

1265. Print Immutable Linked List in Reverse

Medium 502 91 Add to List Share

You are given an immutable linked list, print out all values of each node in reverse with the help of the following interface:

- `ImmutableListNode` : An interface of immutable linked list, you are given the head of the list.

You need to use the following functions to access the linked list (you **can't** access the `ImmutableListNode` directly):

- `ImmutableListNode.printValue()` : Print value of the current node.
- `ImmutableListNode.getNext()` : Return the next node.

The input is only given to initialize the linked list internally. You must solve this problem without modifying the linked list. In other words, you must operate the linked list using only the mentioned APIs.

Example 1:

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

Output: [4,3,2,1]

Example 2:

Input: head = [0,-4,-1,3,-5]

Output: [-5,3,-1,-4,0]

Example 3:

Input: head = [-2,0,6,4,4,-6]

Output: [-6,4,4,6,0,-2]

Constraints:

- The length of the linked list is between `[1, 1000]`.
- The value of each node in the linked list is between `[-1000, 1000]`.

Follow up:

Could you solve this problem in:

- Constant space complexity?
- Linear time complexity and less than linear space complexity?

Accepted 46,902 Submissions 49,755

Seen this question in a real interview before?

Yes No

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```
1  /**
2   * // This is the
3   * // ImmutableListNode's API
4   * // interface.
5   * // You should not
6   * // implement it, or speculate
7   * // about its implementation.
8   * class ImmutableListNode
9   * {
10  * public:
11  *     void printValue();
12  *     // print the value of the
13  *     // node.
14  *     ImmutableListNode*
15  *     getNext(); // return the
16  *     // next node.
17  * };
18  */
19
20 class Solution {
21 public:
22     void
23     printLinkedListInReverse(
24         ImmutableListNode* head) {
25         if(head == NULL)
26             return;
27
28         printLinkedListInReverse(
29             head->getNext());
30         head->printValue();
31     }
32 };
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```

NEW

Testcase Run Code Result Debugger

Accepted Runtime: 4 ms ?

Your input [-2,0,6,4,4,-6]

Output [-6,4,4,6,0,-2] Diff

Expected [-6,4,4,6,0,-2]

