

Amazon Interview experience | Set 324 (For SDE2)

- Difficulty Level : \nExpert
- Last Updated : \n08 Jul, 2019

I got a call from an consultant for recruitment drive in Delhi.

First round (1 hour 30 minutes): online written It was online written round on a platform called Stockroom.io.

1. [Two string a haystack and needle is given find at what all indexes needle occurs in haystack as an anagram](#)(0 based indexing)

```
\r\nINPUT: str1 = "ABACDABCABA" , str2 = "BA"\r\nOUTPUT: 0,15,8,9\r\n
```

Expected time complexity is $O(n)$. The only thing to pay attention was that ASCII characters starts from A.

2. Given A company's hierarchy where each employee reports to exactly one manager. and one manager can be reported by multiple employees, implement necessary setter getter functions in object oriented way. also write a helper instance methods to return lowest common manager for two given employees
answer to this question was simple but had to write object oriented code and zip it then upload it.

Second round(1 hour): Design round This was most critical and important round.

- Design a geographically partitioned multi-player card game, that supports multiple players, multiple games at a time. Each game will have one contractor like ones we have in a bar, He can play a game or just watch it. integrate payment systems.

First HLD was required, use cases, flow diagram. then a low level design was required all necessary classes where will u use polymorphism, where inheritance, multithreading, synchronised approach if needed, socket connections. Other things that surfaced and he asked as interview goes : round robin load balancer, hash-map based load balancer, two layer caching, nosql db, design patterns, solid principles, ACID property, CAP theorem etc. Interviewer was a senior person and knew a lot. I was nervous in this round but answered well.

- Many behavioral questions

Third round (1 hour): technical

1. Many behavioral and \xe2\x80\x9cwhat if you were in a situation\xe2\x80\x9d questions
2. [Given an array of words which comes in a dictionary of some language in the same order. tell if its possible?](#)
ans. represent characters of words as a graph and find out if graph is cyclic (cycle in directed graph)
the interviewer was very supportive. He gave me few important hints in terms of question understanding.

Fourth round (1 hour): technical He asked me what you like , I said array questions
\xf0\x9f\x99\x82 He started laughing.

- [given an array of integers and two types of queries point update and range sum?](#)

ans: I said binary indexed tree then he asked for other ways I said segment tree, He asked more , I said prefix array or sqrt decomposition.

he asked me to write code for the same. made some variations like lazy propagation.

- [topological sorting](#). given a words of dictionary tell alphabet ordering.
- many behavioural questions

Hr came and told me that we are done for the day one more interview is there which was on next day.

Hr was very supportive she gave me some constructive feedback and told me to get prepared well and come next day as next day was with a Bar Raiser.

Fifth round (1 hour): technical+ design + behavioural, Bar Raiser

1. asked tree related questions , how to represent and model a tree.
2. Design a Netflix type system. start from HLD to LLD. detailed discussed happened on this discussion on search, video serving, authentication, encryption, dns lookup, which caching strategy would you chose?
serving multi quality video etc.
3. few behavioural questions.

Few things to remember:

1. for technical go through geeksforgeeks practice test and interview experiences
2. for design have a look at carreercup
3. review OS concepts.
4. recruiters and hr is very supportive
5. prepare for behavioural questions well.
6. prepare \xe2\x80\x9cdo you want to ask any questions?\xe2\x80\x9d

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[All Practice Problems for Amazon !](#)

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