**Task 1**

Your task is to create Vehicle catalogue which contains only Trucks and Cars.

Define class Truck with these properties: Brand, Model and Weight.

Define class Car with these properties: Brand, Model and Horse Power.

Define class Catalog with these properties: Collections of Trucks and Cars.

You have to read your input until you receive the "end" command.

The input will be in following format: {type}/{brand}/{model}/{horse power / weight}

In the end you have to print all vehicles ordered alphabetical by brand, in the following format:

Cars:

{Brand}: {Model} - {Horse Power}hp

Trucks:

{Brand}: {Model} - {Weight}kg

**input**:

Car/Audi/A3/110

Car/Maserati/Levante/350

Truck/Mercedes/Actros/9019

Car/Porsche/Panamera/375

end

**output**:

Cars:

Audi: A3 - 110hp

Maserati: Levante - 350hp

Porsche: Panamera - 375hp

Trucks:

Mercedes: Actros - 9019kg

**Task 2**

It's time for teamwork projects and you are responsible for making the teams. First you will receive

an integer - the count of the teams you will have to register. You will be given a user and a team

(separated with “-”). The user is the creator of that team.

For every newly created team you should print a message: "Team {team Name} has been created by

{user}!".

Next you will receive user with team (separated with "->") which means that the user wants to join

that team. Upon receiving the command: “end of assignment”, you should print every team,

ordered by the count of its members (descending) and then by name (ascending). For each team

(disband teams as well), you have to print its members sorted by name (ascending). However, there

are several rules:

If user tries to create a team more than once a message should be displayed:

- "Team {teamName} was already created!"

Creator of a team cannot create another team - message should be thrown:

- "{user} cannot create another team!"

If user tries to join currently non-existing team a message should be displayed:

- "Team {teamName} does not exist!"

Member of a team cannot join another team - message should be thrown:

- "Member {user} cannot join team {team Name}!"

In the end (after teams' report) teams with zero members (with only a creator) should

disband ordered by name in ascending other.

Every valid team should be printed ordered by name (ascending) in this format:

"{teamName}:

- {creator}

-- {member}…

**input**

3

Tatyana-CloneClub

Helena-CloneClub

Trifon-AiNaBira

Pesho->aiNaBira

Pesho->AiNaBira

Tatyana->Leda

PeshO->AiNaBira

Cossima->CloneClub

end of assignment

**output**

Team CloneClub has been created by Tatyana!

Team CloneClub was already created!

Team AiNaBira has been created by Trifon!

Team aiNaBira does not exist!

Team Leda does not exist!

AiNaBira

- Trifon

-- Pesho

-- PeshO

CloneClub

- Tatyana

-- Cossima

Teams to disband

**Task 3**

Define a class Employee that holds the following information: name, salary and department.

Your task is to write a program which takes N lines of employees from the console and calculates the department

with the highest average salary and prints for each employee in that department his name and salary – sorted by

salary in descending order. The salary should be printed to two digits after the decimal seperator

**input**

6

Stanimir 496.37 Coding

Yovcho 610.13 Sales

Toshko 609.99 Sales

Venci 0.02 BeerDrinking

Andrei 700.00 Coding

Popeye 13.3333 SpinachGroup

**output**

Highest Average Salary: Sales

Yovcho 610.13

Toshko 609.99