

Day 15: Linked List



Problem Submissions Leaderboard Discussions Editorial Tutorial

Objective

Today we're working with Linked Lists. Check out the Tutorial tab for learning materials and an instructional video!

A Node class is provided for you in the editor. A Node object has an integer data field, **data**, and a Node instance pointer, **next**, pointing to another node (i.e.: the next node in a list).

A Node insert function is also declared in your editor. It has two parameters: a pointer, **head**, pointing to the first node of a linked list, and an integer **data** value that must be added to the end of the list as a new Node object.

Task

Complete the *insert* function in your editor so that it creates a new *Node* (pass *data* as the *Node* constructor argument) and inserts it at the tail of the linked list referenced by the *head* parameter. Once the new node is added, return the reference to the *head* node.

Note: If the *head* argument passed to the *insert* function is *null*, then the initial list is empty.

Input Format

The insert function has 2 parameters: a pointer to a Node named head, and an integer value, data.

The constructor for Node has 1 parameter: an integer value for the data field.

You do not need to read anything from stdin.

Output Format

Your insert function should return a reference to the **head** node of the linked list.

Sample Input

The following input is handled for you by the locked code in the editor:

The first line contains T, the number of test cases.

The $m{T}$ subsequent lines of test cases each contain an integer to be inserted at the list's tail.

Sample Output

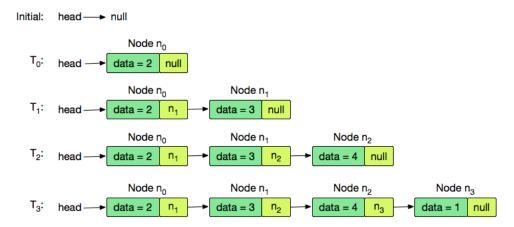
The locked code in your editor prints the ordered data values for each element in your list as a single line of space-separated integers:

2 3 4 1

Explanation

T=4, so the locked code in the editor will be inserting 4 nodes.

The list is initially empty, so *head* is null; accounting for this, our code returns a new node containing the data value **2** as the *head* of our list. We then create and insert nodes **3**, **4**, and **1** at the tail of our list. The resulting list returned by the last call to *insert* is [**2**, **3**, **4**, **1**], so the printed output is 2 3 4 1.



Submissions: 6904

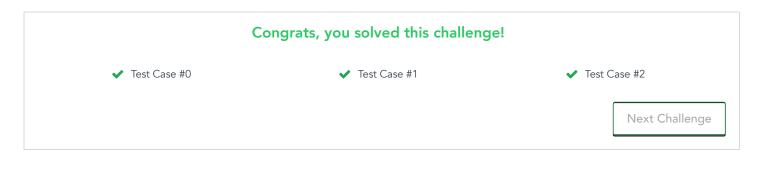
Max Score: 30

Difficulty: Easy

More

```
Current Buffer (saved locally, editable) & 🗘
                                                                                      Python 2
                                                                                                                      Ö
 1 ▶ class Node: ↔ []
 5 ▼class Solution:
        def display(self,head):
 6 ▼
 7
            current = head
 8 🕶
            while current:
 9
                print current.data,
10
                current = current.next
11
        def insert(self,head,data):
12 ▼
        #Complete this method
13
            curr_node=Node(data)
14
            if head is None:
15
                 head=curr_node
16
17
                 current=head
18
                 while current.next is not None:
19
                     current=current.next
20
                current.next=curr node
21
            return head
22
23
24
25
    mylist= Solution()
26
   T=int(input())
   head=None
2.7
28
  ▼for i in range(T):
        data=int(input())
29
30
        head=mylist.insert(head,data)
31
   mylist.display(head);
                                                                                                           Line: 21 Col: 20
```

Run Code Submit Code



Copyright © 2016 HackerRank. All Rights Reserved

Join us on IRC at #hackerrank on freenode for hugs or bugs.

Contest Calendar | Blog | Scoring | Environment | FAQ | About Us | Support | Careers | Terms Of Service | Privacy Policy | Request a Feature