

Given the head of a singly linked list, return *the middle node of the linked list*.

If there are two middle nodes, return the second middle node.

Example 1:

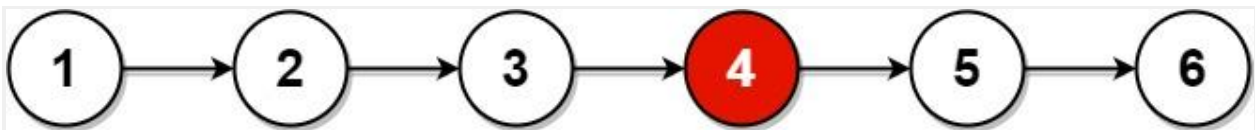


Input: head = [1,2,3,4,5]

Output: [3,4,5]

Explanation: The middle node of the list is node 3.

Example 2:



Input: head = [1,2,3,4,5,6]

Output: [4,5,6]

Explanation: Since the list has two middle nodes with values 3 and 4, we return the second one.

Constraints:

- The number of nodes in the list is in the range [1, 100].
- $1 \leq \text{Node.val} \leq 100$

Solution:

```
class Solution {
    public ListNode middleNode(ListNode head) {
        ListNode primary=head;
        ListNode secondary=head;

        while(primary!=null && primary.next!=null){
            primary=primary.next.next;
            secondary=secondary.next;
        }
        return secondary;
    }
}
```

