

## Amazon Interview Experience | Set 428 (For SDE-2)

- Difficulty Level : [Expert](#)
- Last Updated : 08 Aug, 2021

I was interviewed for customer returns team for Hyderabad campus. I had 1 year and 9 month experience at the time of getting interviewed. Less experience was something which was worrying me a lot. They generally ask for 3-5 years of experience, but come down to 2 years if you are good.

### Round 1 : Telephonic

- A brief introduction
- [Clone a Binary Tree with Random Pointers](#)
- [Write a program to calculate pow\(x, n\)](#)

### Round 2 : Technical Round

- A brief introduction
- [Program for Best Fit algorithm in Memory Management](#)
- Design a deck of card (only the model classes)
- NoSQL vs a SQL database (when to choose which)

### Round 3 : Manager Round

- A brief introduction
- Almost 15 minute discussion about what Customer Returns Team in Amazon does
- A very detailed description of technical challenge faced (it includes HLD, LLD and the solution offered)
- Design Promo Code API taking Amazon's customer traffic into picture (HLD and LLD was discussed including in memory databases)
- Which areas of yours would you like to improve upon? (Both technical and non-technical)

### Round 4 : Technical Round

- A brief introduction
- Variation of [Topological Sorting](#): You have been given a set of inter-dependent tasks along with the time taken to execute them. We have more number of parallel processors available than the number of tasks given. There could be multiple starting tasks. There could also be cyclic dependencies. Calculate the minimum time required to complete all the task. Complete end to end production ready code was expected.

### Round 5 : Bar Raiser

- A brief introduction
- Responsibilities in the current company
- Why do you want to change your company
- Anything which makes me different from somebody else (technical and non-technical)
- Any project which I'm proud of. What's so special about that particular project.
- [Arrange given numbers to form the biggest number](#)
- What difference does having a docker makes if compared to directly deploying applications on the VMs?
- When did you felt that you are not liking the status quo of a workflow? Any past experiences.

- Discussions about a mongoDB cluster vs an elasticsearch cluster (from my projects)

## Round 6 : Design Round

1. What is so special about typescript that both Angular and React included it in the recent versions. Tsc compiler, final output, difference between java, JS and TS were discussed. Any live project use case where TS helped more than JS(I come from a pure JS background that's why this question was asked)

2. Design a vending machine with following functionalities

- Three types of Users : User, Operator, Admin
- User can select and buy multiple items at a time. Money can be inputted multiple times (you will get the item if there is a time gap > 30 secs). He can also do window shopping (see only the prices of items and buy nothing)
- Operator can load the items and mark the items as expired if needed, gets notified if a product goes out of stock.
- Admin can own multiple vending machines, he should have a analytics report of the items purchased in a month. He can also change the prices directly and it should reflect in all the vending machines which he owns.
- Exception handling in all the edge cases

Both HLD and LLD were expected.

Round 2 to 6 were done in Amazon Hyderabad campus. All interviews were back to back. It started from 11 AM to 5:30 PM with just half an hour lunch break. Before I could even step out after completing one round, other interviewers would already be waiting outside. Interviewers were very helping, but only if your are thinking in the right direction. HR also was very supportive. He was coming and motivating me after every round. Some advices here

- If you couldn't solve a problem, don't carry forward negative thoughts into next round. It will affect the next round as well.
- If you have prepared well, importance of keeping calm and cool should not be ignored. Trust me, you won't survive the stress of whole day otherwise.
- All the codes you would be asked to write down on paper and designs on the white boards, so practise accordingly.
- Prepare for the design interviews well, they play a big role for SDE 2.

My Personal Notes

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