

CS 328 - Week 7 Lab Exercise - 2025-03-06/07

Deadline

for the Thursday lab: due by the end of lab

for the Friday lab: due by 11:59 pm on 2025-03-07

Purpose

To write a CSS external stylesheet that contains CSS rules using a number of different kinds of selectors to style an HTML document.

How to submit

Submit your files for this lab using `~st10/328submit` on nrs-projects, each time entering a lab number of **87**.

Requirements

- For this particular lab, (because of the CS Faculty Candidate teaching presentation during Friday's lab), you may work either in pairs or individually.
- If you work in pairs, you are expected to pair program:
 - This means **two** people working at **ONE** computer, one typing ("driving"), one saying what to type ("navigating"),
while **BOTH** are looking at the **shared** computer screen and **discussing** issues along the way.
- If you pair program, make sure **BOTH** of your names appear in each file submitted.
- When you are done, before you leave lab, **BOTH** of you should submit appropriate versions of these files using `~st10/328submit` on nrs-projects, with a lab number of **87**.

Note: available list of CSS properties

There is now posted a page of CS 328 CSS References, and as part of this page, you can find a link to an alphabetical hyperlinked index of CSS properties that is part of the MDN CSS Web Docs:

<https://developer.mozilla.org/en-US/docs/Web/CSS/Reference>

Lab set-up

- Copy over the following "starter" HTML file into your desired `public_html` subdirectory, that you will then add to as part of today's lab exercise:

```
cp ~st10/lab7-start.html lab7.html
```
- Fill in the opening comment block as specified, putting in your **names**, the last modified **date**, and the **URL** that can be used to run your document.
 - (You *will* lose some credit if this URL does not work when I or the grader paste it into a browser!)
- **Within** the **head** element, after the `link` element specifying that this document is being styled by

`normalize.css`, add a second **link** element following course style standards specifying that this document will then be further styled using a file **lab7.css** that you are about to create for this lab exercise.

- Do not include any inline or internal CSS rules in your **lab7.html**.
- Within the **footer** element near the end of the **body** element, in the **p** element whose content includes **YOUR NAMES**, replace **YOUR NAMES** with your names.
- Read over this and notice what HTML elements are included in its **body** element.

Create a CSS external style sheet **lab7.css**

Create an external CSS file **lab7.css** in the same directory as your **lab7.html** to style your **lab7.html**:

- Start this with an opening comment block containing your **names** and the last modified **date**.
- Now write CSS style rules -- each of which has a **visible, noticeable** effect in your displayed **lab7.html** -- meeting the following requirements as well as the posted "CS 328 CSS Coding Standards so far".
 - You can **mix and match** and **combine** properties in your rules such that the following requirements are all met in your resulting **lab7.css**.
 - (While all of the following are covered in zyBooks Chapter 3, all but a couple of the properties are also mentioned in the Week 7 Lecture 1 projected notes.)
 - Include at least one rule with multiple **declarations** (more than one **property-value** pair).
 - Include at least one rule whose selector part is a comma-separated list of selectors (**grouping** selectors).
 - Include at least one rule with an **element selector**.
 - Include at least one rule with a **class selector**.
 - Include at least one rule with an **id selector**.
 - Use the **color** property to visibly style **at least two** different kinds of elements (using **at least two** different colors).
 - Use the **background-color** property to visibly style **at least two** different kinds of elements (using **at least two** different colors).
 - Amongst your rules, represent colors in **at least three** of the five ways discussed in class:
 - **predefined** color name - for example, `red`
 - **hexadecimal** color code - for example, `#ffa500`
 - **red-green-blue** color code - for example, `rgb(255, 165, 0)`
 - **hue-saturation-luminance** code - for example, `hsl(128, 128, 64)`
 - **semi-transparent red-green-blue-alpha** color code - for example, `rgba(255, 165, 0, 0.5)`
 - Use at least **two** different properties that are **not** color-related to visibly style **at least two** different kinds of elements. Some examples of such properties:

- **text-align** (for inline elements, with values such as **left**, **right**, **center**)
- **text-decoration** (with a value such as **underline**)
- **font-weight** (with a value such as **bold**)
- **font-style** (with a value such as **italic**)
- (Since we did not discuss them on Monday, properties whose values are **numeric sizes** are *not* a requirement. BUT if you *choose* to include such a property, **NOTE** the following:
 - When a property value has a unit, there can be NO blank between the value and that unit. (That is, **3em** would work, but 3 em would not!)
 - CS 328 class style is to use so-called *relative* units for sizes instead of *absolute* units. We'll be discussing this further, but note that this means **em** (the width of a capital M in the current font) and % are fine, but pt and px are **not**.)
- (We will also be discussing the **CSS Box Model**, including what is meant by padding, border, and margin.
 - But in the meantime, if you would like some space between your content and the left-hand-side of the window, a rule setting the **body** element's property **margin-left** or **margin** to a small value -- for example, **1em** -- will do this.)

Validate your files:

Make sure an **.xhtml** copy of your **lab7.html** validates as **strict-style HTML**, and that your **lab7.css** validates as **valid CSS** at <https://jigsaw.w3.org/css-validator/>.

BEFORE you leave lab:

Make sure that you **both** have copies of the files:

- **lab7.html**, **lab7.xhtml**, and **lab7.css**

...and you BOTH submit these using **~st10/328submit** on nrs-projects, with a lab number of **87**.

How the navigator can get **lab7.html** and **lab7.css**:

(for a driver with username *dr12*, and a navigator with username *na89* - replace these with your *actual* usernames when you actually do this)

- Because these are files the nrs-projects web server has to be able to reach, the navigator should be able to get a copy of them from the driver using an approach like this:
 - Assume the driver has, in their **public_html** directory, a sub-directory **328lab07** containing **lab7.html** and **lab7.css**. (Adapt the following accordingly based on your driver's actual **lab7.html** and **lab7.css** location.)
 - The NAVIGATOR *na89* can now:
 - log in to THEIR (*na89*'s) nrs-projects account, and run these commands:

```
cd public_html
mkdir 328lab07 # or other name they choose
```

```
chmod 711 328lab07
```

```
cd 328lab07
```

```
cp ~drl2/public_html/328lab07/lab7.html . # note space & period!
```

```
cp ~drl2/public_html/328lab07/lab7.css . # note space & period!
```

– Now the navigator *na89* should have their own copies of **lab7.html** and **lab7.css**.

- Either repeat for **lab7.xhtml**,

or (if desired) change the URL within the navigator's **lab7.html** to refer to the navigator's copy, and then make the **.xhtml** copy (and double-check that it still validates):

```
cp lab7.html lab7.xhtml
```