

Problem 4. Roli - The Coder

Roli is really busy with the recently started JS Core and DB Fundamentals modules at SoftUni. She is used to going out with friends on various events. However, when the times comes, you need to tell her to start coding.

Roli is the organizer of those events, so she needs to **keep track of the unique participants for each event**. She saves the events by 'ID', which is the **unique code** for each event. **For each ID, she keeps the event name and the participants** for it.

She receives request in the following format:

- `{id} #{eventName} @{participant1} @{participant2} ... @{participantN}`

If she is given event in an **invalid format** (such as without a hashtag), she **ignores that line of input**. If she is given ID that **already exists** she needs to check if the **eventName** is the same. If it is, she **adds the participants** from the **request** to the other registered participants. If the event id exists but the name doesn't, it is invalid and you need to ignore it.

After you receive "**Time for Code**", you need to **print** the results. All events must be **sorted by participant count in descending order and then by alphabetical order**. For each event, the **participants** must be sorted in **alphabetical order**.

Input / Constrains

- Until you receive "**Time for Code**" you will get lines of input in which everything is separated by one or more blank spaces
- Until you receive "**Time for Code**", you will be receiving events in the following format:
 - `{id} #{eventName} @{participant1} @{participant2} ... @{participantN}`
- The participant names may contain **Latin letters, digits, single quotes (') and dashes (-)**.

Output

- All events must be sorted in **descending** order by participant count and **then by alphabetical order**. For each event, you need to print:
- `{eventName} - {participantCount}`
- On the next lines you need to print all participants. All participants for an event must be sorted alphabetically.

Examples

Input	Output
1 #Beers @roli @trophon @alice 2 #GameDevMeetup @sino @valyo 3 #Karaoke @nakov @royal @ROYAL @ivo Time for Code	Karaoke - 4 @ivo @nakov @royal @ROYAL Beers - 3 @alice @roli @trophon GameDevMeetup - 2

	@sino @valyo
Input	Output
1 #Beers @roli @trophon @alice 2 #GameDevMeetup @sino @valyo 1 #Beers2 @nakov @royal @ROYAL @ivo 1 #Beers @roli @trophon @alice @sino 3 #Rakia Time for Code	Beers - 4 @alice @roli @sino @trophon GameDevMeetup - 2 @sino @valyo Rakia - 0