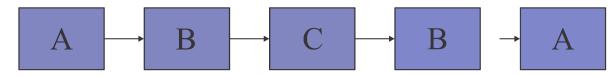


# **Stack Questions**

## 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 :  $A \rightarrow B \rightarrow C \rightarrow B \rightarrow A$ 

**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