# **Amazon SDE II Interview Experience**

Last Updated :\n02 Dec, 2019

## Round 1:

Ques 1: Rearrange a LinkedList \xe2\x80\x93

Before : a->x->b->y->c->z After : a->b->c->z->y->x

1st intuition \xe2\x80\x93 Maintain two list for a->b->c and x->y->z respectively.

Reverse the second list and join it at the end of the first list.

Interviewer: Reversing of LL is not allowed.

2nd intuition \xe2\x80\x93 Use of Stack, while traversing the second list which is to be reversed, maintain the elements in a stack and then join them.

Interview: Use of stack is not allowed.

3rd intuition \xe2\x80\x93 Manipulate the pointers in one-go!!!

Ques 2: Find Diameter of a Tree

#### Round 2:

Ques 1: Given an array of numbers and a window size, k. Find the max element in each window while traversing the array.

Ques 2:\xc2\xa0k-Reverse a LinkedList

Leadership Principle Question

#### Round 3:

Design a Library Management System.

Extended:

Add the concept of Reservations.

Provide the minimum time to wait for a Student before he can be issued a Book.

e.g 3 Books already issued and new student is 37th in gueue for the issue.

Leadership Principle Question

### Round 4:

Leadership Principle Question

Ques 1: Design a Plugable Cache, i.e. at any time it may be changed from LRU to MFU or LFU, etc.

LRU \xe2\x80\x93 Least Recently Used

MFU \xe2\x80\x93 Most Frequently Used

Ques 2: Multiple Matrices

Input : [[a, b, c]

[d, e, f] [x, y, z]]

# of Rows and Columns can vary.

Output: adx, ady, adz, bdx, \xe2\x80\xa6. cfy, cfz

Result: Rejected

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