




[Description](#)[My Submissions](#)[Hints/Editorial](#)[AC Submissions](#)[My Notes \(0\)](#)





Snapshot Array





? Ask Doubt

 Time-Limit: 1 sec

 Score: 0/100

Difficulty:    

 Memory: 256 MB

 Accepted Submissions: 100

Relevant For:

AZ-201

Description

Implement a **SnapshotArray** that supports the following interface:

- SnapshotArray(int length)** initializes an array-like data structure with the given length. Initially, each element equals 0.
- void set(index, val)** sets the element at the given index to be equal to val.
- int snap()** takes a snapshot of the array and returns the snap_id: the total number of times we called snap() minus 1.
- int get(index, snap_id)** returns the value at the given index, at the time we took the snapshot with the given snap_id.

Input Format

The first line of input contains **Q, L** - the number of queries and the length of the array.
Next, **Q** lines contain queries of the types mentioned in the problem statement.

Constraints

$1 \leq Q \leq 10^5$
 $1 \leq L \leq 10^9$
 $0 \leq val \leq 10^9$
 $0 \leq snap_id < (\text{the total number of times we call snap()})$
 $0 \leq index < L$

Sample Input 1

Copy

```
4 3
set 0 5
snap
set 0 6
get 0 0
```

Sample Output 1

Copy

```
0
5
```

C++14[GCC] ▾



Submit

```
1  ▾  #include <bits/stdc++.h>
2      using namespace std;
3
4      class SnapshotArray
```

