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| **Assignment # 13**  ***Session*: Spring 2022 *Total marks*: 100**  ***Name*** : ***\_NIMRA MAQBOOL\_ Roll number* : \_\_BSCE21012\_** |

***Submission:***

• *Email instructor or TA if there are any questions. You cannot look at others’ solutions or use others’ solutions, however, you can discuss it with each other. Plagiarism will be dealt with according to the course policy.*

*• Submission after due time will not be accepted.*

**There should be a Report explaining your code and highlighting results. Follow this naming convention for your report RollNumber\_Assignment#.pdf e.g BSCE21001\_Assignment13.pdf.**

### **Problem** (Already discussed in class)

You have been making a cricket tournament application in your previous assignment. Keep your application persistent and add code to the previous code to add another functionality.

Now you need to **add players to respective teams** (teams that you already created in assignment 12)

**Sample:**

[**https://score7.io/kwarvahun6/overview**](https://score7.io/kwarvahun6/overview)

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| Function.h:  #ifndef MAIN\_CPP\_FUNCTIONS\_H #define MAIN\_CPP\_FUNCTIONS\_H   #include <iostream> #include <string> #include <iomanip> #include <fstream>  using namespace std;  class teams { public:  string departmentName;  string playerName; //declaring  string captainName;  int numberOfBowler;  int numberOfBatsman;  int numberOfAllRounder;  int reservedPlayers;  int currentlyPlaying;  int ageOfPlayer;  int totalNumberOfTeamPlayer;  long int phoneNumber;  string enrollmentYear;  string email;  string rollNumber;  string category; // string teamName;  char teamsNames[99]; public:  teams() {  departmentName = " ";  numberOfAllRounder = 0;  numberOfBatsman = 0;  numberOfBowler = 0;  playerName = " ";  captainName = " "; //putting it equal to zero or space  reservedPlayers = 0;  currentlyPlaying = 0;  ageOfPlayer = 0;  email = " ";  rollNumber = " ";  enrollmentYear = " ";  phoneNumber = 0;  totalNumberOfTeamPlayer = 0;  category = " "; // teamName=" ";  }   teams(string DepartmentName, string PlayerName, string CaptainName, int NumberOfBowler,  int NumberOfBatsman, int NumberOfAllRounder, int ReservedPlayers, int CurrentlyPlaying, int AgeOfPlayer,  long int PhoneNumber, string EnrollmentYEar, string Email, string RollNumber, int TotalNumberOfTeamPlayer,  string Category,string TeamName  ) {  departmentName = DepartmentName;  playerName = PlayerName;  captainName = CaptainName;  numberOfBowler = NumberOfBowler;  numberOfBatsman = NumberOfBatsman;  numberOfAllRounder = NumberOfAllRounder;  reservedPlayers = ReservedPlayers;  currentlyPlaying = CurrentlyPlaying; //setting values in constructor  ageOfPlayer = AgeOfPlayer;  phoneNumber = PhoneNumber;  enrollmentYear = EnrollmentYEar;  email = Email;  rollNumber = RollNumber;  totalNumberOfTeamPlayer = TotalNumberOfTeamPlayer;  category = Category; // teamName=TeamName;  }   void info() {  for (int i = 0; i < 8; i++) {  cout << "\nENTER DEPARTMENT NAME = ";  cin.ignore();  getline(cin, departmentName); //taking input  cout << "Enter another string: ";  cin.get(teamsNames,99);  fstream File; //declaring  File.open("playerInfo", ios::app);  if (!File.is\_open()) {  cout << "Error while creating the file";  } else {  cout << "ENTER TOTAL NUMBER OF TEAM PLAYERS = ";  cin >> totalNumberOfTeamPlayer;  cout << "ENTER NUMBER OF PLAYERS CURRENTLY PLAYING = ";  cin >> currentlyPlaying;  cout << "ENTER NUMBER OF RESERVED PLAYERS = ";  cin >> reservedPlayers;  cout << "ENTER NUMBER OF BOWLERS = ";  cin >> numberOfBowler;  cout << "ENTER NUMBER OF BATSMAN = ";  cin >> numberOfBatsman;  cout << "ENTER NUMBER OF ALL ROUNDER = ";  cin >> numberOfAllRounder;  File << "TOTAL NUMBER OF PLAYERS = " << totalNumberOfTeamPlayer << endl;  File << "NUMBER OF CURRENTLY PLAYING PLAYERS = " << currentlyPlaying << endl;  File << "NUMBER OF RESERVED PLAYING PLAYERS = " << reservedPlayers << endl;  File << "NUMBER OF BOWLERS = " << numberOfBowler << endl;  File << "NUMBER OF BATSMAN = " << numberOfBatsman << endl;  File << "NUMBER OF ALL ROUNDER = " << numberOfAllRounder << endl;  for (int i = 0; i < currentlyPlaying; i++) {  cout << "ENTER NAME OF PLAYER = ";  cin >> playerName;  cout << "ENTER PLAYER AGE = ";  cin >> ageOfPlayer;  cout << "ENTER PLAYER PHONE NUMBER = ";  cin >> phoneNumber;  cout << "ENTER ENROLLMENT YEAR = ";  cin >> enrollmentYear;  cout << "ENTER EMAIL : ";  cin >> email;  cout << "ENTER ROLL NUMBER = ";  cin >> rollNumber;  cout << "ENTER CATEGORY OF PLAYER = ";  cin >> category;  File << "PLAYER NAME = " << setw(20) << playerName << setw(20) << "AGE = " << setw(20)  << ageOfPlayer << setw(20) << "PHONE NUMBER = " << setw(20) << phoneNumber << setw(20)  << "ENROLLMENT YEAR = " << setw(20) << enrollmentYear << setw(20) << "ROLL NUMBER = "  << setw(20) << rollNumber << setw(20) << "EMAIL = " << setw(20) << email << setw(20)  << "CATEGORY : " << setw(20) << category << endl;  cout<<"--------------------------------------------------------------"<<endl;  File<<"--------------------------------------------------------------"<<endl;  }  for (int i = 0; i < reservedPlayers; i++) {  cout << "ENTER NAME OF PLAYER = ";  cin >> playerName;  cout << "ENTER PLAYER AGE = ";  cin >> ageOfPlayer;  cout << "ENTER PLAYER PHONE NUMBER = ";  cin >> phoneNumber;  cout << "ENTER ENROLLMENT YEAR = ";  cin >> enrollmentYear;  cout << "ENTER EMAIL : ";  cin >> email;  cout << "ENTER ROLL NUMBER = ";  cin >> rollNumber;  cout << "ENTER CATEGORY OF PLAYER = ";  cin >> category;  File << "PLAYER NAME = " << setw(20) << playerName << setw(20) << "AGE = " << setw(20)  << ageOfPlayer << setw(20) << "PHONE NUMBER = " << setw(20) << phoneNumber << setw(20)  << "ENROLLMENT YEAR = " << setw(20) << enrollmentYear << setw(20) << "ROLL NUMBER = "  << setw(20) << rollNumber << setw(20) << "EMAIL = " << setw(20) << email << setw(20)  << "CATEGORY : " << setw(20) << category << endl;  cout<<"--------------------------------------------------------------"<<endl;  File<<"--------------------------------------------------------------"<<endl;  }  cout << "ENTER CAPTAIN NAME = ";  cin >> captainName;  }  File.close();  }  } };   * **IN FUNCTION.H I HAVE MADE A CLASS NAMED TEAMS.** * **THEN I HAVE MADE DEFAULT AND PARAMETRIZED CONSTRUCTOR.** * **THEN I HAVE MADE A FUNCTION NAMED INFO, IN WHICH I HAVE ASKED USER ABOUT THE DEPARTMENT NAME TEAM MEMBRES AND THEIR PERSONAL INFO.**   Main.cpp:  #include <iostream> #include "Functions.h" #include <string> #include <iomanip> #include <fstream>  using namespace std;  int main() {    teams T1;  teams T("abc","aa","bb",1,1,2,1,3,23,03225453000,"2021","bsce21012@gmail.com","bsce21012",5,"batsman","computerians");  T.info();    return 0; }   * In main I have called the functions.   Output:  Text  Description automatically generated  Text  Description automatically generated  **Text  Description automatically generated** |