Shuffle Me Again

ZPRAC-16-17-Lab5

[30 points]

A permutation of size N is defined as an array of N elements containing an ordering of the first N natural numbers eg: (3, 1, 2) is a permutation of size 3.
Applying a permutation to a target array means permuting the target array elements according to the ordering of the permutation array. If the permutation array is P, and the target array is A. Then the array B obtained on applying P to A is such that B[i] = A[P[i]-1] for each i in {0, 1, ... N-1}.

Given an array of N characters we apply a series of K permutations on it. To specify each permutation N integers will be provided. You will have to print the modified array of N characters after all the permutations are done. Look at the example for more details.

Input Format:
The first line contains 2 space separated integers N, K.
The second line contains N Characters describing the initial array.
For each of the next K lines, N space separated integers are provided. These N integers specifies the permutation to be performed at that stage.

Output:
Print the modified character array after performing all the permutations.

Constraints:
3 ? N ? 200
1 ? K ? 200

Example:
Input:
5 2
wrtay
1 5 4 3 2
5 4 1 3 2

Output:
rtway

Explanation:
Initially the Character Array is : wrtay
After Doing the First Permutation: wyatr
After Doing the Second Permutation: rtway