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Microsoft Interview | Set 5

- Difficulty Level :\nHard
- Last Updated :\n30 Jun, 2021

Hi everyone, I would like to share my experience with MicroSoft, as i have been the lucky hire.\xc2\xa0

Date: 27th August 2012\xc2\xa0

No. of Rounds: 2 Written(online) + 4 rounds of PI(all Algo/Technical)\xc2\xa0

Type of Interview: Campus Interview for freshers\xc2\xa0

Written (online)\xc2\xa0
Objective(60 minutes) + Subjective(60 minutes)\xc2\xa0

Objective: Aptitude + Reasoning(30 questions) and technical(20 questions, C/C++ programs, flow chart, identify correct function)\xc2\xa0

Subjective: 3 coding question(No in-build compiler in Web-Browser, simply you have to write your working code as a function/functions)\xc2\xa0

1. [A number is given say n, find the minimum number which is greater than n and has same no. of set bits in it.](#)
2. [Binary search tree to Doubly linked list conversion(prefer in-place conversion)](#)
3. [Find the second maximum no. in an array](#)

Personal Interviews (4 rounds)\xc2\xa0

Round 1: (40-50 mins)\xc2\xa0

1. Details about the project that i have listed in my resume, asked various question related to those projects.
2. details about q1 and q2 which is asked in the Subjective round, how you solve the problem and ask to write the same code I have written in Test and explain it.
3. question from OS:\xc2\xa0
   \xe2\x80\xa6.**i)** You have 10 GB of RAM, and you load multiples instances of a program of size 1 GB(let\xe2\x80\x99s say more than 10 instances), then what will happen, how the OS handle this situation and up to what extends?\xc2\xa0
   \xe2\x80\xa6.**ii)** [producer \xe2\x80\x93 consumer problem](#)

Round 2: (20-30 mins)\xc2\xa0\xc2\xa0

1. [You have given a number N, print all balanced parenthesis expression which can be generate using N pairs of open and close braces.](#) For ex. for N=3, ((())),()()(),()(()),(())()\xc2\xa0
   First i gave him a brute force solution(generate all possible combination and check for valid expression),then he ask me for optimized code and I was able to do it after little mess-up.also ask for complexity of my code.
2. [You have given a adjacency matrix of a graph, find the number of connected component set of the graph.](#)

Round 3: (35-45 mins)\xc2\xa0\xc2\xa0

1. A string str and two character a and b are given to a function, find out the minimum distance between these two given characters in the str. first I gave him a brute force solution(O(n^2)) then he ask to optimize it (O(n)) and finally somehow i was able to do it.
2. You have n processes and m available resources, explain each step of OS in the execution of those process along with which data structure will be suitable at a condition, which scheduling algorithm will suit best, also in case of preemptive scheduling, waiting queue etc.. its take a long time to explain him. but finally he is satisfied with my answers.
3. Write a modified strcmp function which ignores cases and returns -1 if s1 < s2, 0 if s1 = s2, else returns 1.
4. iterative inorder traversal.

Round 4: (40-45 mins)\xc2\xa0\xc2\xa0

1. Give a schema for college student database management(tables, attributes and relationships), ask me to normalize it up to 3NF.
2. Some queries based upon schema:\xc2\xa0
   Find the maximum score of each student in his/her last semester\xe2\x80\x99s math subject.(it also be possible that some student got year back and not promoted, handle all the cases).\xc2\xa0
   I tried it hard, gave him 2-3 wrong answers, but not able to do it(as i\xe2\x80\x99m not very good in DBMS).. but he was satisfied with given schema.
3. He ask me about favorite programming language, and why I like that language..
4. You have given a range in Integer(a to b), find all the prime number between a and b.\xc2\xa0 \xe2\x80\xa6..**i)** first i gave him the simple solution(check every no. whether it is prime or not).\xc2\xa0
   \xe2\x80\xa6..**ii)** then he asked about Sieve and to implement it, and which on is better(first approach or sieve)
5. what is most challenging moment in your B.Tech life. ?
6. Why do you want to join MicroSoft.?
7. Some question on my hobbies.
8. do you have any question for me.?\xc2\xa0
   i asked 2-3 questions related to job profile(SDE/SDET) that they are offering,current projects and areas.

Finally\xe2\x80\xa6end of PIs and After 10-15 minutes, To my great relief, this time I was hired\xe2\x80\xa6

Many Many congratulations to **Ajeet Kumar**. If you like GeeksforGeeks and would like to contribute, you can also write an article and mail your article to review-team@geeksforgeeks.org. See your article appearing on the GeeksforGeeks main page and help other Geeks.\xc2\xa0

All Practice Problems for Microsoft !\xc2\xa0

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My Personal Notes\narrow_drop_up

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