Mock CCC '21 S3 - Lexicographically Smallest Permutation Subsequence

Given a list of N positive integers, none larger than K, compute the lexicographically smallest permutation of the first K positive integers that is a subsequence of the list.

Constraints

$1 \leq K \leq N \leq 2 \cdot 10^5$

Each integer from 1 to K appears at least once in the list.

Input Specification

The first line contains two space-separated integers N and K. Each of the next N lines contains a single integer, the integers of the list in order.

Output Specification

Output K space-separated integers, the lexicographically smallest permutation that is a subsequence.

Sample Input

```
6 3
3
2
1
3
1
3
```

Sample Output

```
2 1 3
```