

Lab 3: Web Programming - CSci130

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Please keep the different documents that you are creating during the lab sessions as they can be used to assess your participation to the course.

Goals: To create documents with **HTML5** and **CSS3** using the selectors.

Do not hesitate to discuss solutions with other students in the classroom.

Exercise 1. More CSS with events and links:

In this exercise, you have to reuse Exercise 1 from the previous lab, where the goal was to create different tables (to be submitted on Canvas) .

- When you move the mouse over the rows, the color will change to green. When your mouse is on a particular cell (td) the color will change to red and will be different, in addition you will enlarge the size of the td.
- The first letter of each day will be in uppercase while the rest will be in lowercase.
- Discuss with students around you how it would work for highlighting all the cells of a column, what is the problem.

Exercise 2. More CSS for the menu (use the code from the previous lab and complete it) (to be submitted on Canvas)

By considering the exercise that had 5 pages, with 5 sections having images that you have used and enriched with CSS. Update the pages so the sections are presented with:

- The links are in a horizontal menu on the top. (use examples shown in class and given on Canvas)
- Section 1 in the middle of the page; Section 2 and 3 are below section 1; Section 4 and 5 are below section 2. (there are multiple possibilities for the implementation)

Section 1	
Section 2	Section 3
Section 4	Section5

Exercise 3: A form (to be submitted on Canvas)

Create an HTML5 page describing a form that allows people to enter the following information:

- First Name (textbox)
- Last Name (textbox)
- City (textbox)
- State (use a combo box with a list of 5 states)
- Zip code (textbox) (xxxxx) (use a regular expression)
- Date of Birth (textbox) (mm/dd/yyyy) (use a regular expression)
- Phone number (textbox) (x-xxx-xxx-xxxx)
- Credit Card Information
 - Number (textbox) (xxxx-xxxx-xxxx-xxxx) (use a regular expression, this field is required, change the number of elements to match the length of string)
 - Month-Year (textbox) (valid until): Year (mm/yy) (use a regular expression)
 - Security number (textbox) (xxx) (use a regular expression)

Following the example given in class with the phone number, **add the CSS for each field to indicate if each field has been properly filled or not.**

Exercise 4: Animation with CSS3.

By using different elements at different speeds, you have to create the illusion of motion and a 3D effect by moving several objects at different speeds.

You can reuse existing elements given in Canvas but you need to modify and improve it.

In a webpage, you must create an animation the following scene:

- The sky (blue background)
- Different clouds that move at different speeds (boxes with round edges)
- Image of a landscape under the sky and the clouds (a green box).
- A gray mountain represented as a triangle:
 - Start with a box (div) with borders
 - Set the size of the borders to 50.
 - Set the height and width to 0.
 - Update the parameters to have only a triangle.
- One or more trees (combination of boxes with different colors and round edges), you can make trees of different sizes and different shapes.
- When you move your mouse on a cloud, the cloud will expand and you will have a link becoming visible.

Remark: feel free to modify the scene with additional elements, or to change the theme so it is more relevant to some movies, video games, or anime that you like.

