

CSE2031

Lab 4 FALL 2009

In this lab, you will extend the program you wrote in the previous lab to handle more complicated inputs. The program will be marked based on the specifications. Please read carefully before you start coding. From this lab on, you have to follow precisely the submit format, your program will not be marked if it is not submitted according to the specifications at the end of this document.

Specifications

Write an ANSI C program to do the following

The program reads from the standard input a number of records, each record in a line. The record consists of the following fields

- The team name: a sequence of characters (letters, numerals and _) with a maximum of 30 characters.
- The number of games won 1-99
- The number of games tied 1-99
- The number of games lost 1-99
- Streak, a positive streak indicates a winning streak, a negative streak indicates a losing streak.
- The actual streak in the form of a string made of three letters only (wld), for example the string could be wwlddlwww which describes the team results (5 wins, 3 losses and 2 draws) That means a streak of +3.

Fields in the input are separated by white spaces (spaces or tabs).

The program should read the data and display a list with the team name, points earned, and streak. The points are calculated as 3 point for win, 1 point for tie, and 0 for loss.

For example, one output should look like that

Renegades\t 35\t+5 where \t means a tab. Do not output the two characters \"slash\" and t, output a tab.

The number of points are to be written in 3 digits (right justified) and the streak is a sign followed by a number in 2 digits (right justified)

A sign followed by a number right justified in 2 digits is as follows 9 assume dot represent a space (+.2) or (+12)

Each record should end with a newline (including the last one).

The program should be able to deal with the following cases.

1. If the name of the team includes any other characters than the ones

defined above, the program should output "Illegal team name" followed by an end of line.

2. If the number of games (won, lost, or tied) is -ve, the program should output the name of the team, followed by a tab, then the string "negative number of games" followed by a new line.
3. If any of the number of games played is more than 99. The program should output the name of the team as above, followed by a tab, followed by "games played are more than 99" followed by a newline.
4. The program should check the game results against the streak, number of wins, and number of losses against the number of wins, losses or draws given as input as well as the streak. If there is no discrepancy the program does nothing (just output the above information). For example if the game results are wwwldw that means the number of wins is 4, losses 1, draws 1 and the streak is 1 (or +1) if that does not match the numbers in the record, that is a discrepancy. If there is a discrepancy, the program should output an error message as follows "results do not match games" followed by a new line.

In case of multiple errors, the program should output only one error message. The priority of the error messages are given by the order of the errors given above.

Submit

the program should be named l4.c and the submit command is

submit 2031 l4 l4.c