Juspay Interview Experience

Round 1 - Coding Round

- This round consists of three questions with one given scenario, all three questions are asked based on the scenario.
- Each question has ten test cases, most of the edge cases will be included within this test case.
  - This will be conducted on HackerEarth platform, you have to pass a minimum 15 test cases to advance to the 2nd Round.
  - Try to practice previous year questions, which you can find in Geeks for Geeks, Ambition Box, Leetcode, Glassdoor.

Round 2 - Hackathon Part A

- This round consists of one question with 9 test cases.
- This was also conducted on HackerEarth.
- We have to write code to get input.
- The question was based on the N-ary tree. We have to perform three operations on the tree (Lock, Unlock, Upgrade).
- It was quite a challenging question, I was able to solve the question by passing all 9 test cases.
- **I have attached the questions at the End.**

Round 3 - Hackathon Part B

- In this round you will be allocated with a mentor on the slack channel(a chat Application like discord).
- Your Part A code will be shared here and to perform some optimization in the code you wrote.
- This round started at 11 am. First he told me that there was a small bug in the code and asked me to rectify it.I told my approach and I proceeded with my logic.
- Then,He asked to do some changes to the lock and upgrade and unlock functions.
- Then he posted the Part B question about handling the code while executing in a multiprocessor system.The question was about making the code Thread Safe.
- First he told me to find the Race Conditions that may occur while performing the operations.

- I found 2 of them and he gave 3 test cases for each Race condition.
- He told me I was not allowed to use Synchronized or semaphore or mutex,locks or conditional variables.
- I was able to solve 5 test cases from both but then time came around 8.30pm,i requested him to give me some more time since i was left with only one test case.
- He gave time upto 9:30 ,I was able to provide a solution before the time,but he told me that the approach was right,but I need a better solution and he told me that the day ends here.
- I was selected for the next round.

Round 4 - Technical Interview

- Self Introduction
- The interviewer was an experienced person in web development and App development as well,so I got most of the questions from my projects since I developed projects using React JS and React Native.
- I did the same project for both web and App as well so,my questions were like comparison(For eg.How you handled this situation in web and App).
- Then he asked a few questions from Computer Networks,and I was able to explain all of them.
- Then he asked how do you write code to your own browser that the browser understands and displays an image file from HTML.which i was not able to explain in depth.
- Then he asked to explain the useState function from React.I was able to explain well.
- But then he asked how the developers would have coded the useState function which I was unable to answer.
- Then he told me to show my Github Profile and Told me to explain the project code.
- Then he asked whether I had any questions to the interviewer.
- Other than two, I was able to answer all the questions.
- The interview lasted about one and half hours .Later in the evening I got a call that I have been Selected for the Product Engineer Role.

Round 1 Questions :

Q1)Nearest-Meeting-Cell -

https://leetcode.com/discuss/interview-question/2070079/Juspay-or-OA-or-SDE-intern-%2B-PPO-or-On-Campus-or-Nearest-Meeting-Cell

Q2) Largest-Sum-Cycle -

https://leetcode.com/discuss/interview-question/2065974/Juspay-or-OA-or-SDE-intern-%2B-PPO-or-On-Campus-or-Largest-Sum-Cycle

Q3) Maximum-Weight-Node -

https://leetcode.com/discuss/interview-question/2063862/Juspay-or-OA-or-SDE-intern-%2B-PPO-or-On-Campus-or-Maximum-Weight-Node

Round 2 Question :

https://leetcode.com/discuss/interview-question/3256916/Juspay-Tree-of-Space-logarithmic-Solution-(Hackathon-part-A)

Problem Description: Given an M-ary tree, the following three operations need to be performed:

Lock(id, user id) – this function locks the given node id and marks it locked by userid, if ancestors, descendants, or the node itself were not locked before.

Unlock(id, user id) – this function unlocks the given node id if it was locked by userid before.

Upgrade(id, user id) – upgrades the lock to the node id if all the locked descendants were locked by the same userid. This function fails if any locked descendant node was locked by a different userid.

Round 3 Question :

https://leetcode.com/discuss/interview-question/3261455/Juspay-Tree-of-space-Hackathon-part-B-complete-discussion

Study Materials with which I learned :
Computer Networks :

- https://www.youtube.com/watch?v=IPvYjXCsTg8

- https://www.geeksforgeeks.org/computer-network-tutorials/

Operating System :
- https://www.youtube.com/watch?v=vBURTt97EkA&list=PLBlnK6fEyqRiVhbXDGLXDk_O QAeuVcp2O
- https://www.geeksforgeeks.org/operating-systems/

DSA :
- https://takeuforward.org/strivers-a2z-dsa-course/strivers-a2z-dsa-course-sheet-2

In the above website itself i referred Trees and Graphs well.

Concurrency and Multithreading :
- **JAVA :**
  https://www.youtube.com/watch?v=mTGdtC9f4EU&list=PLL8woMHwr36EDxjUoCzboZje dsnhLP1j4
- **C++ :**
  https://www.youtube.com/watch?v=TPVH_coGAQs&list=PLk6CEY9XxSIAeK-EAh3hB4f gNvYkYmghp

It was one of the best experiences I had when I started learning for Juspay during our college's training program. Before that, I didn't know anything about computer networks, operating systems, and system design. In almost 15 days, I was able to cover all the topics and got the offer. So, you can also do it with the hope that you can learn deeper with a small time constraint. It's purely dependent on your focus and interest in getting placed in a good company. All the very best!!!