# Problem 4 – Lili’s New Horizons

Lili’s New Horizons is a company which offers high level education. You are given the task to create a semi-database for it. The database needs to save data about every course. Every course has several lecturers that lead it. Every lecturer has several lectures that he has to do. And every lecture has a number of people that go to it.

You will receive input in the following format:

“{courseName}/{lecturerName}/{lecture}/{people}”

If the course exists add the new lecturer with his data to it. If the lecturer exists in the current course, add the new lecture with its people to it.

When you receive the command “Expand your horizons” you end the input, and start printing the database. But the database must be sorted in a specific format.

Courses must be ordered first by number of people attending to its lectures – descending, then by number of lectures – ascending. For every course its lecturers must be ordered first by number of lectures they lead – descending, then by alphabetical order. For every lecturer its lectures must be sorted by number of people – descending. If any data is left unsorted after the sorting leave it by order of adding into the database.

### Input

* The input will come in the form of lines containing the information specified above.
* There will be no invalid input.

### Output

* For output, you must print all the courses in the following way:
* “Course – {courseName}
* Lecturer – {lecturerName}
* Lecture – {lectureName}, People – {countOfPeople}…”
* See example for more info.

### Constraints

* The Courses, Lecturers and Lectures will be strings. The number of people will be a valid 32-bit integer.
* There will be no invalid input.
* Allowed time/memory: 100ms/16MB

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| **Input** | **Output** |
| Microsoft Office Excel/Silvi/Rows/20  Microsoft Office Excel/Silvi/Columns/20  Microsoft Office Excel/Lili/Formulas/50  Microsoft Office Excel/Lili/Macros/40  Microsoft Office Word/Lili/Grammar/90  Microsoft Office Word/Lili/Punctuation/40  Expand your horizons | Course – Microsoft Office Excel  Lecturer – Lili  Lecture – Formulas, People – 50  Lecture – Macros, People – 40  Lecturer – Silvi  Lecture – Rows, People – 20  Lecture – Columns, People – 20  Course – Microsoft Office Word  Lecturer – Lili  Lecture – Grammar, People – 90  Lecture – Punctuation, People - 40 |