

LintCode 参考程序

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目录

第一章 入门 (Naive)	5
1.1 Problem ID: 228 Middle of Linked List	6
1.1.1 Description	6
1.1.2 Example	6
1.1.3 Code	6
第二章 容易 (Easy)	9
第三章 中等 (Medium)	11
第四章 困难 (Hard)	13
第五章 超难 (Super)	15

第一章 入门 (Naive)

1.1 Problem ID: 228 Middle of Linked List

1.1.1 Description

Find the middle node of a linked list.

1.1.2 Example

Given 1->2->3, return the node with value 2.

Given 1->2, return the node with value 1.

1.1.3 Code

C++

```
1  /**
2   * Definition of ListNode
3   * class ListNode {
4   * public:
5   *     int val;
6   *     ListNode *next;
7   *     ListNode(int val) {
8   *         this->val = val;
9   *         this->next = NULL;
10  *     }
11  * }
12  */
13  class Solution{
14  public:
15      /**
16       * @param head: the head of linked list.
17       * @return: a middle node of the linked list
18       */
19      ListNode *middleNode(ListNode *head) {
20          // Write your code here
21          if(head == NULL){
22              return NULL;
23          }
24          ListNode *fast = head;
25          ListNode *slow = head;
26          while(fast->next != NULL && fast->next->next != NULL){
27              slow = slow->next;
28              fast = fast->next->next;
29          }
30          return slow;
31      }
32  };
```

Python

```
1  """ """
2  Definition of ListNode
3  class ListNode(object):
4
5      def __init__(self, val, next=None):
6          self.val = val
7          self.next = next
8  """ """
9
10 class Solution:
11     # @param head: the head of linked list.
12     # @return: a middle node of the linked list
13     def middleNode(self, head):
14         # Write your code here
15         if head is None:
16             return None
17         slow = head;
18         fast = head;
19         while fast.next is not None and fast.next.next is not None:
20             slow = slow.next
21             fast = fast.next.next
22         return slow
```


第二章 容易 (Easy)

第三章 中等 (Medium)

第四章 困难 (Hard)

第五章 超难 (Super)