

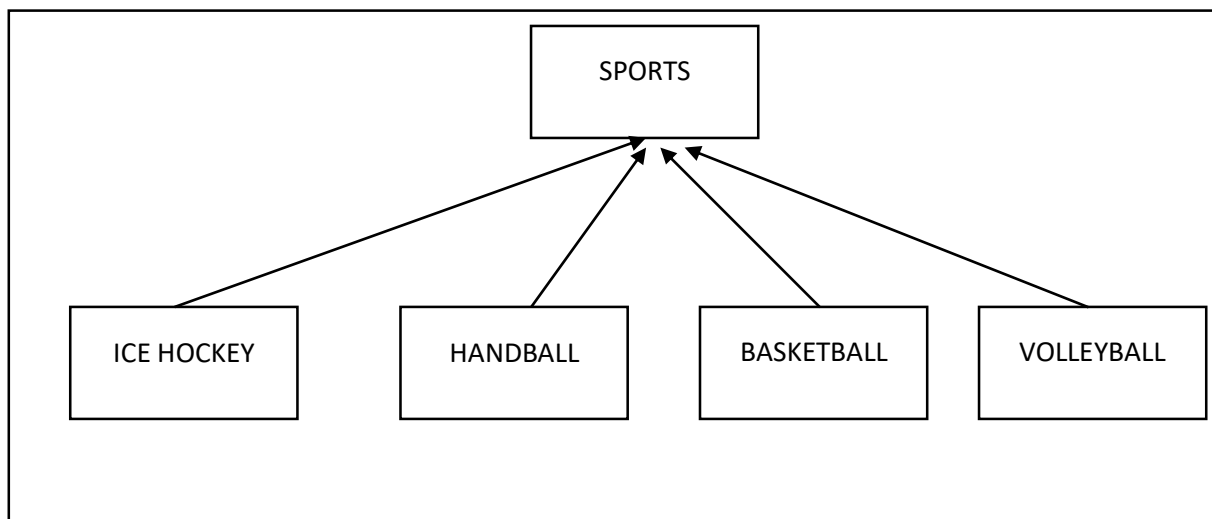
# QUIZ 2

Subject: Inheritance

Due Date: 12.04.2020/ 23.59

## 1 Problem

Write an object oriented program that creates the standing tables from the given all matches result separately of the Ice Hockey, Basketball, Handball and Volleyball sports.



### 1.1 Information about the sports

- In Ice Hockey, in which three points are awarded to the team winning a match, with no points awarded to the losing team. If the game is drawn, each team receives one point.
- In Handball, in which two points are awarded to the team winning a match, with no points awarded to the losing team. If the game is drawn, each team receives one point.
- In basketball, in which two points are awarded to the team winning a match, with one point awarded to the losing team.
- In volleyball ,points for won and lost matches are allocated as follows:
  - ✓ 3 points for the winner 3:0 or 3:1 of a match,
  - ✓ 2 points for the winner 3:2 of a match,
  - ✓ 1 point for the loser 2:3 of a match,
  - ✓ 0 point for the loser 0:3 or 1:3 of a match
- If two or more teams are on the same number of points. The number of goals scored against a team is subtracted from the number of goals it has scored itself. The bigger the goal difference, the better.

## 1.2 Restrictions

- You must implement your codes by using inheritance.
- There are 4 teams in each sport type.
- The initial scores of the 4 teams in each sport type are zero.
- Since each group has 4 teams separately, there will be 6 match totally in each group. Therefore, there are 24 match (fixed 24 lines) totally in fixtures.txt
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## 1.2 Sample Input and Outputs

- Sample input file named as **fixtures.txt**:

<b>[First letter of sport]tab[name of first club]tab[name of second club]tab[match result]newline</b>
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fixtures.txt

```
I Vancouver Canucks Dallas Stars 3:0
H Nilufer Bld. Guneyisu 18:23
H Guneyisu IzmirBB 19:21
V Eczacıbası Vakıfbank 3:2
I Colorado Avalanche Vancouver Canucks 2:1
B Karsiyaka Bahcesehir 68:70
H Goztepe IzmirBB 31:17
I Vancouver Canucks St. Louis Blues 3:3
V Fenerbahce Galatasaray 2:3
I Dallas Stars Colorado Avalanche 2:3
```

- Sample output files

<b>[ranking.]tab[name of club]tab[number of played matches]tab[ number of matches won]tab[match with an even score or tie]tab[ number of matches loss]tab[ number of sets For : the number of sets Against]tab[total points]newline</b>
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volleyball.txt

1.	Galatasaray	3	3	0	0	9:5	7
2.	Eczacıbası	3	2	0	1	7:6	5
3.	Vakıfbank	3	1	0	2	7:7	5
4.	Fenerbahce	3	0	0	3	4:9	1

- You are expected to write the output of your program to a text file named **type\_of\_sport.txt** for **each type of sport**. (for example: volleyball.txt, handball.txt, .....)
- The explanation of the standing table columns for each sport types are as follows:
  - First column defines the ranking
  - Second column defines the club name
  - Third column defines the number of played matches

- Fourth column defines the number of matches won
- Fifth column defines the number of times a team has finished a match with an even score or tie
- Sixth column defines the number of matches loss
- Seventh column defines the number of sets For : the number of sets Against
- Eighth column defines the total number of points earned

#### 1.4 How to run your program

The input file is going to be given as program argument. In order to test your program, you should follow the following steps:

- Upload your java files to your server account (dev.cs.hacettepe.edu.tr)
- Compile your code (javac Main.java or javac \*.java)
- Run your program (java Main fixtures.txt)
- Control your output data and format.

#### 2 Submission Notes

- Test your program on "dev.cs.hacettepe.edu.tr" before submission. Your submission will be compiled and executed in this machine and this machine only.
- Do not submit any file via e-mail. You will use online submission system to submit your experiments. Other type of submissions especially by e-mail WILL NOT BE ACCEPTED.
- Save all your work until the assignment is graded.
- The assignment must be original, individual work. All the duplicate or Internet works (even if a citation is provided) are both going to be considered as cheating.
- Don't use your instructors as a google. Use google for general purposes then ask us for specific ones
- You can ask your questions through Piazza and you are supposed to be aware of everything discussed there.
- The submission format is given below: This file hierarchy must be zipped before submission (Not .rar, only .zip files are supported by the system)

<student id.zip>

src.zip (Main.java, \*.java)