DSA

Heaps

14 March, 2018

The following questions are standard questions available on various websites, Try to submit them to be sure about logic and implementation.

Important: Try to solve the problems by implementing Heap from scratch (Array implementation), as you may be required to do so in the Lab. (Rather using inbuilt priority_queue available in C++ STL)

- Given an almost sorted array such that each element is atmost k positions away from its target position in the final sorted array. Provide an *O(nlogk)* algorithm.
- Given a BST, convert it into a Heap.
- For a given n, find the number of distinct MaxHeaps possible from n distinct integers.
- Given a sequence of n unsorted numbers, find the minimum number of steps required in which the elements in the sequence can be added to make all elements greater than or equal to k. (You are allowed to take two elements and make them one).
- Find the Running Median in O(logn)
- Heap Practice Question
- Average Waiting Time