

URL for js\_part2.html online (choose github):

[https://miaxiaoyu.github.io/CS120\\_Web/Assignemnet4/js\\_part2.html](https://miaxiaoyu.github.io/CS120_Web/Assignemnet4/js_part2.html)

**Were there any problems in this assignment you could not complete?**

No.

I am able to complete all problems, but I did need to look up some additional JavaScript methods. For Problem 6 and the Extra Credit, I use `document.createElement()` and `appendChild()` to dynamically create the option elements, since the problem specifically asked to use JavaScript to create them rather than hardcoding in HTML. I also looked up `splice()` for removing items from arrays and `selectedIndex` for working with select elements.

**What was the most challenging part of this assignment for you – and why?**

**Problem 3** made me think differently about solving problems. At first I realized I can't use a for or while loop by restriction, so I have to find a different way. Instead of writing a loop and building the string piece by piece(what I used to do), I could just chain these array methods together. Finally I use `map()` to transform each name into a numbered item, then `join()` to put it all together.

The **Extra Credit** was the most challenging but also the most rewarding. The tricky parts were:

Managing two different arrays - keeping track of the original states list and the added states list, and making sure they stayed in sync

Figuring out how to remove items from the select list - I had to think through removing from the array, then rebuilding the entire select element

Making the "Clear States" button restore everything - I need to completely reset both arrays and rebuild the interface.