

VMWare Interview Experience

I Telephonic round

1. Given an array of strings. Find the maximum prefix among all the strings.

Ans: First told about tries. Then went for trivial answer saying compare all the zeroth indices then first indices.

2. Similar to kadane's algorithm

3. Monty Hall puzzle.

Ans: Told the ans as 1/2 after taking 5 mins. Tried to prove using probabilities but could not able to.

I F2F round

1. Given an unsorted array, find the max $j-i$ such that $j > i$ and $a[j] > a[i]$ in $O(N)$.

Ans: Told trivial solution in $O(n^2)$. Then used DP but still $O(n^2)$. Then told using sorting approach in $O(n^2)$.

Could not able to solve even after giving 45 mins of time as it is not trivial answer.

2. Given a rectangular cake and 3 persons have to share it. First person took a rectangular cut. How will you cut such that remaining two people will get the same amount?

Ans: First told horizontal cut where interviewer surprised with the answer and asked for different solution. Then told cut along a line such that it touches center of mass of both the rectangles.

3. Asusual about current work and why VMWare.

II F2F round

1. Given k -sorted lists. How will you sort the list in to the new whole array?

Ans: Standard Q. Then asked about time complexity.

2. What if they are not sorted lists.

Ans: Sort the individual arrays first. Then told about heap solution which is not effective. But he is happy with the approaches

3. Lots of questions on C++. As I worked on C++ in current company.

a. What is the use of friend functions and classes? What are the advantages and disadvantages? Where do we use them?

b. What is virtual destructor?

c. Why virtual constructors do not exist ?

4. He is the same person who interviewed me for telephonic. So asked once again about Monty Hall Puzzle.

Ans: Proved this time with probabilities.

III F2F round

1. About routing protocols.

2. How to counter count to infinity problem?

Ans: Told several approaches and he is expecting poisson reverse which I could not tell.

IV F2F round

This is with the manager. This is like rapid fire where interviewer keeps on asking me questions which has either one or two line answers.

1. What are the protocols that you know in transport layer?
2. What is the difference between UDP and TCP?
3. What is the connection end point in TCP ?
4. What is the systemcall which creates a seperate connection? (Indirect question about Accept system call)
5. Which system call is used to poll among fds? (select or epoll_wait)
6. Why virtual functions?
7. If you already have a memory, how will use that memory to allocate a new buffer? (placement new)
8. 2-D dynamic array allocation syntax?
9. Arp protocol and why it is used?
10. Why ICMP is used?
11. What are the protocols that you know at MAC layer ?
12. Virtual base classes and why it is used?

After one day HR interview was scheduled.

Typical HR questions. At that time only he told that they are going to give offer. Did not negotiate at all as they offered me decent.