CS 328 - Week 3 Lab Exercise - 2026-02-05

Deadline

Due by the end of lab.

Purpose

To practice creating and validating a strict-style HTML document that includes practice with a `table` and a `form` element, including a small starting selection of form widgets.

How to submit

Submit your files for this lab using `~st10/328submit` on nrs-projects, each time entering a lab number of **83**.

Requirements

- You are required to work in **pairs** for this lab exercise, in the BSS 317 lab.

  - 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** concepts/issues along the way.

- 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 **83**.

- For this lab exercise's problems, the **only** CSS permitted is **EITHER**:

  - **Just** the external CSS `normalize.css` included in `html-template.html`, **OR**

  - The external CSS `normalize.css` included in `html-template.html`, **AFTER** which you **ALSO** put:

    ```
    <link href="https://nrs-projects.humboldt.edu/~st10/styles/lab3-table.css"
          type="text/css" rel="stylesheet" />
    ```

    (and this would be right **BEFORE** the `head` element's closing tag)

    ...which adds a *little* mostly-table-related formatting.

Lab Exercise set-up

As a pair:

- Copy the contents of the posted `html-template.html` into an `.html` file whose name *includes* `lab3` *somewhere* within it, somewhere in the navigator's `public_html` directory.

  - (That is, it might be in their `public_html` directory, or it might be in a world-executable subdirectory of their `public_html` directory.)

  - You could copy and paste the contents from one of the "syntax-colored" display versions of

`html-template.html` posted on the course public site's home page or linked along with this handout on the course Canvas site.

- You could also use a command such as this on nrs-projects, **assuming** you are in your desired work directory for today's lab (and varying the name as desired, as long as it includes **lab3** within it):

  `cp ~st10/html-template.html lab3.html`

As you work through the following, ensure that this file contains **strict-style HTML that meets class coding and style standards** as well as meets the **requirements** below.

Problem 0

To your ***lab3*.html** file for today's lab exercise, add the following:

- In the **comment** after the **html** element's start tag and right before the **head** element's start tag:

  - After **by:**, put **your names** (first *and* last names)

  - After **last modified:**, put **today's date**

  - On the line after **you can run this using the URL:**, put the **(absolute) URL** that can be used to view this ***lab3*.html** from a browser on the web

    - Check that this URL works! (successfully displays your document when pasted in a browser)

    - (You *will* lose credit if this URL does not work when pasted into a browser during grading!)

- Within the **head** element, edit the **title** element to have descriptive content appropriate for this document.

- Within the **body** element, include an appropriate **h1** element indicating this document is for the **CS 328 Week 3 Lab Exercise**

- Within the **footer** element, add a **p** element whose content includes **your last names**.

Problem 1

To your ***lab3*.html** file for today's lab exercise, within its **body** element and before its **footer** element, add the following **after** the **h1** element you added in Problem 0:

- Add an appropriate **h2** element indicating the parts following are for **Problem 1**

- Within one or more **p** elements, include:

  - an **img** element for a *small* image of your choice

    - If your image's URL does not validate as strict-style HTML when used as your **img** element's **src** attribute,

      make a copy of the image in your nrs-projects account (if you can legally do so) or use a service such as such as tinyurl to avoid problematic characters, and use that URL instead.

  - a visible **special character** of your choice (something starting with **&** and ending with **;**, such as **&** for an ampersand character or **<** for a less-than character or **ß** for a Greek beta)

- (You may also include other strict-style HTML elements in this part of your document if you wish.)

- End this problem's part with an **hr** element.

validate your document-so-far

Before you go on...

- REMEMBER that it does not check for all of the CS 328 required style standards -- but you can use an `.xhtml` copy of your document with https://validator.w3.org/nu or https://html5.validator.nu to assist you in validating and checking over your document.

- SAVE a copy of your document-so-far with your Problem 1 elements as follows -- at the nrs-projects prompt, type the Linux command:

  `cp` *your-***lab3***-file-name*`.html` *your-***lab3***-file-name*`.xhtml`

- Go to either https://validator.w3.org/nu or https://html5.validator.nu

  and paste in the absolute URL of the *your-***lab3***-file-name*`.xhtml` version of your file

  and click the **"Validate"** button.

  – Correct any issues that are shown before going on to Problem 2.

Problem 2 - add a `table` element

Decide on some tabular data you'd like to include in your document, consisting of **at least 3 rows** and **at least 3 columns**.

- (It can be as simple as showing data for three of the departments from `set-up-ex-tbls.sql`'s `dept` table, or it can be data about a topic you choose.)

To your HTML document for today's lab exercise, add the following **after** the `hr` element you added at the end of Problem 1's parts above:

- Add an appropriate `h2` element indicating the parts following are for **Problem 2**.

- Add a `table` element structuring and displaying your tabular data that also meets the following requirements:

  – It should include an appropriate `caption` element.

  – It should include appropriate `tr` elements that contain appropriate `td` and/or `th` elements.

  – It should include at least one `th` element, and each `th` element should include an appropriate `scope` attribute.

- End this problem's part with an `hr` element.

validate your document-so-far

Before you go on...

- Again SAVE a copy of your document-so-far, now also including your Problem 2 elements:

  `cp` *your-***lab3***-file-name*`.html` *your-***lab3***-file-name*`.xhtml`

- Go to either https://validator.w3.org/nu or https://html5.validator.nu

  and paste in the absolute URL of the *your-***lab3***-file-name*`.xhtml` version of your file

  and click the **"Validate"** button.

  – Correct any issues that are shown before going on to Problem 3.

Problem 3 - add a `form` element

To your HTML document for today's lab exercise, add the following **after** the `hr` element you added at the end of Problem 2's parts above:

- Add an appropriate `h2` element indicating the parts following are for **Problem 3**.

- Add a `form` element that meets the following requirements:

  - It should have an `action` attribute whose value is a "real" URL of your choice (because we haven't gotten to writing an actual application program to handle this form yet).

  - It should have a `method` attribute whose value is `"get"`.

  - It should include a `fieldset` element that contains:

    - an appropriate `legend` element

    - **at least two `input`** elements with `type="text"` with appropriate `name` and `id` attributes, and appropriate logically-related `label` elements for each of those `input` elements.

  - This `form` element should also include an `input` element with `type="submit"` -- you can decide if you would like this submit button within your `fieldset` element, or following it.

- Remember that, for this lab exercise, you may **not** use CSS to format or layout this form, although you **can** tastefully use `br` void elements, `p` elements, or `div` elements if you wish.

- Try entering some info into your form, click submit, and **look over** the name=value pairs that appear at the end of your form's action URL as a result.

  - **Think about**: can you explain why those are the name=value pairs submitted?

validate your resulting document

Before you go on...

- Again SAVE a copy of your document-so-far, now also including your Problem 3 elements:

  `cp` *your-*`lab3`*-file-name*`.html` *your-*`lab3`*-file-name*`.xhtml`

- Go to either https://validator.w3.org/nu or https://html5.validator.nu

  and paste in the absolute URL of the *your-*`lab3`*-file-name*`.xhtml` version of your file

  and click the "**Validate**" button.

  - Correct any issues that are shown before submitting your `*lab3*.html` and `*lab3*.xhtml` files.

BEFORE you leave lab:

Make sure that you *each* have copies of the files `*lab3*.html` and `*lab3*.xhtml` on your nrs-projects accounts.

And, **EACH** of you should submit your versions of `*lab3*.html` and `*lab3*.xhtml` using

`~st10/328submit` with a homework number of **83**.

- I will leave it up to the navigator to decide if they would like to UPDATE their *your-*`lab3`*-file-name*`.html` and your-`lab3`*-file-name*`.xhtml` so its opening comment includes the URL to *their* copy, or if they want to leave the URL for the driver's copy.

- – HOWEVER: NOTE that you *will* lose some credit if the URL in your *your-**lab3**-file-name*.**html** file does not work when I or the grader paste your submitted file's URL into a browser, in either case.

- – (So, if the driver were to MOVE or delete their copy of *your-**lab3**-file-name*.**html** before this lab exercise is graded, the navigator would also lose some credit if they included the driver's URL here.)

Reminder: how the navigator can get copies of these files

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

- Because this is a file the nrs-projects web server has to be able to reach, the navigator should be able to get a copy of this file from the driver using an approach like this:

  - – Assume the driver has, in their `public_html` directory, a sub-directory `328lab03` containing *your-**lab3**-file-name*.**html**. (Adapt the following accordingly based on your driver's actual *your-**lab3**-file-name*.**html** location.)

  - – The NAVIGATOR `na89` can now:

    - – log in to THEIR (`na89`'s) nrs-projects account, and run these commands:

      ```
      cd public_html

      mkdir 328lab03    # or other name they choose

      chmod 711 328lab03

      cd 328lab03

      cp ~dr12/public_html/328lab03/your-lab3-file-name.html .   # note space & period!
      ```

  - – Now the navigator `na89` should have their own copy of *your-**lab3**-file-name*.**html**

- Either repeat for *your-**lab3**-file-name*.**xhtml**,

  or (if desired) change the URL within the navigator's *your-**lab3**-file-name*.**html** to refer to the navigator's copy, and then make the **.xhtml** copy (and double-check that it still validates):

  ```
  cp your-lab3-file-name.html your-lab3-file-name.xhtml
  ```