Media Library (II)   X13635_en

A media library is a program used to organise digital audio on a personal computer. Among many other functions, the user can access the attributes of a song, such as: artist, title, genre and year. You have to make a program supporting queries to the media library.

In particular, once the data available on the library has been read by your program, a genre (e.g., *Rock*) can be introduced to retrieve all the songs belonging to this genre, listed by artist, year and title order.

Use the following program structure, which can not be changed:

```
#include <iostream>
#include <vector>
#include <algorithm>
using namespace std;

struct Track {
  string artist, title, genre;
  int year;
};

bool comp(const Track &a, const Track &b) {
  // Add your code here ...
}

vector<Track> read_tracks(int n) {
  // Add your code here ...
}

void print_track(const Track &t) {
  cout << t.artist;
  cout << " (" << t.year;
  cout << ") " << t.title << " (" << t.genre << ")" << endl;
}

int main() {
  // Add your code here ...
}
```

Exam score: 2.5 **Automatic part:** 0%

Input

The input consists of a number $n \geq 0$ followed by n songs, each of which consists of three strings (artist, title and genre) and an integer (year). This is followed by a sequence of strings (genres).

Output

For each genre in the input, print all the songs of that genre sorted by artist and, within artist, by year, and then by title. Follow the format of the test case.

Sample input

```
20
The_Rolling_Stones Start_Me_Up Rock 1981
The_Rolling_Stones Miss_You Disco 1978
The_Rolling_Stones Emotional_Rescue Rock 1980
The_Rolling_Stones Angie Rock 1973
The_Rolling_Stones Out_Of_Tears Rock 1994
The_Rolling_Stones Waiting_On_A_Friend Rock 1981
The_Rolling_Stones Honky_Tonk_Women Rock 1969
The_Rolling_Stones Rock_And_A_Hard_Place Rock 1989
The_Rolling_Stones Undercover_Of_The_Night Rock 1983
The_Rolling_Stones Satisfaction Rock 1965
The_Beatles Twist_And_Shout Rock 1964
The_Beatles Hey_Jude Pop 1968
The_Beatles Got_To_Get_You_Into_My_Life Rock 1966
The_Beatles Roll_Over_Beethoven Rock 1964
The_Beatles She_Loves_You Pop 1963
The_Beatles I_Want_To_Hold_Your_Hand Pop 1963
The_Beatles Let_It_Be Pop 1970
The_Beatles Love_Me_Do Pop 1962
The_Beatles Help Pop 1965
The_Beatles A_Hard_Day's_Night Pop 1964
Swing
Pop
Rock
```

Sample output

```
The_Beatles (1962) Love_Me_Do (Pop)
The_Beatles (1963) I_Want_To_Hold_Your_Hand (Pop)
The_Beatles (1963) She_Loves_You (Pop)
The_Beatles (1964) A_Hard_Day's_Night (Pop)
The_Beatles (1965) Help (Pop)
The_Beatles (1968) Hey_Jude (Pop)
The_Beatles (1970) Let_It_Be (Pop)
The_Beatles (1964) Roll_Over_Beethoven (Rock)
The_Beatles (1964) Twist_And_Shout (Rock)
The_Beatles (1966) Got_To_Get_You_Into_My_Life (Rock)
The_Rolling_Stones (1965) Satisfaction (Rock)
The_Rolling_Stones (1969) Honky_Tonk_Women (Rock)
The_Rolling_Stones (1973) Angie (Rock)
The_Rolling_Stones (1980) Emotional_Rescue (Rock)
The_Rolling_Stones (1981) Start_Me_Up (Rock)
The_Rolling_Stones (1981) Waiting_On_A_Friend (Rock)
The_Rolling_Stones (1983) Undercover_Of_The_Night (Rock)
The_Rolling_Stones (1989) Rock_And_A_Hard_Place (Rock)
The_Rolling_Stones (1994) Out_Of_Tears (Rock)
```

Problem information

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