

# 1360 Web Design

## Lab 7

*CSS Shapes, Transitions and Animations*

## GOAL

*Practice drawing shapes with CSS,  
and learn the basics of CSS transitions.*

*You'll also play with a CSS effect:  
<https://daneden.github.io/animate.css/>*

So the thing is, these days, people are as likely to use SVG for drawing, or sometimes the `<canvas>`, but it's still good to know how to do basic shape manipulation in CSS

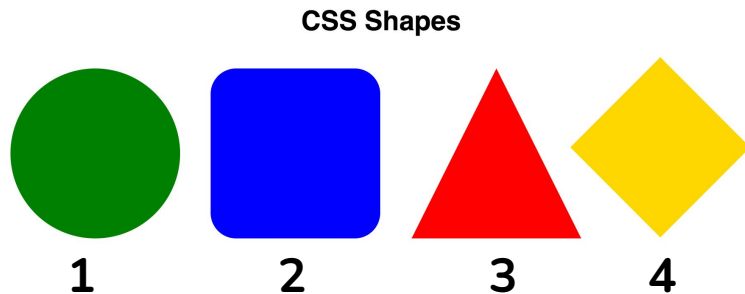
- SVGs are usually done using a program like Adobe Illustrator, which will export SVG code
- `<canvas>` is usually manipulated with JavaScript

*Both are beyond the scope of our course, but would be good next steps if you really like the drawing / animation part of the web*

# CSS Shapes

Follow these tutorials:

[Working with Shapes in Web Design](#)  
[CSS-Tricks.com's "The Shapes of CSS"](#)



## Add the CSS to create the shapes shown here:

NOTE: For a CSS shape to appear, in general, you need to set a *background color*, EXCEPT that for the triangle and diamond, where you will set a *border color*.

1. **Green circle** (200px by 200px)
2. **Blue square with rounded corners** (200px by 200px)
3. **Red triangle** (200px wide at base, which means how long are the sides?? - keep the proportions)  
Demo to see how a triangle shape is made: <https://codepen.io/chriscoyier/pen/lotjh>
4. **Gold diamond** (200px across - made of two shapes.. Notice that it actually should be ::after and not :after, but I think they were going for compatibility with Internet Explorer)

# CSS Shapes

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Next, we're going to create a circle with an image inside, using the CSS Shapes method.

## #1 CSS Shapes Method

1. Copy and paste your circle class in your CSS -- rename to "**bordered-circle**"
2. Add a background image (either through a URL or add an image to images folder)
3. The image probably won't look right.. Some of it will be cut off.. To fix this, we go back to the magic **background-size** property that allows us to do full-page background images. In addition to "cover", the property also takes "**contain**" (<-- choose this one!)
4. Add a thick border in the color of your choice around the circle.

Clip Path Method



CSS Shapes Method



IMPORTANT: MAKE SURE YOU USE A **SQUARE IMAGE** OR IT WILL LOOK STRETCHED / SQUISHED AS A CIRCLE, USE A RECTANGULAR IMAGE IF YOU WANT AN OVAL

# CSS Shapes

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[CSS-Tricks.com's "The Shapes of CSS"](#)

Clip Path Method



CSS Shapes Method



Good! Now, we're going to create a circle with an image inside, but this time using CSS Clip-Path.

## #2 CSS Clip-Path

1. Copy and paste your bordered-circle class and rename to "**clipped-circle**" -- remove the part that makes it a circle, the border-radius, leave the rest alone (it will now look like a square)
2. Use <http://bennettfeely.com/clippy/> to generate CSS needed to clip an image into a circle -- or the shape of your choice -- the code can be found in the black box, lower left on the page.
3. You can't easily add a border.. That is because clip-path is taking the square image and masking wherever we didn't "clip" out a shape.

# CSS Transitions

Follow this tutorial:

[https://www.w3schools.com/css/css3\\_transitions.asp](https://www.w3schools.com/css/css3_transitions.asp)



We're now going to make a purple square that smoothly turns into a rectangle on hover.

- Set up: create a class **rectangle** that draws a purple, 200px by 200px square.
- On **hover**, have the rectangle have a width of 400px.

This will make the purple square turn into a rectangle on hover, BUT we want it to SMOOTHLY make that transition.

Let's take look at the **transition** property.

# CSS Transitions

To create a **transition** effect, specify 2, 3 or 4 of these:

1. CSS property you want to add an effect to
2. duration of the effect
3. timing function (optional)
4. delay (optional)



**transition:** <property you want the effect on> <duration of effect> <transition timing function> <delay>

Example of shortcut: **transition: height 3s linear 1s;** = transform the height over 3 seconds using a linear effect and delay this transition by 1 second.

1. Transition the **width** over **1s**, using the **ease** timing, no delay
2. Make sure there is a transition BOTH going to 300px wide and coming back to 100px wide
3. Change the duration, timing function, etc.. to understand how these relate



# CSS Animations

We COULD do these by hand.. See this tutorial for how to do so: [CSS Animations](#)

But today in lab, let's try **Animate.css**:

- **Install using the CDN:** <https://animate.style/>  
(or it's ok to download the file and add to your project folder - visit their Github link if you want that option)

1. Find the link to the CDN (or download the CSS file and add it to your CSS folder)
2. Add this link to *animate.css* to the <head> of your HTML
3. Choose one of the shapes we made and add the class "animate\_\_animated"
4. Now select one of the animations and ALSO ADD that class  
(It takes both the basic 'animate\_\_animated' class and a specific animation class to work)

Example: `<div class="square animate__animated animate__bounce"></div>`

# CSS Animations

These basic animations will run ONLY ONCE each time the page is reloaded.

You can also adjust the duration, delay and how many times it will run in your CSS by overwriting animate.css's custom CSS variables.

- **Change the animation you chose in some way**
- For example, if you chose “bounce”, now have it bounce over 2 seconds..  
The default is 1 second. (Add this where the comments indicate in the CSS)

**Example:**

```
.animate__animated.animate__bounce {  
    --animate-duration: 2s;  
}
```

# CSS Animations

Perhaps it is more useful to have an animation happen in connection with a user's interaction — like clicking a button, or in this case, clicking on each shape!

→ **OPTIONAL** - use JS to animate each shape when clicked

1. Remove the animation classes you previously added to your HTML
2. Uncomment the `<script>` before the `</body>`
3. Feel free to replace the bounce animation with a different effect

LOVE ❤️ making your interfaces interactive?

Come take the JavaScript course with me. Requires I360 and I210.

# Resources

Documentation: [https://www.w3schools.com/css/css3\\_animations.asp](https://www.w3schools.com/css/css3_animations.asp)

Documentation:

[https://developer.mozilla.org/en-US/docs/Web/CSS/CSS\\_Animations/Using\\_CSS\\_animations](https://developer.mozilla.org/en-US/docs/Web/CSS/CSS_Animations/Using_CSS_animations)

CSS Resource: <https://css-tricks.com/examples/ShapesOfCSS/>

Tutorial: <https://css-tricks.com/working-with-shapes-in-web-design/>

**NEAT EFFECT - Want to wrap text around a shape?? Try this:**

[https://developer.mozilla.org/en-US/docs/Web/CSS/CSS\\_Shapes](https://developer.mozilla.org/en-US/docs/Web/CSS/CSS_Shapes)

*Please attend a help session if you need extra assistance.*