

INTERVIEW EXPERIENCE : TRUMINDS
SACHIN SHARMA (MCA)

Round 1 : Online Assessment (No Negative Marking) : 120 min

Platform : Hakerearth

Total no. of questions : 19

No. of MCQ : 18

No. of Programming question : 1

- MCQ's consisted of OS, DBMS, Quantitative Aptitude, reasoning and pseudocode output based questions.
- Coding Question :
You are given a rectangle with dimensions $N \times M$ and an integer K . Divide the rectangle into smaller sub-rectangles such that rectangles must be parallel to the axis of the target rectangle with dimensions $N \times M$ and every sub-rectangle has at least one edge on the larger rectangle edge.
For a sub-rectangle with area S , the cost of this sub-rectangle is $(S-K)^2$.

Task is to determine the minimum total cost to divide the larger rectangle into smaller sub-rectangles.

[Only two test cases passed among ten test cases]

Round 2 : Technical Interview : 30 min

Platform - Microsoft Teams

1. My Intro
2. Questions on OS, OOPS, DSA and Computer networks like:
 - Polymorphism
 - What is socket?
 - Types of Data Structures
 - Sequential vs Non-Sequential data structures
 - Where Heap memory resides? -> RAM
 - What is Hashing?
 - Map in C++ (as I mentioned that I code in C++)
 - Types of constructor
 - Thread vs Process etc.
3. He told me to share my screen and to open any IDE and gave me the following questions (not asked to compile the code):
 - Detect the loop in a linked list if present
 - To give an example of virtual function using a base class and a derived class
 - Write the syntax of copy constructor

Round 3 : Leadership Discussion : 35 - 40 min

Platform - Microsoft Teams

1. My Intro

2. Project Discussion:

I created a full stack food ordering web app using Next Js and MongoDB so he asked me:

- Which type of DB is mongoDB?
- Types of DB's
- Which is better between mongoDB and MySql

3. Questions on Computer Fundamentals(mostly CN) and Data structures:

- What is Thrashing?
- What is Page fault?
- What is the OSI model?
- All the layers in OSI model
- Sockets
- TCP and UDP
- Three way handshake
- IP and MAC addresses
- IP is for which layer and MAC is for which layer?
- Microsoft Team uses which protocol TCP or UDP?
- What is an AVL tree?
- Time Complexity of finding an element in an AVL tree
- $\log_2(1000) = ?$
- What is your favorite subject?
- What do you know about the Truminds?
- Write a code to check a string is palindrome or not (asked me to compile the code also)
- Asked about my family background and my location in Delhi.
- Then he asked me whether I had any questions or not.

Some Suggestions:

- Firstly prepare Computer Fundamentals (OS, CN and DBMS) and OOPS. (You can prepare notes from youtube (Knowledge gate) for Computer Fundamentals)
- Do DSA questions on leetcode, gfg etc. (you can do striver's DSA sheet)
- You should know all about your projects.
- Improve your communication skills by practicing.

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