# Travel Map

Write a program that **collects** and **orders** information about traveling destinations.

As **input** you will receive strings until "END" command.

Each string will be in following format:

"Country name > Town name > Travel cost"

If you receive the same Town name twice, you should keep the cheapest offer. Have in mind that one Country may have several Towns to visit.

After you finish receiving input, you need to order the destinations by country name **alphabetically** and then for each country sort towns by travel cost in ascending order.

### Input

### The input comes in the form of commands in one of the formats specified above.

### Output

The output for each country is:

"{country} -> {townName1} -> {travelCost1} {townName2} -> {travelCost2} … {townNameN} -> {travelCostN}"

### Constraints

* The **number** of **elements** in the **input argument** will be in range **[1..100] inclusive**
* There **will** be **no invalid** **input**
* Travel cost will be integer and there will be no negative travel cost

### Examples

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| --- |
| **Input** |
| Bulgaria > Sofia > 500  Bulgaria > Sopot > 800  France > Paris > 2000  Albania > Tirana > 1000  Bulgaria > Sofia > 200  END |
| **Output** |
| Albania -> Tirana -> 1000  Bulgaria -> Sofia -> 200 Sopot -> 800  France -> Paris -> 2000 |