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Output Format:

Print N integers. i^{th} element should be the *MEX* of the array prefix till i

Constraints:

$$1 \leq N \leq 2 * 10^5$$

$$0 \leq arr[i] \leq 2 * 10^5$$

Sample Input	Sample Output
5 1 0 5 5 3	0 2 2 2 2

Time Limit: 1

Memory Limit: 256

Source Limit:

Explanation

For first test case mex of first index is 0. As it is not present in array

mex of second index is 2 as 0 and 1 is present in array.

mex of 3rd, 4th and 5th index is 2.

Contributors:

[D](#) Deepu Kumar

[G](#) Geetarth Kaustav

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Python 3 (python 3.10)



```
1 def solve():
2     n = int(input())
3     arr = list(map(int, input().split()))
4     v = [0] * 1000000
5     ans = 0
6
7     for a in arr:
8         v[a] = 1
9         while v[ans] == 1:
10             ans += 1
11         print(ans, end=" ")
12     print()
13
14 if __name__ == "__main__":
15     solve()
16
```



14:27 vscode

[Test against custom input](#)[Compile & Test code](#)[Submit code](#)

Submission ID: 104431033

RESULT: Accepted

[Refer judge environment](#)

Score	Time (sec)	Memory (KiB)	Language
0	1.22188	26224	Python 3