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Shopee Code League 2022 - Qualification Round

LIVE INVITE ONLY ACCESS

Mar 19, 2022, 03:00 PM SGT - Mar 19, 2022, 06:00 PM SGT

INSTRUCTIONS PROBLEMS SUBMISSIONS LEADERBOARD JUDGE ANALYTICS

← Problems / Money Transfer

Money Transfer

Max. score: 100

SeaMoney has a feature to transfer money between users. Let's imagine a simple scenario.

 \emph{N} usernames—consisting of lowercase Latin characters—each starts with a balance \emph{b} . Amongst them, \emph{T} transactions happened, where user u_a transfers $m{x}$ amount of money to u_b . If $m{x}$ is larger than the u_a 's balance when the transaction happens, the transaction is automatically rejected.

Output the final balance of each user.

Input

The first line contains two numbers N and T ($1 \le N, T \le 1000$). Each of the next N following lines contain username u_i $(1 \le |u_i| \le 10)$ and integer b_i $(1 \le b_i \le 10^9)$, denoting the balance of user u_i . Following that are T lines, each containing two usernames u_a and u_b $(u_a \neq u_b)$ followed by an integer x $(1 \leq x \leq 10^9)$, denoting the amount of money transferred from $oldsymbol{u_a}$ to $oldsymbol{u_b}$.

Output

Output the balance of all users in alphabetical order.

% 🖆 SAMPLE INPUT 3 4 amir 10 brenda 10 charlie 10 amir brenda 5 brenda charlie 5 charlie amir 20 charlie amir 7

SAMPLE OUTPUT





amir 12 brenda 10



charlie 8 **Explanation** NA **Time Limit:** 1.0 sec(s) for each input file. **Memory Limit:** 256 MB **Source Limit:** 1024 KB

Allowed Languages: Bash, C, C++, C++14, C++17, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, Java 14, JavaScript(Rhino),

Python 3, Python 3.8, Racket, Ruby, Rust, Scala, Swift-4.1, Swift, TypeScript, Visual Basic

JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python,

Score is assigned when all the testcases pass.

CODE EDITOR

Marking Scheme:

```
Save
                                                         C++14 (g++ 10.3.0)
     /*
1
     // Sample code to perform I/O:
 2
 3
                                                 // Reading input from STDIN
 4
     cin >> name;
 5
     cout << "Hi, " << name << ".\n"; // Writing output to STDOUT</pre>
 6
 7
     // Warning: Printing unwanted or ill-formatted data to output will cause
     the test cases to fail
     */
8
9
     // Write your code here
10
11
```



