CSS Transitions

Setup

1. Download **transitions.html** and **transitions.css** from Moodle and save them in a new folder in your websites folder.
2. Open both files in your editor and review the code.
3. The HTML has 2 sections, the first contains a link while the second contains a button and a div.
4. There is also a **\<script\>** tag which has a simple event listener attached to the button.
5. In the CSS, the top of the file just sets up the page layout, while the lower part of the file has the CSS we are interested in.
6. View the HTML page in your browser. The 2 things we are interested in are:

- The background colour of the link changes when you hover on it.
- When you click on the button, the background colour and font size of the element below it change.

Transitioning the hover state

Consider the *:hover* pseudo class:

- We define a background colour for our links
- We define a different background colour for its **hover** state
- When the user hovers over the link, the background colour changes
- This change occurs instantly

Wouldn't it be nicer if the change occurred gradually, over a specified period of time?

The CSS **transition** property allows us to customise how changes like this appear, visually. In **transitions.css**, locate the declaration block with **a** as its selector. Add a **transition** property to the declaration block:

```
a {
    /* Other properties here… */
    transition: background-color  0.5s ease-in-out; }
```

Save your files and preview the page in your browser. As you hover over the link, you should see a gradual change of the background colour.

We are providing 3 values, separated by spaces, for the transition property:

- **background-color,** the CSS property we want to apply the transition to
- **0.5s,** The amount of time the transition should take (in seconds)
- **ease-in-out,** the type of transition to use (aka the timing function)

Try changing **0.5s** to different values to see the effect (e.g.: 0.2s, 1s, 5s). When done, change it back to 0.5s. You may have noticed that the text colour of the link also changes on hover, however, that change is still happening instantaneously. This is because we have not specified it in the transition!

Update the CSS you just added so that it looks like this:

```
a {
    /* Other properties here… */
    transition: background-color 0.5s ease-in-out, color 0.5s ease-in-out; }
```

Save your files and preview the page in your browser. As you hover over the link, the text colour changes gradually.

You can add as many properties as you like to the list, each with a different timing/timing function, if desired. However not all properties can be transitioned.

Note how we added the **transition** property to the a CSS rule, and not to the **a:hover** rule. To understand why we did this, try moving it to the **a:hover** rule.

When you preview your change, you should see that the transition still occurs when you place your mouse over the link, but when you move your mouse away from the link, the change is instantaneous. The transition is only being applied in one direction.

This is because the rules in **a:hover {},** only apply **while** the element is being hovered. However, the rules in **a {}** apply to the link when it is being hovered _and_ when it is not being hovered.

Save your files and preview the page in your browser. When you click the button, the background colour and font size should change gradually.