

Problem List

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DescriptionEditorialSolutionsSubmissions

1265. Print Immutable Linked List in ReversePremiumSolved

MediumTopicsCompanies

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?

Seen this question in a real interview before? 1/5

YesNo

Accepted 57.4K | Submissions 61K | Acceptance Rate 94.0%

TopicsCompaniesDiscussion (11)

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</> Code

Python3Auto

```
1 # """
2 # This is the ImmutableListNode's API interface.
3 # You should not implement it, or speculate about its implementation.
4 # """
5 # class ImmutableListNode:
6 #     def printValue(self) -> None: # print the value of this node.
7 #     def getNext(self) -> 'ImmutableListNode': # return the next node.
8
9 class Solution:
10     def printLinkedListInReverse(self, head: 'ImmutableListNode') -> None:
11
12         def recurse(node):
13
14             if not node:
15                 return
16
17             recurse(ImmutableListNode.getNext(node))
18             ImmutableListNode.printValue(node)
19
20         recurse(head)
21
```

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TestcaseTest Result

AcceptedRuntime: 49 ms

Case 1Case 2Case 3

Input

[1, 2, 3, 4]

Output