

CS515: Computer System Lab 2

Date: 3rd Feb 2022

Assignment 5

Submission Filename: [assign5Design.pdf](#) ([assign5.c](#) or [assign5.cpp](#)) Due Date: 13th Feb 2022 09:00 am

In this assignment, you need to design and develop players' information systems for a cricket team without using conventional database management system. You may need to deal with various data structures for developing this application and your objective will be to make this system as efficient as possible.

In this system, the following information need to be stored for each player.

- Name
- PlayerID (assume a 4 digit number): Must be unique for each player.
- BirthYear (age of a player can be calculated simply by performing CurrentYear - BirthYear)
- MatchesPlayed
- RunsScored
- WicketsTaken
- CatchesTaken

As the roll number is unique so it can be used locate a student's record. Now you need to perform the following operations -

1. Add a player record
2. Delete a player record
3. Update a player record
4. Search for information of player using playerID
5. Search for information of player using name
6. List of players having RunsScored/WicketsTaken/CatchesTaken more than equal a given value

Use files and other data structures to implement this student information management system. You may implement it using C or C++. Do not use any library/package (eg. STL etc) to implement this. Also, please prepare a design document [[design.pdf](#)] containing the details of your implementation plan. In this document, you are supposed to provide necessary justification why your implementation will be efficient. If you have taken any valid assumption then you must include that in this document. Please take care of entering input and showing output as it should be convenient and easy to understand for any users who are going to use this system. Your code must be well documented and any invalid input must also be handled properly.