

Two days ago a gaming tournament occurred, players from all around the world battled 1v1 in a famous game. Unfortunately, the system crashed, all that is left is player's log and matches' log.

Let's consider 2 files:

Gamers.txt : has the list of players, and for each player the following attributes:

- Surname
- Name
- Numbers of matches played
- Matches won
- Matches lost

Matches.txt: has the list of matches, and for each match the following attributes:

- Surname Player 1
- Name Player 1
- Surname Player 2
- Name Player 2
- Number of rounds
- Points Player 1
- Points Player 2
- Duration of the match (in minutes)

Both files have the following format:

Attribute_1;Attribute_2;...;Attribute_N

Attribute_1:Attribute_2;...;Attribute_N

Consider there are no repetitions in the file of players.

Write a program in C++ that, using the information in the files, executes the following operations:

- Print leaderboard of the tournament
- Given a surname, print every match played by the player.
- Print the K longest matches (with K given as a parameter) (longest in minutes)
- Delete the last M players (with M given as a parameter) (last in points)
- Delete every match with the lowest number of rounds.

The writing of the code must contain classes with all attributes and methods needed to run.

Complete classes with adequate attributes and method, in arbitrary manner.

Write a main() method to verify the methods requested.

Also write a small essay explaining your planning choices, explaining why you chose a data structure and methods instead of another one.

Note: the project must run on a generic machine using the command g++