Pichy Jumpholwong & Zac Nakamura
Lab 4
4/19/22

## Task 1: Pseudocode of an Everyday Task

**How to Take the Bus from UCSC to Trader Joe's**

1. Make sure you have your student id and mask.
2. Take any of the metro busses to downtown, except the 22. Make sure the bus doesn't say "LOOP".
3. Get off at the metro station, which is the very last stop.
4. Go north up Front St. until you arrive at Front St. and Soquel Ave.
5. You made it! Have fun shopping!

Our pseudocode of an everyday task.

## Task 2: Pseudocode a Computer Task

**N-Queens Problem**

1. Print the board.
2. Take the user input.
    ○ Input any number
3. Validate the user input.
4. Evaluate available spaces on the board.
5. Print all possible solutions.

Our pseudocode of a computer task

## Task 3: Turn pseudocode into comments:

```
lab.js
1   // Creating and practicing pseudocode for a game.
2   // The n-queens problem finds the amount of different ways queens can be placed on a chessboard
3   // so that non of them can attack each other.
4   // @link    URL
5   // @file    This files defines the pseudocode for n-queens problem.
6   // @author Zac Nakamura and Pichy Jumpholwong.
7   // @since  4.15.22
8
9   // Print the board.
10  // Take the user input.
11      // Input any number
12  // Validate the user input.
13  // Evaluate available spaces on the board.
14  // Print all possible solutions.
15
```

Screenshot of our pseudocode in JavaScript file

## Task 4: Create an index.html for Lab 4

### Challenge

The challenge that this lab presented was coming up with a high-level pseudocode list. It was challenging at first to think of steps that were not too simple, but also clear and easy to understand.

### Problems

One of the problems we faced initially was that we used unordered-list of an ordered-list within our index.html file for describing our high-level list. It caused some formatting issues, but we later realized that we should have used an ordered-list.

### Results

We were quite happy with our results as they matched what was asked for on the Canvas page. We did not want our webpage looking bare, so we decided to change up the colors so that it matched up with the steps we were describing. Although extremely simple, we liked that we added color and changed the alignment of our text to make it more appealing.

Our pseudocode using the "pre" tag:

```
    Print the board
      Loop through each row
        If the space is empty and not interfering with another Queen, place a Queen
        If not, print error message
      Return all possible solutions
```
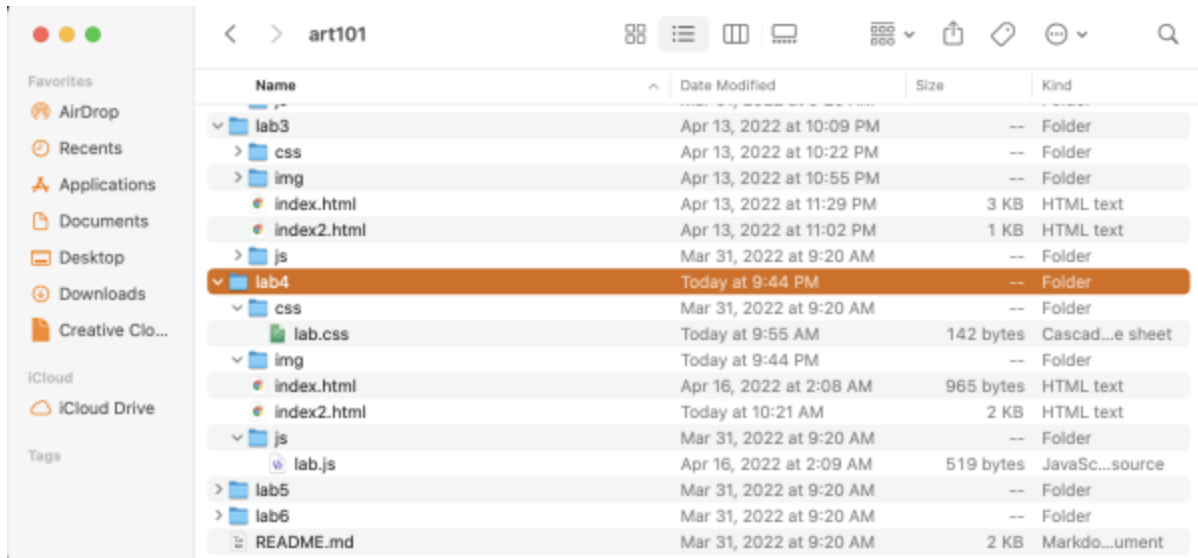
Our pseudocode list of an everyday task:

```
1. Make sure you have your student id and mask.
2. Take any of the metro busses to downtown, except the 22. Make sure the bus doesn't say "LOOP".
3. Get off at the metro station, which is the very last stop.
4. Go north up Front St. until you arrive at Front St. and Soquel Ave.
5. You made it! Have fun shopping!
```

Our pseudocode list of a computer task:

```
1. Print the board.
2. Take the user input.
    ○ Input any number
3. Validate the user input.
4. Evaluate available spaces on the board.
5. Print all possible solutions.
```

Screenshots of our final published Lab 4 page

Screenshot of our Lab 4 file structure

**Self-Evaluation Rubric:**

| Self Evaluation Rubric (Pichy Jumpholwong and Zac Nakamura) | | | | | | |
|---|---|---|---|---|---|---|
| **Did you complete the assignment and did you complete it on time?** | Submitted on time | Up to 1 day late | Up to 2 days late | Up to 3 days late | 4 days late or more | Do you need to clarify? |
| | ✅ | 🖥 | 🖥 | 🖥 | 🖥 | |
| **Did you collaborate with a partner?** | Worked with partner | | | Worked alone | | Do you need to clarify? |
| | ✅ | | | 🖥 | | |
| **Did you put in earnest effort and provide an articulate summary of your experience?** | Excellent | Pretty good | About average | Could be improved | Not this time | What supports this? |
| | ✅ | 🖥 | 🖥 | 🖥 | 🖥 | |
| **Was the assignment complete, with minimal errors, correct output, and good style?** | Excellent | Pretty good | About average | Could be improved | Not this time | What supports this? |
| | ✅ | 🖥 | 🖥 | 🖥 | 🖥 | |
| **How much EXTRA effort did you put into the assignment?** | A lot of extra effort | | Some extra effort | | Not this time | What supports this? |
| | ✅ | | 🖥 | | 🖥 | |

**Summary of your evaluation/efforts:**

We both met in person to work on this lab side by side. In order to come up with an everyday task, we both brainstormed an idea that we felt everyone could relate to. We both ensured that whilst we were writing our pseudocode, we looked and tested each other's websites so that everything was correct and matched. Although sitting next to each other might minimize this, it was important that we both revised each other's code as small mistakes can occur. Because we did not want a plain black and white webpage, we decided to add yellow and blue colors so that it not only looked appealing but it also looked like it matched our everyday task. Together, we looked at different hex color codes and browsed around to see which shade of yellow and blue looked best. It was great for us to actually browse different colors as the first ones we see will not always be fit, and testing for code is great practice in general. In order to be inspired by a game to write pseudocode for, we decided to look at past coding projects that would be a great fit for it. It helped us remind and refresh our memory about pseudocode and how things can be structured.