

Post-React self review

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Overview/TL;DR:

The exercise was challenging, yet rewarding.

I didn't get to create a friendly UI, and the randomization algorithm can be improved.

The good

1. Even though I choose to implement this job in REACT, in which I have little to none experience and knowledge, I surprised myself with what I accomplished and the amount of documentation I read and implemented during this assignment.
2. The basic mechanism does what it is supposed to do.

The bad (PC: to improve upon)

1. I use a lot of space with the new arrays and sets each time. Better data structures should be considered.
2. The UI is not friendly and not responsive. Even though I have a basic understanding of CSS, I couldn't implement it in this assignment. The stress got the better of me.
3. The randomization algorithm can be improved. It's two main flaws are:
 - a. It prefers the first team
 - b. it prefers support, carry, nuker, disabler in that order.

Also, the random selection itself can be stuck in a loop but the odds for that are low.

Improvements that can be made:

- a. randomize the order in which the teams fill up.
- b. randomize the order in which the roles fill up.
- c. let the team fill up be in turns (like a draft).
- d. shuffle the roles arrays beforehand and pop.
- e. If a hero that had previously been selected had been selected again, instead of choosing another random number, we can remove it (the hero) from all of the arrays in which he is present. It is a costly operation. It's worth researching whether or not the runtime is improved by doing so, or the chances of randomizing the same number again and again even have a noticeable effect on performance.

The ugly

The UI.

In summary:

It's not my best work by a long shot, but since I wanted to release a POC as soon as possible and since I was using an unfamiliar environment, I think my effort can be considered fine.