Paytm Interview Experience

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- **Round 1 (Coding Round)**
  Platform: Cocubes
  Time: 70 minutes
  Number of Questions: 3

  The questions were of easy/medium difficulty.
  Also mentioned in the instructions was that the code would be scored taking into account the space and time optimizations.
  If left with enough time, try to comment your code!

  Question 1
  Row wise sorting in 2D array
  https://www.geeksforgeeks.org/row-wise-sorting-2d-array/

  Question 2
  Join Nth node from the front of the linked list to Kth node from the end and append the middle remaining part if any to the end of the so obtained linked list.
  Provided Assumption: N+K<=Total no of Nodes
  Input: 1->2->3->4->5->6->7->8 k=3, n=2
  Output: 1->2->6->7->8->3->4->5

  Question 3
  Sum of cousins of a given node in a binary tree
  https://www.geeksforgeeks.org/sum-of-cousins-of-a-given-node-in-a-binary-tree/
  Provided Assumption: The given node is unique in the binary tree

  26 students were shortlisted for the 2ⁿᵈ round (Virtual Interviews).

- **Round 2 (Microsoft Teams)**

  First Level Discussion (45 Minutes)

  The interviewer asked for a brief introduction and started discussing about my projects in detail for about 10-15 minutes. The projects to discuss were chosen by the interviewer.
  He then dived into the coding part and asked me to code quicksort on any editor of my choice and asked for its space and time complexity
  https://www.geeksforgeeks.org/quick-sort/

  Then he asked me about different scenarios that one may encounter while deleting a node from a BST and asked me to code the same for it.
  https://www.geeksforgeeks.org/binary-search-tree-set-2-delete/

  Then he asked me to print a level order traversal of a binary tree
  *Be sure to acquire minute details also such as the structure of the tree class etc.
  https://www.geeksforgeeks.org/level-order-tree-traversal/

  After that he asked me to print all prime numbers upto N.
  I provided with a brute force approach first and then optimized it used Sieve of Erastosthenes.
  https://www.geeksforgeeks.org/sieve-of-eratosthenes/

  He finished the round with an SQL query
  To select last 20 rows from a table in which the primary key is ordered in ascending order.

  At the end I asked about some feedback for the session and he responded positively.

Second Level Discussion (70 Minutes)

The interview started with a brief introduction from both sides and I could sense that the guy was very friendly and frank. He had almost 10 years of industry experience and was his team's lead at Paytm.
He then asked about my projects and dived deep into the tech stack used in one of my projects so make sure you're absolutely clear about why you're using whatever you're using. In my case it was React, Redux and Firebase.

Some of the questions went like
Lifecycle Methods in React and then some internal working in my project.
Why Redux
Difference between SQL and NoSQL and their pros and cons for different circumstances.

He seemed pretty invested in another one of my projects and we had almost 15-20 minutes of discussion of its use cases and some improvements in it.

Then I was asked to print the right view of a binary tree and discuss its space and time complexities. He was asking questions at each line of code and was satisfied with my solution.
https://www.geeksforgeeks.org/print-right-view-binary-tree-2/

Then he asked me to write a code to print the Lowest Common Ancestor in a Binary Tree
Again gather details like if both the nodes are present in the tree or not.
I straightaway gave the optimized recursive one pass approach and then coded the same.
https://www.geeksforgeeks.org/lowest-common-ancestor-binary-tree-set-1/

At the end I again asked for a feedback and was responded positively. Then I asked about the work culture at Paytm and the tech stack he was working on. This discussion lasted for about 15 minutes.

Key takeaways:

Answer confidently and think your approach out loud.

If you know the most optimized approach, I'd say don't take too long providing it as long as you can justify each and every aspect of it.

Brush up on all of the technologies used in your projects.

If you feel stuck at any point of time during the process, just stay calm and do not go completely silent, try to present the different scenarios where your approach might not work and keep working on it.

You've got this, all you have to do is keep hustling hard and give it your best, everything else is sheer luck.