

About

- 1 x : Insert number x
- 2 : Remove an element with smallest value in the heap. If the heap is already empty, ignore this command.
- 3 : Report the smallest number in the heap. If the heap is already empty, print "EMPTY" (without quotation mark).

Input

The first line contains an integer q , being the number of operations.

The following q lines are the operations described in the problem statements.

Restrictions

- $1 \leq q \leq 2 \cdot 10^6$
- $-10^9 \leq x \leq 10^9$

Output

For each query with type 3, print the answer in one line.

Sample Input 1

```
11
1 8
1 7
3
1 4
3
2
2
3
2
2
3
```

Sample Output 1

```
7
4
8
EMPTY
```

Submissions

Rankings

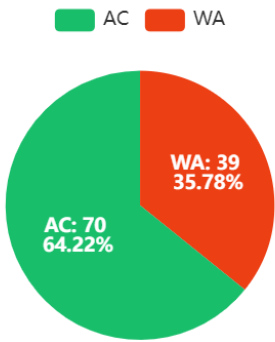
View Contest

Information

ID	1
Time Limit	2000MS
Memory Limit	256MB
IO Mode	Standard IO
Created By	ta_redleaf
Level	Hidden
Score	100
Tags	Show

Statistic

Details



Language: C++ Theme: Solarized Light



1

You have solved the problem

Submit for Sample Test

Submit

Contest has ended

Sample Test Input

Sample Test Output

11
1 8
1 7
3
1 4
3
2
2
3
2
2
3