:**
border	any pixel value. e.g 5px, 20px
border-color	red, yellow, #98FB98, etc.
border-style	solid, dotted, groove, dashed

CoderDojo

CHANGING IMAGE/TEXT PROPERTY

Card 5 of 9

I'm Learning: HTML/CSS

3 In **story.html**, **edit** the **<p>** tag in the **first-panel** **<div>** and **add** an ID name **first-panel-text**. **Change** the **first** Panel text into something that describes the image.

```
<div class="panel"  id="first-panel" >
   <div>
      <img src="images/luna.jpg" id="first-panel-image"/>
   </div>
   <p id="first-panel-text">This is Ursula's cat, luna.</p>
</div>
```

Do the same with the **<p>** tag inside the **second-panel** **<div>**. **Use** **second-panel-text** as ID name.

```
<p id="second-panel-text">This is Giustina's dog, tito.</p>
```

4 In **layout.css**, **add** the code below to change the font of **all** the text inside a **<p>** tag to **Courier New** font or **serif** if the first one isn't available.

```
p {
   font-family: "Courier New", serif;
}
```

Try these CSS properties to change how your text looks.

CSS property:	**Value:**
color	red, pink, white, #98FB98, etc.
font-size	any pixel value. e.g 5px, 20px
text-transform	uppercase, lowercase, capitalize
text-decoration	overline, line-through, underline

Fun Exercise!

Add an image in the third-panel using the **<img>** and **use** **third-panel-image** as ID name. **Edit** the text in **<p>** tag too to describe the image and use **third-panel-text** as ID name.

CoderDojo

CHANGE PROPERTY WHEN HOVERED

Card 6 of 9

I'm Learning: HTML/CSS

1 In **layout.css**, **add** another CSS rule for panel class with a hover selector to do something when the mouse is moved inside a panel.

```
.panel:hover {

}
```

2 **Add** a CSS property **inside** the CSS code in step 1 so that the border of a panel changes colour when the mouse hovers on it.

```
.panel:hover {
    border-color: #66CD00;
}
```

3 Let's try changing the **font-style** of **all** the description text when you hover on it too! Your code will look like this:

```
p:hover {
   font-style:oblique;
}
```

4 To change the **colour** of the description text in **only** the **first** panel, we need to **use** the **ID** name of the text. **Add** the CSS code below to make the colour of the description text into blue.

```
#first-panel-text:hover {
   color: blue;
}
```

CoderDojo

CHANGE PROPERTY WHEN HOVERED

Do the same with the description text in the **second** panel using its **ID** name and a hex code of a colour.

```
#second-panel-text {
   color: #FFD700;
}
```

Fun Exercise!

Change the colour of the description text inside the the **third** panel using its **ID** with a **hover** selector.

Some colours in hex code:

🟩	#00f727	🟥	#ff0000	🟪	#ff00ff
🟩	#33cc33	🟦	#333399	🟪	#ff3399
🟨	#ffff00	🟪	#ffbbff	🟪	#9b30ff
🟦	#00bfff	🟦	#00f5ff	🟪	#ffc0cb
🟫	#ff7d40	⬜	#fff5ee	🟧	#ff4500
⬜	#9e9e9e	🟩	#f0e68c	🟨	#ffd700

ANIMATE USING CSS

Card 7 of 9

I'm Learning: HTML/CSS

1 Let's try to animate the image in the **first** panel when the mouse hovers on it. To do this, **add** the animation code below in **layout.css** and name it as **rotatePicture**.

```
@keyframes rotatePicture {
   from {transform: rotate(0deg);}
   to {transform: rotate(deg);}
}
```

2 Now to **use** the **rotatePicture** animation, **Add** a CSS rule for the **first-panel-image** with a **hover** selector so that it will look like the one below.

```
#first-panel-image:hover {
   animation-name: rotatePicture;
   animation-duration: 2s;
   animation-iteration-count: 1;
}
```

3 Let's create another animation for the image in the **second** panel and name it **changeShape**. The animation will change the **border-radius** when you hover on the image. **Add** the code below in **layout.css**.

```
@keyframes changeShape {
   0% {border-radius: 20% 0%;}
   50% {border-radius: 0% 20%;}
   100% {border-radius: 20% 0%;}
}
```

Tip: To tell if a website is using HTML5, open the debugger tool and check the source code if it uses new tags and has **<!DOCTYPE html>** which is the HTML5 Doctype.

4 **Create** a new CSS rule for **second-panel-image** with a hover selector and **use** the **changeShape** animation you made. It will look like this:

```
#second-panel-image:hover {
   animation-name: changeShape;
   animation-duration: 1s;
   animation-iteration-count: infinite;
}
```

Fun Exercise!

Create an animation for the image in the **third** panel using some of the things you learned from the previous steps?

Experiement with these values for the transform property to create your own animation.

rotate(angle)	rotates and element from 0-360deg. eg. rotate(90deg), rotate(60deg)
translate(x, y)	any value in pixels. eg. translate(10px, 15px)
scale(x, y)	scales an element's width and height. e.g. scale(2, 2) , scale(1.5, 1.5)

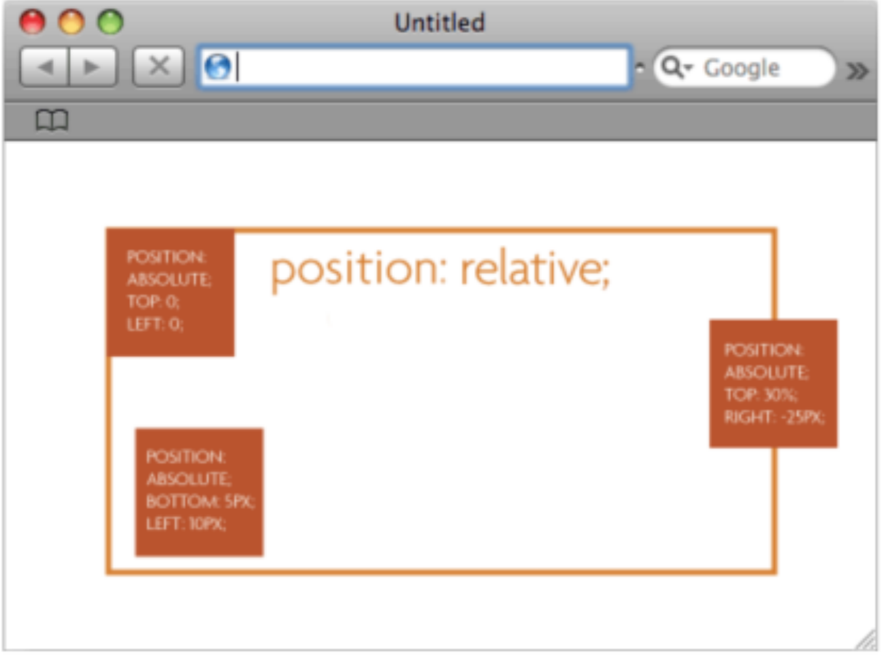
INTERMEDIATE HTML/CSS

CoderDojo

POSITIONING ELEMENTS

Card 8 of 9

I'm Learning: HTML/CSS


Untitled
Google
position: relative;
POSITION: ABSOLUTE; TOP: 0; LEFT: 0;
POSITION: ABSOLUTE; TOP: 30%; RIGHT: -25PX;
POSITION: ABSOLUTE; BOTTOM: 5PX; LEFT: 10PX;

Absolute positioning puts the box outside the normal flow of the box around it. For example, the box on the bottom in the picture above is 10px from the left of the box outside of it.

Relative positioning keeps the box in the normal flow of the document. The easiest way to understand positioning is to experiment with it!

1 In **story.html**, **add** a class name **image-panel** on the **unnamed <div>** inside **second-panel <div>**. Also, **edit** the second **<img>** tag so that it has an **ID** name **bunny-ears** and uses the bunny ears image in the image folder. Your **second-panel** code wil look like the one below.

```
<div class="panel" id="second-panel">
   <div class="image-panel">
      <img id="second-panel-image" src="images/tito.png"/>
      <img id="bunny-ears" src="images/bunny-ears.png"/>
   </div>
   <p id="second-panel-text">This is giustina's dog, tito.</p>
</div>
```

Tip: A page element with relative positioning gives you the control to **absolutely** position children elements inside of it.

2 In **layout.css**, **add** the code below to ensure that the **image-panel <div>** is always in the same position relative to the **second-panel <div>**.

```
.image-panel {
   position: relative;
}
```

3 **Add** the following code to change the size of the bunny ears image using its **ID** name.

```
#bunny-ears {
   height: 50px;
   width: 50px;
}
```

4 **Edit** the code in step 3 and **add** a **position** property with **absolute** as value. Also, **use top** and **left** property to move the bunny ears image on to tito's head. It will look like this:

```
#bunny-ears {
   height: 50px;
   width: 50px;
   position: absolute;
   top: -20px;
   left: 130px;
}
```

Fun Exercise!

Try using the debugger tool in your browser to test the positioning of elements. **Remove** the position property in the **image-panel** <div> **inside** the **second-panel** <div> and see what happens to the bunny ears with an abosulute position when its parent is using a default (static) position.

INTERMEDIATE HTML/CSS

CoderDojo

DRAWING OBJECTS WITH BORDERS

Card 9 of 9

I'm Learning: HTML/CSS

1 Let's put a sunglass on the image (luna) in the **first-panel** **<div>** using another external CSS file named **sunglass.css**. In **story.html**, **add** a link to the **sunglass.css** file in your **<head>** tag.

```
<link rel="stylesheet" type="text/css" href="css/sunglass.css">
```

2 In the **first-panel** **<div>**, **add** **image-panel** as class name on the unnamed **<div>**. Also below the **<img>** tag, **add** new **<div>** tags to be used for the sunglass drawing. Your **first-panel** **<div>** code will now look like this:

```
<div class="panel" id="first-panel">
   <div class="image-panel">
      <img src="images/luna.jpg" id="first-panel-image"/>
      <div class="glasses">
          <div class="g-top "></div>
          <div class="g-left glass"></div>
          <div class="g-right glass"></div>
      </div>
   </div>
   <p id="first-panel-text">This is Ursula's cat, luna.</p>
</div>
```

Tip: You can check how the sunglasses are made by opening the **sunglass.css** located in the **css** folder.

3 Now let's try making a mustache on the image in the **third** panel! **Inside** the **third-panel** **<div>**, **edit** the unnamed **<div>** to **use** a class property and name it to **image-panel**.

4 **Below** the **<img>** tag inside the **third-panel**, **add** the code below. This will be used to create the left and right mustache.

```
<div class="mustache">
   <div class="mustache left"></div>
   <div class="mustache right"></div>
</div>
```

CoderDojo

DRAWING OBJECTS WITH BORDERS

Card 9 of 9

I'm Learning: HTML/CSS

5 In **layout.css**, **add** the code below to serve as a guide on where the **left** and **right** mustache will reside.

```
.mustache {
   border: 1px solid yellow;
   position: absolute;
   width: 50px;
   height: 50px;
   top: 50px;
   left: 50px;
}
```

6 To draw the **left** portion of the mustache, **add** the following code below. **Save** your code and **refresh** your web page to see the left mustache.

```
.mustache .left {
   border-bottom: 5px solid black;
   top: 0px;
   left: -10px;
   border-radius: 5px 10px 10px 50px;
}
```

Tip: You can inherit properties from another class by creating it like the one above. **left** class will **inherit** properties from the **mustache** class and either overwrite the value or leave it as it is.

7 To draw the **right** portion of the mustache, **add** the following code below. **Save** your code and **refresh** your web page to see the right mustache.

```
.mustache .right {
   border-bottom: 5px solid black;
   top: 0px;
   left: 45px;
   border-radius: 0px 5px 50px 10px;
}
```

8 In the **mustache** class, **delete** the **border** property to remove the yellow guidelines. You can also change the position of the mustache by **editing** the values of the **top** and **left** properties.