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The Virtual Learning Environment for Computer Programming

Cruises X35804_en

To solve this problem you have to complete the code that you will find at the end of the statement. You have to replace each ??? with one or more lines of code. **Do not change anything else.** Download from the website of the problem the file code.cc with the code to be completed (click on the corresponding button ".CPP"), edit it and submit it to the judge.

A travel agency maintains a cruise ship catalog for its customers. For each cruise, we only store one code to indicate where the ship is going, the length of the trip and what is its price. Because the agency is very modest, it does not keep information on more than one cruise ship of each length. Codes and prices can be repeated.

The agency program allows us to do five different operations:

- n: It prints the number of stored cruises preceded by "num:".
- u $c \ell p$: It updates some cruise information. It stores that a cruise with code c, length ℓ , and price p is available. If there is already a cruise ship of that length, it updates its information.
- $q \ell$: This query prints the price of the cruise ship with length ℓ . If there is none, it prints -1.
- p: It shows a list of all available cruises, sorted by length. It prints a line by cruise, with code, length and price in that order. It prints a line with 10 dashes above, and a line with 10 asterisks below.
- s: It prints full details of the second shortest cruise. If there is no such cruise, it just prints "no".

Input

Input consists of several operations as indicated above. Codes are lowercase words. Lengths and prices are integer numbers between 1 and 10^9 .

Output

For each operation (except update operations), print the requested information.

```
Sample input

u valencia 10 2500

n
u greece 20 2500

p
s
u majorca 14 3000

p
n
s
q 10
q 14
u minorca 14 4000
q 14
```

Sample output

num: 0
----greece 20 2500

no
---majorca 14 3000

greece 20 2500

num: 2
greece 20 2500
-1
3000
4000
minorca 14 4000

```
#include <iostream>
#include <map>
using namespace std;
struct Info {
  string code;
  int price;
};
int main() {
  map < int, Info > M;
  char c;
  while (cin \gg c) {
    if (c == 'n') {
      ???
    else if (c == 'u') {
      string code;
      int length , price ;
      cin \gg code \gg length \gg price;
    else if (c == 'q') {
      int length;
      cin \gg length;
      ???
    else if (c == 'p') {
      cout \ll string(10, '-') \ll endl;
      \mathbf{cout} \ll \mathbf{string}(10, \ ' \star ') \ll \mathbf{endl};
    else \{ // c == 's' \}
      ???
    }
 }
```

Problem information

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