


PROBLEM

Delete Middle of Linked List



Easy Accuracy: 54.52% Submissions: 120K+ Points: 2

Matrix Partners India: Exclusive Job-A-Thon | Apply to 15+ Companies via 1 Hiring Challenge | Starting from 29th April onwards 

Given a singly linked list, delete **middle** of the linked list. For example, if given linked list is 1->2->3->4->5 then linked list should be modified to 1->2->4->5.

If there are **even** nodes, then there would be **two middle** nodes, we need to delete the **second middle element**. For example, if given linked list is 1->2->3->4->5->6 then it should be modified to 1->2->3->5->6.

If the input linked list has **single** node, then it should return **NULL**.

Example 1:

Input:

LinkedList: 1->2->3->4->5

Output:

1 2 4 5

Example 2:

Input:

LinkedList: 2->4->6->7->5->1

Output:

2 4 6 5 1

Your Task:

The task is to complete the function **deleteMid()** which takes head of the linkedlist and return head of the linkedlist with **middle element deleted** from the linked list. If the linked list is **empty** or contains **single** element then it should return **NULL**.

Expected Time Complexity: $O(n)$.

Expected Auxiliary Space: $O(1)$.

Constraints:

$1 \leq n \leq 10^5$

$1 \leq \text{value}[i] \leq 10^9$

CODE

#User function Template for python3

'''

class Node:

def __init__(self, data):

self.data = data

self.next = None

'''

class Solution:

def deleteMid(self, head):

c = 0

ptr = head

while ptr!= None:

ptr = ptr.next

c = c+1

temp = head

if c ==1:

head = head.next

return head

else:

for i in range(c//2):

prev = temp

temp = temp.next

if i ==c//2-1:

prev.next = temp.next

return head

'''

head: head of given linkedList

return: head of resultant llist

'''

#code here