January Circuits '17

LIVE

Jan 20, 2017, 09:00 PM IST - Jan 28, 2017, 09:00 PM IST

Convoluted Operations

Max. Marks: 100

Mishki is quite interested in playing games, and recently she found an empty stack. Now she wants to perform 3 types of operations on the stack:

$1)$ 1 A : push element A in the stack.
$2)$ 0 : pop one element from stack.
$3)$ 2 K X : find how many elements were less than X present in the stack, after performing K^{th} operation on the stack.

Can you help her in performing the above operations ?

Input:
The first line contains an integer N, denoting the number of operations.
Next N line contains, any of the 3 types of operations mentioned above, where i^{th} line contains the i^{th} operation.

Output
Print the required answer for each of the 3^{rd} type of operation, in new line.

Constraints:
$1 \leq N \leq 5 \times 10^5$
$0 \leq A, X \leq 10^9$
$1 \leq K \leq N$

Notes:
1) No pop operation will be given for an empty stack.
2) Let's say, you are performing i^{th} operation on the stack and it is of 3^{rd} type, then the given K will always be less than i.
3) There will be at least one 3^{rd} type of operation, in the input.

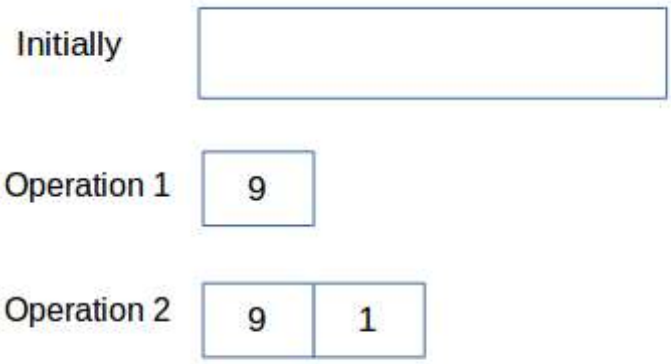
SAMPLE INPUT

```
7
1 9
1 1
2 2 10
1 2
2 4 5
0
2 6 5
```

SAMPLE OUTPUT

```
2
2
1
```


Explanation



In 3^{rd} operation you need to find the values present in the stack which were less than 10 , after performing 2^{nd} operation. So the answer is 2.

In 5^{th} operation you need to find the values present in the stack which were less than 5 , after performing 4^{th} operation. So the answer is 2.

Operation 6	9	1

In 7^{th} operation you need to find the values present in the stack which were less than 5 , after performing 6^{th} operation. So the answer is 1.

Time Limit:	1.0 sec(s) for each input file.
Memory Limit:	256 MB
Source Limit:	1024 KB
Marking Scheme:	Marks are awarded if any testcase passes.
Allowed Languages:	C, C++, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, R(RScript), Racket, Ruby, Rust, Scala, Scala 2.11.8, Swift, Visual Basic

CODE EDITOR

Enter your code or Upload your code as file. Save C (gcc 4.8.4)

```
1  #include <stdio.h>
2
3  int main()
4  {
5      printf("Hello World!\n");
6      return 0;
7  }
8
```

1:1

Provide custom input

COMPILE & TEST SUBMIT

Press Ctrl-space for autocomplete suggestions. POWERED BY codetable

Tip: You can submit any number of times you want. Your best submission is considered for computing total score.

LIVE EVENTS 5

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