

QUIZ 2

Due Date: 27.02.2022/ 23.59

1 Problem

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

1.1 Information about the sports

- In Football, 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 have same points, standings will change as follow: The team with the total number of goals scored more than the number of goals conceded will be standigns higher. If it is also equal, stand them as alphabetic order.

1.2 Restrictions

- You must implement your codes by class structure.
- There are 4 teams in each sport type.
- The initial scores of the 4 teams in each sport type are zero.
- The teams for each sport type are in a different group. You are expected to calculate the instant standings according to the scores in the fixtures.txt

1.2 Sample Input and Outputs

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

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

F	Real Madrid	Napoli	2:1	
B	Karsiyaka	Bahcesehir	68:70	
H	Goztepe IzmirBB	31:17		
F	Napoli Marsilya	3:3		
V	Fenerbahce	Galatasaray	2:3	
F	Benfica Real Madrid	2:3		
B	Karsiyaka	Galatasaray	75:83	
V	Fenerbahce	Vakifbank	1:3	
B	Galatasaray	Fenerbahce	95:80	
F	Marsilya	Benfica	1:4	
B	Fenerbahce	Karsiyaka	68:72	

- Sample output files

[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 goal scored : number of goals conceded]tab[total points]newline

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, football.txt, basketball.txt, handball.txt). In other word, you are expected to produce 4 output file in same directory with your source code.
- 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 goal scored: number of goals conceded (it will be number of set for volleyball)
 - 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.
- 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>

 - Main.java, *.java