

**Lab 10\_M**  
**OOP – BCS**

**Note:** Use const wherever possible, otherwise you may face syntax errors later

Copy/ download all program and text files shared in lab folder in your local system (Files include Task1.cpp, T20.txt, Task2.cpp, T20\_1.txt files).

**Task 1:** Use Task1.cpp for this task. Add following member function in PlayerList class and run main function:

- a. Search player in the list by matching both first & last name, if any of them match, display complete record of the player, otherwise display message that player is not in the list:

**void searchByName(char \*nam)**

- b. Compare total runs & average of each player and display records of players having score and average greater than equal given runs & average. To show players call **showlthPlayer** function in Player class  
**void showSelectedPlayers (int runs, float avg)**

- c. Sort Players on the basis of match count from highest to lowest (in descending order), however if two players have same count arrange them on average (again in descending order) . For sorting, you have to write copy constructor & assignment operator in Player class. Finally, you may require to write empty non-parameterized constructor of class Player

**void sortPlayers ()**

```
int main(){
    int temp;
    PlayersList list;
    list.searchByName("Babar");
    cout << "Enter any character to proceed: ";
    cin>>temp;
    list.searchByName("Finch");
    cout << "Enter any character to proceed: ";
    cin>>temp;
    list.searchByName("Anees");
    cout << "Enter any character to proceed: ";
    cin>>temp;
    list.showSelectedPlayers(2500, 30);
    cout << "Enter any character to proceed: ";
    cin>>temp;
    list.sortPlayers();
    list.showAll();
    return 0;
}
```

**Task 2:** Use "Task2.cpp" source file from lab folder for this task. Create a class Team with 11 player side. Team should have some name of maximum 30 characters and eleven players. Use PlayersList class and select 11 players at random (but check for duplication, there should not be same player occur twice) in the team. For this you may have to add **getPlayer** function in PlayerList class. Write following member functions and call them in main to show functionality:

- a. Write constructor to set team name and set players from Player List

**Team(char \*teamName, PlayerList&)**

- b. Show team name and eleven players. To print players, show same function used in show function of PlayerList class

**void showTeam()**

```
int main(){
    PlayersList list;
    Team team("ABCDEFGH", list);
    team.showTeam();
    return 0;
}
```

\*\*\*\*\*

END OF LAB (Best of Luck)

\*\*\*\*\*