# Microsoft Interview Experience | Set 57 (For SDE)

Difficulty Level :\n<u>Expert</u>

Last Updated :\n08 Jul, 2015

# Round 1 (45 mins)

- 1) There was a detailed discussion on the project i did at Microsoft and also over the two projects mentioned in my resume.
- 2) There is a Bing log file containing the domain names. Design a cache memory system for faster dns look ups.( i suggested a Trie and a min heap based solution). I was asked to make it space efficient. (I replaced trie with map)
- 3)There is a turn based 2 player game in which there are 9 pins and each player is allowed to pick either 1, 2 or 3 pins only. The last player to pick the pin is the loser. Design winning strategy for such a game.
- 4) Generalize the above solution for n pins.

## Round 2 (45 mins)

- 1)There is a large file with system memory limitations. How will you store it (i suggested Distributed system) and how will u work on it.
- 2)Suppose the large file contains name, address, Dob, pan no etc as attributes. Design class interface for such a system. The question was re framed again with more conditions which i am unable to recall now.
- 2) There was a detailed discussion over how the stl map data structure is implemented.
- 3) Discussion over hashing and collision resolution techniques.

### Round 3(40 mins)

Discussion over my project followed by these questions:

- 1) Write the code to delete nodes in a binary tree which don\xe2\x80\x99t lie in any path from root to leaf with sum>=k.
- 2)There is a rotated and pivoted array. Write the code to determine how many times the array is rotated. (i did it in O(log n)).

All thanks to geeks4geeks for helping me prepare for technical interviews.

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