עמותת תפוח
Appleseeds
جمعية التفاح

Sorting algorithms

Topics:

- sorting

Tips:

- get to the point you can write sorting after it was deleted in 5 mins.
- think about edge cases

Tasks:

1. merge sort tasks:
    a. Implement merge sort – think about space complexity!
    b. sort with the conditions:
        i. Sort numbers – by absolute values
        ii. Sort list of strings – capital before lowercase
        iii. Sort numbers – odd should be before even
        iv. Sort numbers – primes before the rest

2. quick sort task:
    a. Implement quick sort – think about space complexity!
    b. sort with conditions:
        i. if number is divided by 5 and 3 > divided by 5 > divided by 3 > regular num
        ii. sort by number of digits
        iii. sort by reminder of deviation by num n

3. bubble sort tasks:
    a. Implement bubble sort – think about space complexity!
    b. sort with conditions:
        i. sort by diff from target number n (for example, if target is 5, sort by the results of 5-num)
        ii. sort by palindromic numbers first

4. heap sort tasks:
    a. Implement heap sort – think about space complexity!
    b. sort with conditions:
        i. value of the sum of the digits (for example - 24 will be before 31, because 2+4 > 1+ 3
        ii. sort by perfect numbers first