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Group Assignment 2 - Basketball Report

Our group assignment is divided into two primary files, a main.cpp file and a roster.h file. It also includes a menu.txt file with which the program will output a sub log report for the game at the end. In the main.cpp file, the team and the game is created. In roster.h, the classes and functions are used to create the game, linked lists, and outputs. The first class is the Player class, which is used to create the players that will be placed in the linked lists. The roster class is used as the linked lists and calls upon the Player class to populate it. The roster class has many functions such as adding to the beginning and the end of the lists. It also uses functions to swap and sort the players within the lists, and a function to sub the players from the court to the bench. Lastly, the roster class also uses functions to print the output during the game and output the report for the game.

The program does not use input files but rather a pseudorandom generation of a team that generates the player's age, number, position, and rating. The players will be subbed from the court by their rating and position. The game will take place for 48 minutes or 4 quarters and will sub players throughout each quarter. During the game, there will be an output into the terminal about the players being subbed out. At the end of the game, the terminal will prompt the user to input a choice of a report, or to be finished and close the program. Also, when the program is finished it will output a text file for the sub log report from throughout the game.

The output for the reports is created in the terminal and will require you to select from inputs 1-6 to choose what format of the report you would like. Reports 1 through 4 will be sorted by minutes, age, rating, and number respectively. Report 5 is the sub log report that outputs to a text file upon completion of the program and into the terminal as a result of choosing 5 as an input. Input 6 closes the program. This program may have problems running on a Mac due to some functions used to help with formatting.