

Amazon SDE I Off-campus Hiring

- Difficulty Level : [Hard](#)
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I have applied to multiple positions on LinkedIn. Finally, I got a mail stating that I can give my online test on Hackerearth platform.

Round 1:

It was for 90 minutes, consisting of 20 multiple-choice (negative marks for wrong answers) and 2 coding questions. The questions were asked from Data Structures, Operating Systems, Computer Networks, DBMS, Time complexity and recurrence relations. Most of them were taken from Gate preparation guide from GeeksforGeeks. Some of the questions include,

1. Circular Queue: find the front and rear after specific operations?
2. Increasing RAM increases performance because?
3. CPU handles an interrupt by executing an interrupt service routine by checking what?
4. Binary search recurrence relation?
5. Quicksort worst-case complexity when the pivot is the $n/4$ smallest element using an $O(n)$ algorithm?
6. The best time complexity for finding the n th Fibonacci number?
7. Tightest upper bound for binary search tree insertion?
8. Given some statements about ER and relational models, find the false statements.
9. Given some statements about threads, find the true statement.

Coding Questions include,

1. [Chocolates distribution problem](#)
2. Check if any sub-string and its reverse exist in a given array of strings.

After three days, I got the result and I was told to come to Amazon Bangalore campus for further technical discussions.

Round 2:

1. Tell me about yourself.
2. [Sort a given LinkedList.](#)
3. Find the number of disconnected components in the given directed graph.
4. Discussion about Dynamic programming and recursion.
5. Discussion about the team, that I was giving my interview for.

This round went for an hour and I was told to write the working code. I coded in Java writing all the necessary comments, importing all the necessary packages, handling all the exceptions and edge-cases. The interviewer was really impressed.

Round 3:

1. Tell me about yourself.
2. [Given two nodes, find the shortest path in the given binary tree and binary search tree.](#)
3. Given an infix expression as a string, evaluate it. We need to handle invalid strings, operator precedence, space characters, non-numeric characters, etc. Much importance was given to data structure as well.
4. Given a 2D maze, a man with a starting position, list of possible moves and a number k , find the probability after k moves the man will stand inside the maze.

This round went for more than 2 hours. For all the above questions, I was told to handle all the edge cases, and the interviewer was focused on the optimal solution and working code for all the problems.

Round 4:

1. Tell me about yourself.
2. [Count ways to reach the nth stair](#)
3. [Print all Jumping Numbers smaller than or equal to a given value](#)
4. Questions on deadlock, handling, and its prevention.
5. Questions on Java Strings and string pool.
6. How SSH works?

This round went for more than an hour questions I was asked about the reasons for which I was using specific data structures for the about coding questions.

HR told me that I was doing really good and I was told that I will have one more round and that will be a bar-raiser. After two weeks I got a mail saying that I will have the next round in three days. It was on Amazon Chime.

Round 5:

1. Tell me about yourself.
2. Deep dive into my internship project and my individual contribution.
3. Questions on HashTable.
4. Deep dive into LRU, and its working in real computers like what is stored in the cache.
5. Questions on page faults, thrashing.
6. [Two numbers with sum closest to zero](#)

This round was with a Senior Manager and a recruiter from Jordan. All the questions were focused on the depth of knowledge I had.

The first four rounds, I did really well and I was able to impress the interviewers and they were also happy with my performance. I felt that I was not performed well in the final round. Make sure you have a really good Internet connection. Amazon considers each and every round before rejecting a candidate. Most of the rounds were focused on Data structures, algorithms, time complexity and problem-solving. I prepared for System Design questions, but I was not asked anything about it as I'm a fresher.

Companies like Amazon has policies that state that if a candidate has appeared for the interview and if he/she is not selected, then the candidate cannot apply for the next six months. Also, once you are in the interview process, you will never know when the further rounds will be scheduled and you will not get ample time to prepare. So, before applying for jobs, make sure you have prepared well.

Result: Selected.

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