

# Problem E. ID

**Time limit** 2000 ms

**Mem limit** 1048576 kB

## Problem Statement

In Republic of Atcoder, there are  $N$  prefectures, and a total of  $M$  cities that belong to those prefectures.

City  $i$  is established in year  $Y_i$  and belongs to Prefecture  $P_i$ .

You can assume that there are no multiple cities that are established in the same year.

It is decided to allocate a 12-digit ID number to each city.

If City  $i$  is the  $x$ -th established city among the cities that belong to Prefecture  $i$ , the first six digits of the ID number of City  $i$  is  $P_i$ , and the last six digits of the ID number is  $x$ .

Here, if  $P_i$  or  $x$  (or both) has less than six digits, zeros are added to the left until it has six digits.

Find the ID numbers for all the cities.

Note that there can be a prefecture with no cities.

## Constraints

- $1 \leq N \leq 10^5$
- $1 \leq M \leq 10^5$
- $1 \leq P_i \leq N$
- $1 \leq Y_i \leq 10^9$
- $Y_i$  are all different.
- All values in input are integers.

## Input

Input is given from Standard Input in the following format:

```
N M
P_1 Y_1
```

:  
 $P_M$   $Y_M$

Output

Print the ID numbers for all the cities, in ascending order of indices (City 1, City 2, ...).

Sample 1

Input	Output
2 3 1 32 2 63 1 12	000001000002 000002000001 000001000001

- As City 1 is the second established city among the cities that belong to Prefecture 1, its ID number is 000001000002.
- As City 2 is the first established city among the cities that belong to Prefecture 2, its ID number is 000002000001.
- As City 3 is the first established city among the cities that belong to Prefecture 1, its ID number is 000001000001.

Sample 2

Input	Output
2 3 2 55 2 77 2 99	000002000001 000002000002 000002000003