

CS 381 PSO #4

Week 5

“Warm-up” 1

Given k sorted linked lists, with n total nodes, merge them into one.

“Warm-up” 2

Given a set of n strings of length m , find the longest common prefix.

A sorted array A with n elements is known to have a few distinct elements that each have many repetitions.

Design an efficient algorithm to deduce the number of distinct elements as well as the number of times each such element appears

Use m to define the number of distinct elements.

Show the linear time selection algorithm does not yield a linear time algorithm for selecting the k 'th smallest element if the elements in the array are partitioned into groups of 3.

Find the median of two sorted arrays A and B of length n and m (without merging them)