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HackerRank
PRACTICE
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LEADERBOARD

Practice > Data Structures > Queues > Queue using Two Stacks

34 more points to get your next star!

Rank: 1342808 | Points: 66/100

Your Queue using Two Stacks submission got 30.00 points.

You are now 34 points away from the 2nd star for your problem solving badge.

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Problem
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A **queue** is an abstract data type that maintains the order in which elements were added to it, allowing the oldest elements to be removed from the front and new elements to be added to the rear. This is called a First-in-First-Out (FIFO) data structure because the first element added to the queue (i.e., the one that has been waiting the longest) is always the first one to be removed.

A basic queue has the following operations:

- Enqueue: add a new element to the end of the queue.
- Dequeue: remove the element from the front of the queue and return it.

In this challenge, you must first implement a queue using two stacks. Then process *q* queries, where each query is one of the

Author
saikiran9194

Difficulty
Medium

Max Score
30

Submitted By
47932

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Change Theme
Python 3

```

1 # Enter your code here. Read input from STDIN. Print output to STDOUT
2 #stackremove 78 60
3 user_input = int(input())
4 stackinsert = []
5 stackremove = []
6 for i in range(user_input):
7     new_lst = list(input().split())
8     #enqueue
9     if new_lst[0]=="1":
10        stackinsert.append(new_lst[1])
11
12    #dequeue
13    elif new_lst[0]=="2":
14        if not stackremove:
15            while stackinsert:
16                stackremove.append(stackinsert.pop())
17            stackremove.pop()
18
19        #printing the element appearing first
20
21    else:
22        if not stackremove:
23            while stackinsert:
24                stackremove.append(stackinsert.pop())
25        print(stackremove[-1])

```

Line: 2 Col: 19

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You have earned 30.00 points!  
You are now 34 points away from the 2nd star for your problem solving badge.

51% 66/100

**Congratulations**  
You solved this challenge. Would you like to challenge your friends?

Next Challenge

Test case 0  
Test case 1  
Test case 2  
Test case 3  
Test case 4  
Test case 5  
Test case 6

Compiler Message  
Success

Input (stdin) Download

1	10
2	1 42
3	2
4	1 14
5	3
6	1 28
7	3
8	1 60
9	1 78

Activate Windows  
Go to Settings to activate Windows.

The code:

```
# Enter your code here. Read input from STDIN. Print output to
STDOUT
#stackremove 78 60
user_input = int(input())
stackinsert = []
stackremove = []
for i in range(user_input):
    new_lst = list(input().split())
    #enqueue
    if new_lst[0]=="1":
        stackinsert.append(new_lst[1])

    #dequeue
    elif new_lst[0]=="2":
        if not stackremove:
            while stackinsert:
                stackremove.append(stackinsert.pop())
        stackremove.pop()

    #printing the element appearing first
```

```
else:
    if not stackremove:
        while stackinsert:
            stackremove.append(stackinsert.pop())
    print(stackremove[-1])
```