# Problem 3. Cinema

You have been tasked to manage and keep list of cinemas and movies that will be projected.

You will receive input lines in the following format:  
{cinemaName} <=> {movieName} : {priceForMovie}

The cinemaName and movieName will be **strings**. The priceForMovie will be an **floating-point number**. Your task is to store every **cinema** and the **movies** that will be projected.   
If you receive an existent cinema, you should **add** the **new** **movie** to it. If **cinemaName** or **movieName** are invalid **DO NOT** add them.

A single **cinema** may have **many movies** with the **same movieName** and the **same price**.

The **input sequence ends** when you **receive** the command “Done”.   
Then you must print all cinemas and their movies. The cinema must be printed by **alphabetic** **order**. Each **cinema’s movies** must be **ordered** by **price** in **descending order**.

### Input

* The input will come in the form of lines in the format specified above.
* The input sequence ends when you receive the command “Done”.

### Output

* **Cinema** and their **movies** must be printed in the following format:

“{cinamaName}  
 {movieName2} : {priceForMovie1}  
 {movieName2} : {priceForMovie2}

…”

* If you have received the **ending command**, and you are printing the **cinemas and movies with their price**, the order is – by price in **descending order**.
* If **cinemaName** is invalid print “**Invalid cinema name**”;
* If **movieName** is invalid print “**Invalid movie name**”;

### Constrains

* The movieName and cinemaName are strings which may contain any ASCII character   
  (except ‘-’, ‘>’).
* The **movieName** and **cinemaName** are **less 20 symbols**.
* The price will be **floating-point number**.
* Allowed time / memory: **100ms / 16 MB**.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| Cinema City <=> Fantastic Beasts : 12.50  Arene <=> Harry Potter : 20.60  Cinema City <=> Fantastic Beasts : 10.50  Done | - Arene  Harry Potter : 20.60  - Cinema City  Fantastic Beasts : 12.50  Fantastic Beasts : 10.50 |
| Arena <=> Black Pantern : 15.70  Saffron Screen <=> Iron Man : 12.30  Cinema in United Kingdoms <=> Venom : 45.70  Done | Invalid cinema name  - Arena  Black Pantern : 15.70  - Saffron Screen  Iron Man : 12.30 |