143. Reorder List

Medium   🏷 Topics   🏢 Companies

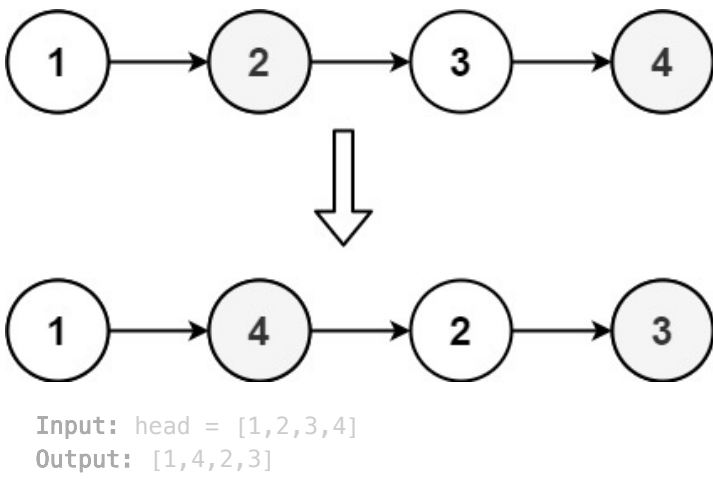You are given the head of a singly linked-list. The list can be represented as:

$L_0 \rightarrow L_1 \rightarrow \dots \rightarrow L_{n-1} \rightarrow L_n$
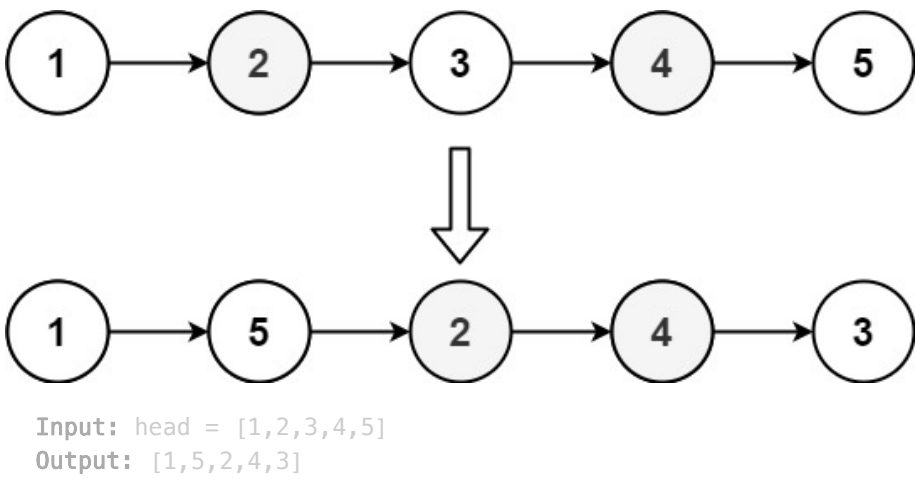
Reorder the list to be on the following form:

$L_0 \rightarrow L_n \rightarrow L_1 \rightarrow L_{n-1} \rightarrow L_2 \rightarrow L_{n-2} \rightarrow \dots$

You may not modify the values in the list's nodes. Only nodes themselves may be changed.

Example 1:


```
Input: head = [1,2,3,4]
Output: [1,4,2,3]
```

Example 2:


```
Input: head = [1,2,3,4,5]
Output: [1,5,2,4,3]
```

Constraints:

- The number of nodes in the list is in the range $[1, 5 * 10^4]$.
- $1 <= Node.val <= 1000$

Seen this question in a real interview before?   1/4

Yes   No

Accepted **825.7K**   Submissions **1.5M**   Acceptance Rate **55.8%**

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