Test 3

Time: 2:15pm - 4:45pm.
Your answerscripts need to be uploaded within this time, and no extra time will be given.

Questions: No global variables are allowed for the following program:

- Define a structure **Player** that will contain the following information of a cricket player: player's name, country, date of birth, date of debut first class match, number of tests played, number of one day internationals (ODIs) played, number of centuries scored, number of half centuries scored, total runs scored in tests, total runs made in ODIs, number of wickets taken in test cricket, number of wickets taken in ODIs, etc. (you may add some more fields).

- Write a menu based program to do the following to an array of type **Player**:

  1. Take an input integer as the new size for the array. If the new size is larger than the old size by m, then the data of m new players have to be inserted.
     If the new size is less than the old size by m, then the last m player information have to be deleted.
     If the new size is equal to the old size, then no changes are needed.

  2. Write a recursive function to take as input a positive integer, and count the number of players who have played at least those many one day internationals.

  3. Write a function to take as input a positive integer, and display the number of players who have played at least those many one day internationals.

  4. Given an array of Players, sort alphabetically over the first 3 letters of the name. Sorting according to alphabetical order means: Ram and Ramesh do not have any preferred order, while for Ramesh and Rajesh, Rajesh comes before Ramesh.

  5. Print (with proper indentation) the entire list sorted in alphabetical order of player names.

Depending on what is chosen by the user, the required operation is executed by the main function.