

HSC Interview Experience

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Round 1 (Online Assessment)

Difficulty: easy-medium

There were 40 MCQ Questions from Aptitude, CS Core Subjects and English.

Technical Questions were from

- OS: Scheduling, Paging, Linker- Loader, fork()
- DBMS: SQL
- C
- Time Complexity e.g. sorting

There were 2 Coding Questions (Attempt Only 1)

Question 1

You have some initial amount of money M with you and there are N items with some buying and selling prices. You can buy only one item at a time and to buy another you have to sell the item already bought. You can use profit money along with the initial amount to buy new items. Find the maximum profit you can make.

Approach

- Find Item whose (buying price $< M$ and Profit i.e., selling – buying) and add the profit in M and a new variable totalProfit.
- Repeat until you have no item left to buy.

Question 2

Mary has baked K cakes and she wants to put numbered candles on top of each of them. She wants to put candles numbered $1, 2, \dots, K$ on the cakes (one candle on each cake). She went to the store to buy candles. The candle shop has a stack of N candle boxes. The shopkeeper is lazy and will only sell the candle on top of the stack each time a customer comes. Mary does not want to spend too much extra money yet she wants to buy the candles she needs.

What is the minimum number of candles that Mary has to buy in order to have at least the candles numbered $1, 2, \dots, K$.

Notes

- All the boxes in the stack have one unique numbered candle.

- candle[0] is at the top of the stack, whereas candle[N-1] is at the bottom of the stack.

E.g.

Input

N = 5

K = 3

Candle = [2,1,3,4,5]

Output 3

Approach If Mary buys the top 3 candles she will have [2,1,3] candles which have all 1,2,3.

Round 2 (Technical Interview)

Difficulty: Easy (Approx 30 min)

This round was totally based on Core Java

Interviewer started off with my introduction then Basic Questions were from topics like,

1. OOPs
2. Collections
3. String
4. Exception Handling

Some of the questions were:

1. Difference between Final, Finally, Finalize.
2. What is Object Class?
3. Given Employee class with id and name how will you sort Employees according to their names? **Expected Answer:** Comparator / Comparable
4. Sorting and their types?
5. Write code for merge sort, Bubble Sort and their TC, SC.

Round 3 (Technical + HR Interview)

Difficulty: Medium (Approx 50 min)

The interview started off with my introduction, There I mentioned Hindi Literature in Hobby So, HR asked some questions on that after that

He asked me to explain one of my Project.

1. Difficulty in Project.
2. Situation with conflict in Project.

All Technical Questions were from Core Java

1. Inheritance

Runtime and Compile Time with follow-up questions including parent child references.

2. Difference between Threads and Process.

3. String Pool

Followed by various scenario e.g. what if we create `String s = new String("rishi");` where is it getting stored.

4. Internal working of HashMap

5. JVM Internal Working: how is .java file executed

What is ClassLoader? Where is Static Variable Stored?

6. Constructors: Constructor Overloading etc.

7. **Coding Question**

Given `str = "10: 23,10:12,30:2"` find `[[10,35], [30,2]]`

8. What is Serialization?

9. HR asked,

Why Tech Role not something else?

Where do you see yourself in 5 yrs.?

Both Interviews were not very difficult if you are well versed with Core Java and have a decent Project to talk about.

1. Be Confident and Explain Everything in Detail. This is what I did.