# Problem 4. Course Stats

It’s the end of the semester and someone’s gotta rack up some statistics for the courses that passed. That someone just so happens to be you. Start aggregatin’.

## Input / Constraints

Until you receive the line “end”, you will keep receiving lines in the format:

* {technology} – {course\_name}:{participants}, {course\_name}:{participants}...

The **input data will always be in the format specified above**. **There is no need to check it explicitly**.

Your task is to take all this data and **aggregate it**, so that you have statistics about all **languages**, **courses** and participants. If you receive a language + course combo, which already exists, **add these participants** to the current count of participants.

## Output

* On the **first line** of output, print:
  + “Most popular: {technology\_name} ({total\_participants} participants)”
  + {total\_participants} refers to the **sum** of **all participants** in **courses** for that **technology**.
* On the **second line** of output, print:
  + “Least popular: {technology\_name} ({total\_participants} participants)”
  + {total\_participants} refers to the **sum** of **all participants** in **courses** for that **technology**.
* On the next lines, print **all technologies**, **sorted** **descending** by the **sum** of the **participants** in their courses.
  + For each **technology**, print its **courses** **sorted descending** by their **participant count**.

The printing format for **each technology** looks like this:

|  |
| --- |
| **Technology1 ({total\_participants} participants):**  **--{Course1} -> {participant\_count}**  **--{Course2} -> {participant\_count}**  **--{Course3} -> {participant\_count}**  **Technology2 ({total\_participants} participants):**  **--{Course1} -> {participant\_count}**  **--{Course2} -> {participant\_count}** |

## Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| PHP - Web:2  C# - OOP Basics:330, Advanced:300, DB:250  Java - Advanced:550, DB:110  C# - Advanced:100  Java - DB:20  end | Most popular: C# (980 participants)  Least popular: PHP (2 participants)  C# (980 participants):  --Advanced -> 400  --OOP Basics -> 330  --DB -> 250  Java (680 participants):  --Advanced -> 550  --DB -> 130  PHP (2 participants):  --Web -> 2 |

|  |  |
| --- | --- |
| **Input** | **Output** |
| PHP - Basics:2, Web:44  C# - Basics:33  Python - Fundamentals:20  Python - Basics:20  Java - Advanced:150, DB:50  Python - Basics:60  end | Most popular: Java (200 participants)  Least popular: C# (33 participants)  Java (200 participants):  --Advanced -> 150  --DB -> 50  Python (100 participants):  --Basics -> 80  --Fundamentals -> 20  PHP (46 participants):  --Web -> 44  --Basics -> 2  C# (33 participants):  --Basics -> 33 |

|  |  |
| --- | --- |
| **Input** | **Output** |
| Python - Basics:10, Fundamentals:30  Python - Fundamentals:20  Python - Basics:20  Java - DB:60  Python - Basics:60  end | Most popular: Python (140 participants)  Least popular: Java (60 participants)  Python (140 participants):  --Basics -> 90  --Fundamentals -> 50  Java (60 participants):  --DB -> 60 |