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Algorithms Lab

Exercise – *Maps*

In this exercise you are supposed to do some operations with maps.

Input   The first line of the input contains the number $t \leq 10$ of test cases. Each of the t test cases is described as follows.

- It starts with a line that contains an integer q, such that $0 \leq q \leq 10$.

- The following q lines each contain an integer and a string `a  b`, separated by a space, such that $0 \leq a \leq 1000$ and b is of length at most 10, in one of the following forms:

  - `0  b`: erase all entries with b as the key;

  - `x  b`, for $x > 0$: add an entry with key b and value x to the map.

- The following line contains a string s consisting of length at most 10.

Output   For each test case output all the values with the key s in a non-decreasing order, separated by a space. If there are no elements with the key s output 'Empty'.

Points   There is one group of test sets, worth 100 points in total.

Sample Input

```
1
5
3 algolab
0 algolab
1 algolab
2 algolab
5 system
algolab
```

Sample Output

```
1 2
```