

Partition List

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Question

Solution

Total Accepted: **49794** Total Submissions: **179115** Difficulty: **Medium**

Given a linked list and a value x , partition it such that all nodes less than x come before nodes greater than or equal to x .

You should preserve the original relative order of the nodes in each of the two partitions.

For example,

Given $1 \rightarrow 4 \rightarrow 3 \rightarrow 2 \rightarrow 5 \rightarrow 2$ and $x = 3$,

return $1 \rightarrow 2 \rightarrow 2 \rightarrow 4 \rightarrow 3 \rightarrow 5$.

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Python ▼



```
1 # Definition for singly-linked list.
2 # class ListNode(object):
3 #     def __init__(self, x):
4 #         self.val = x
5 #         self.next = None
6
7 class Solution(object):
8     def partition(self, head, x):
9         """
10         :type head: ListNode
11         :type x: int
12         :rtype: ListNode
13         """
14         node = ListNode(0)
15         node.next = head
16         l = node
17         while l.next != None and l.next.val < x: l = l.next
18         r = l
19         while r.next != None:
20             if r.next.val < x:
21                 tmp = r.next
22                 r.next = tmp.next
23                 tmp.next = l.next
```

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```
24         l.next = tmp
25         l = l.next
26     else: r = r.next
```

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