





## **Problem C**

## **Academic Journals**

Time limit: 1 second

As a lecturer, it is important to learn in addition to teaching. In that way, students whom the lecturer teaches will always have the most updated knowledge. Otherwise, students will be filled with many outdated information, which makes them not ready for facing industry. In terms of learning, research is a promising alternative since it does not only enhance lecturer's knowledge but also contributes to the body of knowledge. Lim, as an early-career lecturer, is really motivated with this concept. He therefore does research in addition to teaching; wherein most of his research works are published on academic journals.

After several years, the number of his journal articles has become too high, making him difficult to manage. He then asks you, his supervised student, to make a small program for him. Such program accepts the metadata of journal articles and then sorts them based on a set of rules. Each metadata has six fields which are title (string), subtitle (string), journal name (string), journal volume (integer), journal issue (integer), and journal publication year (integer). Initially, Lim wanted to sort them only based on title in descending order. However, he changes his mind and provides the rules below:

- Articles are grouped per journal name. If there are several journal names, make them sorted ascending.
- All articles with similar journal name will be sorted in ascending order based on their publication year.
- If some articles have similar journal name and publication year, sort them in ascending order based on their volume. If two or more articles still has similar volume, try to sort ascendingly based on their issue
- Articles with similar journal name, volume, issue, and publication year will be sorted in ascending
  order based on its title. If some articles have similar title, try to sort them based on subtitles in
  ascending order.

## Input

Program will accept N (0<N<100) as its first input and then accept N journal article metadata. For each metadata, the program will accept its title first, followed by subtitle, journal name, journal volume, journal issue, and journal publication year.

## Output

Please take note that the output's format should be similar as the one given in sample output: journal information is prefixed with an underscore, each field content is separated with a space and ":" with its field name, and each metadata is ended with a newline.







Sample Input 1:

3

Source Code Plagiarism Detection A Structure-based Approach Journal of Computer

Journal

44

2017

Introducing An Educational Tool for Data

Structure A Case Study

Journal of Educational Tool

12

2

2017

Information Retrieval Definition

Student Perspectives Journal of Computer

42 1

2015

Sample Output 1:

title: Information Retrieval Definition

subtitle: Student Perspectives

journal info

\_name: Journal of Computer

\_volume: 42 \_issue: 1

\_publication year: 2015

title: Source Code Plagiarism Detection subtitle: A Structure-based Approach

journal info

\_name: Journal of Computer

\_volume: 44 issue: 4

\_publication year: 2017

title: Introducing An Educational Tool for Data

Structure

subtitle: A Case Study

journal info

\_name: Journal of Educational Tool

\_volume: 12 \_issue: 2

publication year: 2017

Sample Input 2:

3

Source Code Plagiarism Detection

A Structure-based Approach

Journal of Computer

44

4 2017

Introducing An Educational Tool for Data

Structure
A Case Study
Journal of Computer

44

4

2017

Information Retrieval Definition

Student Perspectives Journal of Computer

44 4

2017

Sample Output 2:

title: Information Retrieval Definition

subtitle: Student Perspectives

journal info

\_name: Journal of Computer

\_volume: 44 \_issue: 4

\_publication year: 2017

title: Introducing An Educational Tool for Data

Structure

subtitle: A Case Study

journal info

\_name: Journal of Computer

\_volume: 44 \_issue: 4

\_publication year: 2017

title: Source Code Plagiarism Detection subtitle: A Structure-based Approach

journal info

\_name: Journal of Computer

\_volume: 44 issue: 4

publication year: 2017