

verify.cpp

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/* FILE: verify.cpp    last change: 2-Jul-2013    author: Romeo Rizzi
 * a partial verifier for problem permutGame
 */

#include <cassert>
#include <iostream>
#include <fstream>

using namespace std;

const int MAX_N = 10000;
const int MAX_K = 100;
int n, k;

int p[MAX_K][MAX_N+1]; // le k permutazioni di 1,2, ..., n che definiscono la configurazione del gioco

void swap( int &a, int &b ) { int tmp = a; a = b; b = tmp; }

bool isSorted(int n, int *p) {
    for(int i = 1; i < n; i++)
        if( p[i] > p[i+1] ) return false;
    return true;
}

int main() {
    ifstream fin("input.txt"); assert( fin );
    fin >> n >> k;
    for(int j = 0; j < k; j++)
        for(int i = 1; i <= n; i++)
            fin >> p[j][i];
    fin.close();

    ifstream fsol("output.txt"); assert( fsol );
    int num_sorted, num_mosse, swap1, swap2;
    fsol >> num_sorted >> num_mosse;
    for(int t = 1; t <= num_mosse; t++)
        for(int j = 0; j < k; j++) {
            fsol >> swap1 >> swap2;
            swap( p[j][swap1], p[j][swap2] );
        }
    fsol.close();

    for(int j = 0; j < k; j++)
        if( isSorted(n, p[j]) ) num_sorted--;

    if( num_sorted )
        cout << "difforme il numero di permutazioni ordinate " << endl;
    else
        cout << "OK" << endl;

    return 0;
}
```