

## Stack Questions

### Question 1 :

#### Palindrome Linked List

We have a singly linked list of characters, write a function that returns true if the given list is a palindrome, else false.



**Input :** A->B->C->B->A

**Output :** Yes It is Palindrome

### Question 2 :

#### Simplify Path

We have an absolute path for a file (Unix-style), simplify it. Note that absolute path always begin with '/' ( root directory ), a dot in path represent current directory and double dot represents parent directory.

**Sample Input 1 :** /apnacollege/

**Sample Output 1 :** /apnacollege

**Sample Input 1 :** /a/..

**Sample Output 1 :** /

### Question 3 :

#### Decode a string

We have an encoded string s and the task is to decode it. The pattern in which the strings are encoded is as follows.

**Sample Input 1 :** 2[cv]

**Sample Output 1 :** cvcv

**Sample Input 2 :** 3[b2[v]]L

**Sample Output 2 :** bvvbvvbvv

### Question 4 :

### Trapping Rain Water

We have an array of N non-negative integers `arr[]` representing an elevation map where the width of each bar is 1, compute how much water it is able to trap after raining.

Note: We have already solved this Question using Arrays but you have to now solve this using a Stack.



**Sample Input 1 :** [ 7 0 4 2 5 0 6 4 0 6 ]

**Sample Output 1 :** 25