Lab Assignment #7

Fall Semester 2019

April 24th

Repository available at: https://classroom.github.com/a/CnPKHb9b

1 Introduction

This seventh lab assignment will be graded and you will be working on your own. However, as always, you can ask the TAs or the professor for help.

2 Prerequisites

Before you set off to work on this assignment, we recommend you to pick up from the last lecture and study the basics about HTML and CSS. You should study the tutorials prepared by Shay Howe. In particular, we recommend that you take a look at the following sections of the basic and advanced tutorials available in that website:

Basic HTML & CSS:

- Building Your First Web Page
- Getting to Know HTML
- Getting to Know CSS
- Opening the Box Model
- Positioning Content

Advanced HTML & CSS:

- Detailed Positioning
- Complex Selectors
- Responsive Web Design

Skim through these tutorials in the first module of this lab, and come back to them on a need-to-know basis for further details while you work on the current assignment (and on the course project). In addition, check out this tutorial about CSS flexbox. You may also want to check out W3Schools continuously, as it provides comprehensive documentation about client-side technologies.

07 - 20190424/imgs/keyboard.png 07 - 20190424/imgs/keyboard.bb

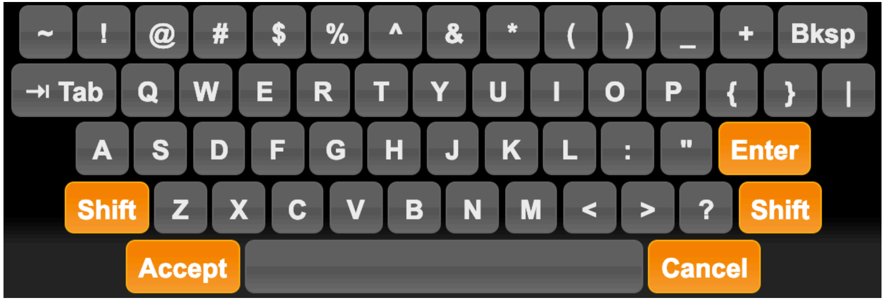

Figure 1: Your keyboard layout must match/resemble this keyboard.

3 Task Description

In this lab assignment you will create an on-screen QWERTY keyboard, that is, a keyboard displayed on a web page, like the one depicted in Figure 1. Keep in mind that the keyboard will not be functional at this stage. Expect to make it work in the next lab assignment, in which we will cover Javascript in the web browser. Basic requirements and restrictions for the keyboard implementation are as follows:

1. You may only use HTML and CSS. No image files are allowed.
2. You may use whatever CSS-based layout model you want (i.e., CSS flexbox, CSS grid layout, etc.). The only restriction is that the keyboard layout must not break if the viewport size becomes too small. The keyboard should grow to take up all the horizontal space available in the viewport.
3. You may choose whatever color scheme you want. Control keys (i.e., enter, shift, accept, cancel) and character keys must look different. Make it look cool. Bonus point: make the keys change their appearance (color) when they are clicked.
4. Character keys must be square shaped (height and width are the same), except for tab and backspace. Control keys can be rectangular. Rounded corners are desirable (i.e., figure out how to achieve them with CSS), but not compulsory.
5. You may not use HTML tables to accommodate keys (i.e., this will be severely penalized!). Only `div` and `span` elements are allowed.
6. Your keyboard must be implemented within the `div` element with "`kcontainer`" id in the `keyboard.html` file provided.
7. You should avoid defining inline CSS styles, or style attributes in markup elements. Instead define your styles in the `keyboard.css` file provided.

4 Evaluation Criteria

For each of the requirements listed above, scores are awarded as follows:

'Dos' (scores are awarded):

1. The keyboard layout is complete and table-less (1 pt.).
2. The keyboard layout does not break if the viewport becomes too small (1 pt.).
3. The keyboard grows to take up all the horizontal space in the viewport (1 pt.).
4. The color scheme is defined by means of appropriate CSS classes (1 pt.).
5. Bonus point: make the keys change their appearance (color) when they are clicked (1 pt.).
6. The shape of character keys is square except for tab and backspace (1 pt.). Control keys are rectangular (1 pt.).

'Don'ts' (score is penalized):

1. You are expected to write valid HTML and CSS code. To ensure this, you should check your code against the W3 HTML Validation Service, and the CSS Validation Service. If your code contains severe syntax errors, your grade will be penalized by up to two points. **Check the validity of your code before handing in your assignment**.
2. Use of files or code other than HTML and CSS is penalized by lowering the maximum attainable grade to 4.0.
3. Use of HTML tables to accommodate keys is penalized by lowering the maximum attainable grade to 4.0.
4. Use of inline CSS or styles in elements is penalized with 1.0 point.

5 Repository

Clone the base repository upon accepting the Github Classroom invitation at the URL included at the top of this document. Remember to clean the git credentials set on your machine if these do not belong to you, using the following commands:

```
$ git config --global user.name "name"
$ git config --gobal user.email "email"
```

6 Useful links

The following links will provide you useful information for completing your assignment:

- Shay Howe's HTML+CSS tutorial
- W3Schools

7 Code of Academy Ethics

During the course and for every task, test and homework given to you, all the ethical criteria established by the Faculty of Engineering and Applied Sciences at the Universidad de los Andes, Chile will apply:

> "Any detection of copying, plagiarism, or dishonest behavior, independent from the fact itself, will be reviewed by the Faculty Council. The minimum sanction will be a 1.0 as the final grade of the course, with the possibility of escalating to the expelling of the student from the University.
>
> Any student suspicious of unethical behavior will be punished as if he/she had committed or executed the suspected dishonest behavior. In other words, it is exclusively the responsibility of the students to behave correctly and ethically."