

A New Capital City

After a recent coup d'état, a country's new government wants to relocate the capital city to a more strategic location. The capital must be placed on one of the country's cities so that the average travel time to the other cities is minimized.

Input Format

The input contains multiple test cases.

A test case begins with two integers C and R indicating the country's number of cities and roads, respectively. Then follow C lines with the names of the cities. The name of each city has at most 10 letters. The following R lines specify each of the bidirectional roads. Each road is described by three integers: the identifiers of the two connected cities and the distance d between them. The identifiers for the cities range from 1 to C and correspond to their order in the input.

The input ends with EOF (end-of-file).

Constraints

- $1 \leq C \leq 25$
- $1 \leq d \leq 1500$

Output Format

For each test case, print a line with the name of the capital city. If two or more cities are equally valid to be the capital, print out the one that comes first in the input.

Sample Input 0

```
2 1
Olisippo
Cale
1 2 308
3 3
Bogota
Leticia
Tarapaca
1 2 1092
1 3 963
2 3 148
```

Sample Output 0

```
Olisippo
Tarapaca
```