

Programming Project / C++
-= Table Tennis Tournament=-

Student 1: Stephanie Matasaru

Student 2: Ioana Roxana Hanas

I. Problem Statement

Student 1 is responsible for managing the tournament:

- adding new match results with validation
- updating player statistics (wins/losses)
- saving matches to a file

Student 2 is responsible for interacting with the tournament system:

- viewing the ranking of players
- checking match history and individual player records
- resetting the tournament

II. Data Structures Used by the Team

The following classes will be used:

- Player: string name, int wins, int losses
- Match: string player1, string player2, int score1, int score2

III. File Structure

The following files will be used:

- matches.txt

A file that stores all played matches in the format:

<number_of_matches>

<player1> <score1> <player2> <score2>

- players.txt

A file that stores player statistics:

<number_of_players>

<name> <wins> <losses>

IV. Interaction with Executables

- App 1 will expose the following options:
./app_1.exe add_match <player1> <score1> <player2> <score2>
Adds a match and updates player stats.

./app_1.exe match_history
Displays all matches in chronological order.

./app_1.exe list_players
Displays players and their win/loss stats.
- App 2 will expose the following options:
./app_2.exe show_rankings
Displays players ranked by number of wins.

./app_2.exe show_player <name>
Displays win/loss record and match history for a given player.

./app_2.exe reset
Clears all tournament data (matches and players).