

Interview 1

1. Given an array of size $n-1$, missing a number for 1 to n . Find the missing number. No Extra space.
2. Given two strings, find if one string has an anagram of another string as its substring.

Interview 2

1. Given edges of a graph, where edges are equivalence relation. Find the number of connected components.
2. Given 2 8GB RAMs. Connected with a high speed network to each other. Sort and merge these RAMs.

Interview 1

1. You are to send a kernel image to a data centre on moon, How will you do it?

Interview 2

1. Find local minima in an array. $O(\log n)$
2. Find longest increasing sequence having consecutive elements in a 2D array.

Interviews

1. $N = a_1^2 + a_2^2 + \dots + a_n^2$
what is the minimum value of n .
2. Kadane's algorithm
3. Linked list add 1.
4. Given a binary string with '?' at some places, implement a method which gives me next string which haven't come yet. Can not store all old strings.
5. Spiral Printing of 2D matrix.
6. Given a DB, how will make a cache system over it?

Interviews of

1. Running Median. $O(K)$ Space. Find Probabilistic Median.
2. Queue me log khade hain wala question, mujhe yaad nahi but it's a very good question.
3. You are given a 2D grid, with some heights. Water can flow in 4 directions from a point i.e. up, down, left and right if the corresponding cell has height \leq the cell from which the water is supposed to flow. Two sides are pacific ocean say left and top and two sides are arctic ocean say right and bottom. You are to output cell from where the water can flow in both pacific and arctic ocean.

Interviews of

1. Given an array having both positive and negative integers. You are allowed to have two kinds of moves.
-> Swap
-> Remove element from the end.

Output a sequence of moves such that all the positives remain in the array and there sequence doesn't change.

2. Trie wala
3. Shubhang wala Equivalence wala
4. Minimum number of partitions of a string such that every partition is a palindrome.

Interviews

1. Grey code
2. Merge Linked list
3. Queue People
- 4.

Aman:

- 1) Given a string, count the total number of palindromic substrings in it.
 $O(n)$ time. $O(1)$ space.
- 2) Given a $N \times N$ grid and a position (X, Y) of a man on it. He is allowed to take K steps in any of the 4 directions. If he steps out of the grid, he dies. Find the probability that the man survives after K steps. (PS. The steps taken are unbiased i.e doesn't depend upon where he is standing).
- 3) Given a doubly linked list of size m and a set of n random pointers to the list ($n \ll m$). Find the number of connected components in the list.
- 4) Given a string S of digits, find the next higher palindrome.
eg. Given $S = 20$, ans = 22
 $S = 121$, ans = 131.

Complexity: $O(n)$ where n is the size of the string.

- 5) Given an array of integers, find any one local minima. $O(\log n)$ required.