CSE186 Summer 2024

Assignment 1

In this assignment you will write/modify a simple HTML page and Style Sheets to display the elements of the page in distinct ways.

This assignment is worth 5% of your final grade.

Installation

Download and install node.js LTS for your operating system: https://nodejs.org/en/download/.

Do NOT install the "Current" version.

Note that node.js includes the Node Package Manager `npm`.

Once installed, open a terminal / console session and run the following command:

```
$ node --version
```

Which should return this version number:

```
v20.15.0
```

Now run the following command:

```
$ npm --version
```

Which should return one of this version number:

```
10.7.0
```

If you run into problems getting `node` and `npm` installed, come along to an office hours session as soon as possible so we can help you get up and running.

Setup

Download the starter code archive from Canvas and expand into an empty folder. I recommend, if you have not already done so, creating a folder for the class and individual folders beneath that for each assignment.

The starter code archive contains the following files you will modify:

```
src/index.html
src/basic.css
src/advanced.css
```

Do not modify any other starter files.

To install required node packages (could take a while:

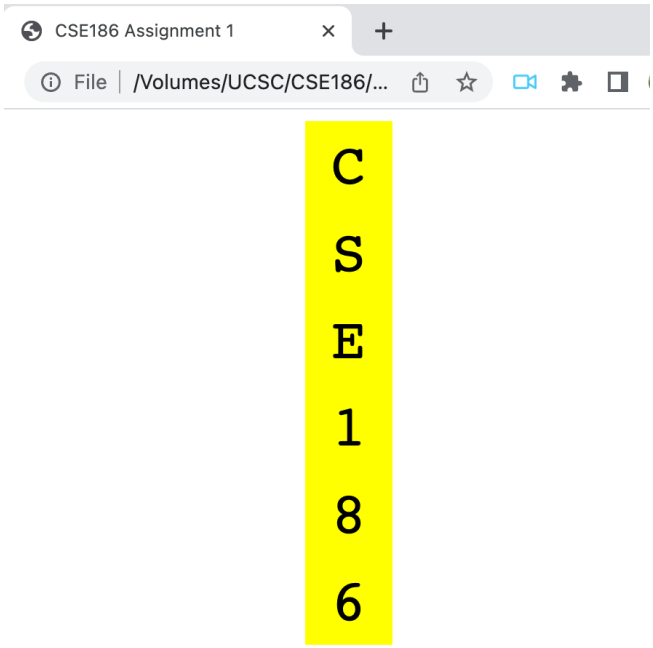
```
$ npm install
```


Requirements

Note that both requirements must be met by modifications to the supplied stylesheets and index.html file; do ***NOT*** create a new HTML file for each requirement or add new stylesheets.

Basic:

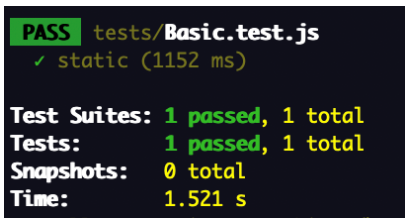
- Modify `index.html` and `basic.css` to display "CSE186" vertically in a 40px `Courier` font degrading to `monospace` with a yellow background and black text in top center of the browser as shown:



To achieve the correct spacing you may want to have each character horizontally and vertically centered in its own 60x60px `<div>` but you can use as many other `<span>`s and `<div>`s as you need or implement something completely different, it's entirely up to you.

Regardless of how you implement your solution, your code must pass the provided tests:

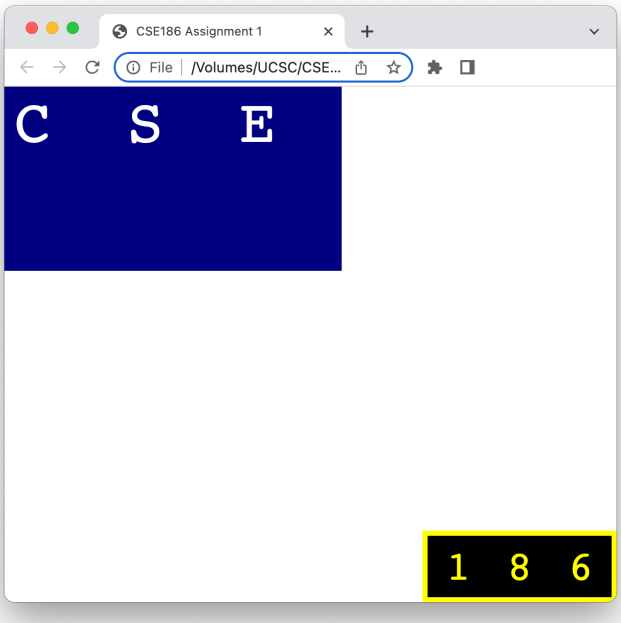
```
$ npm test Basic
```



Note: When there is a conflict between a written specification and a programmatic test, the test is always right. i.e. always *"code to the test"*.

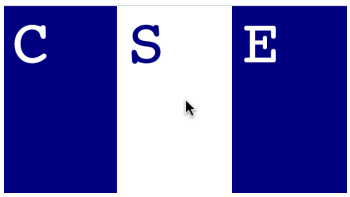
Advanced:

- Modify `index.html` so it continues to meet the Basic requirement when linked to `basic.css` but when linked to a modified `advanced.css` shows “CSE” in the top left corner of the browser and “186” in the bottom right as shown:



The `<div>`s the letters are in should now be 100x180px with a navy-blue background and white text. The numbers’ `<div>`s should remain 60x60px but should have a black background, yellow text and a 10px yellow border. The letters should now be 60px whilst the numbers remain 40px.

When the mouse hovers over the letters, they should go into “reverse video” with the text turning navy-blue and the background turning white as shown:



A similar effect should occur when the mouse pointer hovers over the numbers, as shown:

Regardless of how you implement your solution, your code must pass the provided tests:

```
$ npm test Advanced
```

```
PASS tests/Advanced.test.js (5.799 s)
  ✓ static (1067 ms)
  ✓ letter C hover (766 ms)
  ✓ letter S hover (732 ms)
  ✓ letter E hover (705 ms)
  ✓ number 1 hover (712 ms)
  ✓ number 8 hover (758 ms)
  ✓ number 6 hover (737 ms)

Test Suites: 1 passed, 1 total
Tests:       7 passed, 7 total
Snapshots:   0 total
Time:        5.821 s, estimated 6 s
```


What steps should I take to tackle this?

Review the lecture handouts, consult on-line resources including:

https://www.w3schools.com/html
https://www.w3schools.com/css
https://www.tutorialspoint.com/html
https://www.tutorialspoint.com/css/

And come along to TA and Instructor office hours to ask questions.

How much code will I need to write?

A model solution that satisfies all requirements adds approximately a dozen lines of HTML and around three dozen lines of CSS.

Grading scheme

The following aspects will be assessed:

1. (100%) **Does it work?**

    a. Basic Requirement (50%)
    b. Advanced Requirement (50%)

    25% deduction if your code is poorly formatted or does not pass validation at http://validator.w3.org/.

2. (-100%) **Did you give credit where credit is due?**

    a. Your submission is found to contain code segments copied from on-line resources and you failed to give clear and unambiguous credit to the original author(s) in your source code (-100%). You will also be subject to the university academic misconduct procedure as stated in the class academic integrity policy.

    b. Your submission is determined to be a copy of a past or present student's submission (-100%)

    c. Your submission is found to contain code segments copied from on-line resources that you did give a clear an unambiguous credit to in your source code, but the copied code constitutes too significant a percentage of your submission:

        - < 25% copied code — No deduction
        - 25% to 50% copied code — (-50%)
        - > 50% copied code — (-100%)

What to submit

Run the following command to create the submission archive:

```
$ npm run zip
```

**** UPLOAD** `CSE186.Assignment1.Submission.zip` **TO THE CANVAS ASSIGNMENT AND SUBMIT ****

