# Microsoft Interview | Set 34 (On-Campus)

Difficulty Level :\nEasy

• Last Updated :\n13 Sep, 2014

## 1st Round (Online)

15mcg 30mins \xe2\x80\x93 Most from C/C++. Few from OS

# 2<sup>nd</sup> Round: Coding Online (1 hour)

1st quest: <a href="https://www.geeksforgeeks.org/intersection-of-two-sorted-linked-lists/">https://www.geeksforgeeks.org/intersection-of-two-sorted-linked-lists/</a>

2nd quest: <a href="https://www.geeksforgeeks.org/check-for-balanced-parentheses-in-an-expression/">https://www.geeksforgeeks.org/check-for-balanced-parentheses-in-an-expression/</a>

# 13th august:

Top 20 students were selected for the next round. 8 had direct interviews while the rest 12 of us had another elimination round. The selection was done using the total score of both the online rounds

#### Elimination Round: Pen and Paper (20 mins)

Write the code implementing a queue using stacks.

## Interview 1: Technical (1 hour 15 mins)

The interviews were on in parallel and when I went for my 1<sup>st</sup> interviews some were already rejected while some even had their 2<sup>nd</sup> and 3<sup>rd</sup> interview rounds.

Asked about myself and my history followed by technical questions.

- 1. Suppose you have an array of elements which has duplicates except 1 number, ex. 1,2,3,4,3,2,1. You need write a pseudo code to find the unique number. Here ans \xe2\x80\x93 4. Also asked the complexity of my code which was O (n).
- 2. Tell the pseudo code to reverse a linked list.

I started to make the logic for O (n) but he said it might not be possible to do it in 1 iteration so not an issue. But I gave him the logic of O (n) and 1 iteration.

- 3. You have a matrix a[m] [n]. Transpose it into a matrix b[n] [m] in minimum iterations. I could think of m\*n/4 at most.
- 4. Questions on OOPS
- 5. Difference between OOPS and C
- 6. Difference between abstract classes and interface. Gave cases for me to tell the error or right ans in abstract classes.
- 7. DBMS: 5th largest salary of employees from a given table. I answered using rownum and then limit but he wanted a general ans. So all I could tell was using nested query.
- 8. Puzzles:

\xe2\x80\x93 There are 25 horses. Only 5 can run together at most. You have no timer. Min no. of runs reqd. to find the fastest horse.

\xe2\x80\x93 There are 4 people who want to cross a bridge. Minimum time they take to cross a

bridge is 1, 2, 7 and 11 respectively. There is only 1 torch and at most 2 people can cross a bridge at a time. But no one can cross the bridge without torch (Someone has to come back to give the torch). Find minimum time in which all 4 cross the bridge.

 $2^{nd}$  puzzle I  $1^{st}$  answered 22 but then corrected myself and answered 18 (1 and 2 cross. 1 comes back. 7 and 11 cross. 2 comes back. 1 and 2 cross \xe2\x80\x93 total time 2 + 1 + 11 + 2 + 2 = 18).

I was informed 5 minutes after my interview to be ready for the 2<sup>nd</sup> Round.

### Interview 2: Technical (20 mins)

Was asked about self, my project on cloud computing and questions related to it.

1 technical question.

Write a code to delete x elements after 1st n elements.

I wrote the code but missed the case where n = 0. So as he was checking the code I told him the case I had missed. He was confused if the code would work if there were less than n + x elements but I showed him that it would.

Was a short interview compared to others and was scared of being rejected but finally was called for the hr interview in sometime.

### Interview 3: HR (20 mins)

He first told me about the code I had written in the elimination round that it was the best code he got in the day. Following it were typical hr questions.

Tell about myself, my strengths and weaknesses. Why do I want to join Microsoft?

Why should Microsoft hire me?

About my college project and my summer internship project.

What would you like to improve in yourself 3 years from now (other than knowledge)?

Finally after the whole day of interview I was selected with 1 more guy from our college. Thanks to <u>geeksforgeeks.org</u> and <u>geeksquiz.com</u> for helping me prepare and crack the interview.

#### **Important Points:**

- 1. Always show a lot of energy in the interview.
- 2. Microsoft gives great importance to values and ethics so stick to them in your questions.
- 3. Speak out whatever approach you think in the interview. The interviewers do not want to sit idle. They love to understand how you think.
- 4. Do try showing company\xe2\x80\x99s goals as yours.

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#### **All Practice Problems for Microsoft!**

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