January 2023 CSE 106
Online: Array List & Linked List

Time: 40 minutes

Subsections A1 & A2

You are given a linked list of integers "$L : l_0 \to l_1 \to l_2 \to ... \to l_{n-1} \to l_n$". You have to reorder the list to be "$L : l_0 \to l_n \to l_1 \to l_{n-1} \to l_2 \to l_{n-2} \to ...$".

Input

First take m as input, where the linked list would contain a total of $m = n + 1$ elements.

Next, take m space-separated integers l_0, l_1, l_2, ..., l_{n-1}, l_n, denoting the elements of the linked list in order.

Output

Print the reordered list after modification.

See the Sample I/O for further clarification.

Sample I/O

Input	Output
4 1 2 3 4	1 4 2 3
5 6 9 1 7 3	6 3 9 7 1

Marks Distribution

Approach	Marks
Print the reordered list	70%
Modify the original linked list. You are only allowed to change the `next` pointers (i.e. the pointer that links to other nodes) of the nodes, but you cannot change the original values stored in the nodes	100%

Please note that any usage of the internet is strictly prohibited during the assignment. Usage of any unfair means will be duly punished.