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

**Example 1:**

**Input:** ["SnapshotArray","set","snap","set","get"]

[[3],[0,5],[],[0,6],[0,0]]

**Output:** [null,null,0,null,5]

**Explanation:**

SnapshotArray snapshotArr = new SnapshotArray(3); // set the length to be 3

snapshotArr.set(0,5); // Set array[0] = 5

snapshotArr.snap(); // Take a snapshot, return snap\_id = 0

snapshotArr.set(0,6);

snapshotArr.get(0,0); // Get the value of array[0] with snap\_id = 0, return 5

**Constraints:**

* 1 <= length <= 50000
* At most 50000 calls will be made to set, snap, and get.
* 0 <= index < length
* 0 <= snap\_id < (the total number of times we call snap())
* 0 <= val <= 10^9