CSULA PROGFEST 2014
Problem 1
The Sorrows of Young Jack

Spring break is approaching. Jack, a huge film buff, is having trouble deciding what movies to watch during the break. Your job is to help Jack with his decisions by organizing the potential movies in Jack's radar for him. Jack gives you a list of movies, each with the following fields:

- Title

- Genre(s)

- Audience Rating

- Critic Rating

Your program should be able to group the movies based on the field Jack specifies, and within those groups sort the movies by the following criteria:

- First, sort by Audience Rating in descending numerical order

- then sort by Critic Rating in descending numerical order

- then sort by Genre in descending alphabetical order

- then sort by Title in descending alphabetical order

- If a movie contains multiple genres, sort by Title instead. You can assume Title is unique for all movies since Jack despises remakes of classics.

After grouping and sorting the movies, you should then show the field values that the movies are grouped on, sorted by the order specified by Jack(ascending or descending), and under each field values show the list of movies with matching field values, sorted by the criteria. When comparing field values, ignore all cases(i.e. "comedy" will be considered equal to "Comedy"). Convert the genres to all lowercase in the output. Some movies could be under more than one genre: the genre's will be listed one by one on the same line, separated by a comma. When grouping by genre, if a movie fits into more than one genre, it should be listed under all matching genres. *Lists of genres, such as "sci-fi/thriller", are not considered a separate genre.*

Input

The first line will contain one integer, denoting n number of movies to be listed, $5 \leq n \leq 100$, followed by a comma, followed by a string that specifies the field to group the movies on, followed by a comma, followed by the order to sort the groups, either ASC or DESC. The field will be either "Audience Rating", "Critic Rating", or "Genre(s)". Then for each movie, five lines will be shown in order: a line containing the title of the movie, followed by a line containing the audience rating a, $0 \leq a \leq 5$, followed by a line containing the critic rating c, $0 \leq c \leq 5$, followed by a line containing the genres, which can be either a single string, or a list of strings separated by commas.

Output

For the first line, print out "Grouped By: ", followed by the name of the grouping field, followed by a comma, then a single whitespace, then the sorting order of the groups, either DESC or ASC. For each value of the grouping field, print out the field value, followed by a single colon. Then for the list of movies with

the matching field value, for each field, print out: a line contain exactly two whitespaces in the beginning, followed by the field name specified in the problem description, followed by a single colon, followed by a single whitespace, then the field value. For each movie, after printing out its fields, print out a single line starting with two whitespaces followed by a ˜, except the last movie in the group, which should not print this line. No Trailing whitespaces are allowed before or after each line.

Sample Input

```
6,Critic Rating,DESC
The Room
thriller,comedy
1
1
Eraserhead
thriller,horror
5
5
Casablanca
Thriller,romance
5
5
Transformers
action,Sci-Fi
4
1
Twelve Angry Men
drama
5
5
The Shining
horror
5
5
```

Sample Output

```
Grouped By: Critic Rating, DESC
5:
  Title: The Shining
  Genre(s): horror
  Audience Rating: 5
  Critic Rating: 5
  ~
  Title: Twelve Angry Men
  Genre(s): drama
  Audience Rating: 5
  Critic Rating: 5
  ~
  Title: Eraserhead
  Genre(s): thriller,horror
  Audience Rating: 5
  Critic Rating: 5
  ~
  Title: Casablanca
  Genre(s): thriller,romance
  Audience Rating: 5
  Critic Rating: 5
1:
  Title: Transformers
  Genre(s): action,sci-fi
  Audience Rating: 4
  Critic Rating: 1
  ~
  Title: The Room
  Genre(s): thriller,comedy
  Audience Rating: 1
  Critic Rating: 1
```