

Assignment #3 Linked List

Problem 1. Search Bar

Score: 40 points

Due: Oct 28, 2020

You want to add a search bar for your new app project. Users can enter and edit a single-line string in the search bar.



Depending on the input from the user, the search bar may perform different operations. It should support following three operations.

- Move the cursor left or right by one character.
- Add one character at the position of the cursor.
- Erase one character to the left of the cursor.

Input

The first line contains a single integer N ($1 \leq N \leq 10^6$) — the number of operations.

Each of the next N lines describes one of the following operations.

- **move x**
If x is the character `l`, moves the cursor left by one character, if it is `r`, moves the cursor right by one character. If the cursor is at the end of the search bar and cannot be moved, do nothing.
- **add x**
Add a character x at the cursor. After that, the cursor is positioned to the right of the character. Only uppercase and lowercase latin alphabet (`A-Z`, `a-z`) or single space (`_` (underscore)) will be given as a space character are given as input x .
- **erase**
Erase one character to the left of the cursor. If there is no character to the left of the cursor, do nothing.

Output

Print the string in the search bar after all of N operations are done.

Sample Inputs

Sample Input 1

```
10
add b
add a
add r
move l
move l
move l
add f
add o
add o
add _
```

Sample Output 1

```
foo bar
```

Sample Input 2

```
21
add I
add _
add h
add a
add t
add e
erase
erase
erase
erase
add l
add i
add k
add e
add _
add c
add o
add d
add i
add n
add g
```

Sample Output 2

```
I like coding
```

Grading Policy

Submissions will be graded based on the number of test cases passed. There are execution time and memory limitations, so be sure to write efficient code. Submit your code on goormEDU (<https://skku.goorm.io>).

For late submission, grades will be deducted by 25% per late day. That is, after 4 days, the grade will be zero.

The assignment should be done by yourself. We use plagiarism detection tool on all submissions.

If you have any questions, leave them in the spreadsheet or send an email to the TA. Please do not use i-Campus message. (TA Youngjae Lee: yjlee4154@gmail.com)

QA Spreadsheet Link

<https://docs.google.com/spreadsheets/d/1RDbEqFMS1FU0-KHcqX3BvhMHNJI0Y-wp0PXAmE-zdQU/edit?usp=sharing>