*Object Oriental Programming*

*CL-1004*

*SEMETER FINAL PROJECT*



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*PROJECT CODE:*

*PLAYER.H*

#pragma once

#include<iostream>

using namespace std;

class Player {

private:

int shirtNo;

int average;

int totalRuns;

int matchPlayed;

int totalWickets;

public:

string ICC\_ranking;

string Name;

Player() {

Name = " ";

shirtNo = 0;

average = 0;

ICC\_ranking = " ";

totalRuns = 0;

matchPlayed = 0;

totalWickets = 0;

}

// function of class player

void information();

void remove();

void search();

void update();

virtual void add\_Player() = 0 ;

virtual void remove\_Player() = 0 ;

virtual void search\_Player() = 0 ;

virtual void update\_Player() = 0 ;

};

*PLAYER.CPP*

#include"Players.h"

void Player::information() {

cout << "Enter Player Name: ";

cin >> Name;

cout << "Enter Shirt Number : ";

cin >> shirtNo;

cout << "Average of Player : ";

cin >> average;

cout << "ICC-ranking of Player : ";

cin >> ICC\_ranking;

cout << "Total Runs of Player : ";

cin >> totalRuns;

cout << "Enter Match played : ";

cin >> matchPlayed;

cout << "Enter Total Wickets : ";

cin >> totalWickets;

}

void Player::remove() {

cout << Name << " Remove from team \n";

Name = " ";

shirtNo = 0;

average = 0;

ICC\_ranking = " ";

totalRuns = 0;

matchPlayed = 0;

totalWickets = 0;

}

void Player::search() {

cout << "Name of player : " << Name << endl;

cout << "Shirt\_number : " << shirtNo << endl;

cout << "Average ]: " << average << endl;

cout << "Matches played : " << matchPlayed << endl;

cout << "Total Wickets : " << totalWickets << endl;

cout << "ICC-ranking : " << ICC\_ranking << endl;

cout << "Total-runs : " << totalRuns << endl;

}

void Player::update() {

cout << "Update Shirt Number : ";

cin >> shirtNo;

cout << "Update Average : ";

cin >> average;

cout << "Update ICC-ranking : ";

cin >> ICC\_ranking;

cout << "Update Total Wickets: ";

cin >> totalWickets;

cout << "Update Total-runs : ";

cin >> totalRuns;

cout << "Update matches played : ";

cin >> matchPlayed;

}

*TEAM.H*

#pragma once

#include"Players.h"

#include<iostream>

using namespace std;

class Team : public Player {

// attributes of class

string team\_Name;

int noOfPlayers;

int totalMatchesWon;

int totalMatchesLost;

string teamCaptain;

string teamCoach;

public:

string ranking;

string AdminUsername;

string AdminPassword;

//constructor

Team() : Player() {

AdminUsername = " ";

AdminPassword = " ";

team\_Name = " ";

teamCaptain = " ";

ranking = " ";

noOfPlayers = 0;

totalMatchesLost = 0;

totalMatchesWon = 0;

teamCoach = " ";

}

// function of the class team

void add\_Player();

void remove\_Player();

void search\_Player();

void update\_Player();

void displayMatches();

void updateCaptain();

void updateCoach();

void displayTeam();

void get\_information();

void setUsername(string Admin\_Username)

{

this->AdminUsername = Admin\_Username;

}

string getUsername() {

return AdminUsername;

}

void setAdmin\_Password(string Admin\_Password)

{

this->AdminPassword = Admin\_Password;

}

string getAdmin\_Password() {

return AdminPassword;

}

};

*TEAM.CPP*

#include"Teams.h"

void Team::add\_Player() {

information();

}

void Team::remove\_Player() {

remove();

}

void Team::search\_Player() {

search();

}

void Team::update\_Player() {

update();

}

void Team::displayMatches() {

cout << "\*\*\*\*\*\*\*\*\*\*MATCHES\*\*\*\*\*\*\*\*\*\*" << endl;

}

void Team::updateCaptain() {

cout << "\*\*\*\*\*\*\*\*\*\*UPDATE CAPTAIN\*\*\*\*\*\*\*\*\*\*" << endl;

cout << "Enter Captian Name :";

cin >> teamCaptain;

}

void Team::updateCoach() {

cout << "\*\*\*\*\*\*\*\*\*\*UPDATE COACH\*\*\*\*\*\*\*\*\*\*" << endl;

cout << "Enter Coach Name :";

cin >> teamCoach;

}

void Team::get\_information() {

cout << "Enter Team Name : ";

cin >> team\_Name;

cout << "Enter Captian Name :";

cin >> teamCaptain;

cout << "Enter Coach Name :";

cin >> teamCoach;

cout << "Team Total Matches Win : ";

cin >> totalMatchesWon;

cout << "Team TotalMatches Lose : ";

cin >> totalMatchesLost;

cout << "Enter Team Ranking: ";

cin >> ranking;

}

void Team::displayTeam() {

cout << "Team Name : " << team\_Name << endl;

cout << "Captian Name :" << teamCaptain << endl;

cout << "Coach Name : " << teamCoach << endl;

cout << "Team Total Matches Win : " << totalMatchesWon << endl;

cout << "Team TotalMatches Lose : " << totalMatchesLost << endl;

cout << "Team Ranking: " << ranking << endl;

}

*MATCH.H*

#pragma once

#pragma once

#include"Teams.h"

#include<iostream>

using namespace std;

class Match : public Team {

// attributes of class

string team1;

string team2;

int Day;

int Month;

int Year;

string Venue;

string Match\_type;

string Tournament\_Name;

string Commentators;

int No\_Umpires;

string Match\_status;

int Highest\_score = 10000;

int Most\_sixes = 576;

int Most\_fours = 879;

public:

// constructor

Match() : Team() {

team1 = " ";

team2 = " ";

Venue = " ";

Day = 0;

Month = 0;

Year= 0;

Match\_type = " ";

Tournament\_Name = " ";

Commentators = " ";

No\_Umpires = 0;

Match\_status = " ";

}

// function of the class Match

void conductMatch();

void scheduleMatch();

friend void updateWorldRecords(Match obj) {

cout << "\*\*\*\*\*\*\*\*\*\*Function to UpDate World Recode " << endl;

cout << "Highest Score : ";

cin >> obj.Highest\_score;

cout << "Most Sixes : ";

cin >> obj.Most\_sixes;

cout << "Most Fours : ";

cin >> obj.Most\_fours;

}

friend void updateTeamRanking(Match obj) {

cout << "\*\*\*\*\*\*\*\*\*\*Function to UpDate Team Ranking\*\*\*\*\*\*\*\*\*\* " << endl;

cout << "Team Ranking : ";

cin >> obj.ranking;

}

friend void displayUpcomingMatches(Match obj) {

cout << "\*\*\*\*\*\*\*\*\*\*Function For UpComming Matches\*\*\*\*\*\*\*\*\*\*" << endl;

cout << "1) PAKISTAN VS INDIA || MONDAY " << endl;

cout << "2) WESTEN INDIES VS SOUTHAFRICA ||TUESDAY " << endl;

cout << "3) ZIMBAWA VS NEATHERLAND ||WEDNESDAY " << endl;

cout << "4) CROTIA VS SOUTHAFRICA ||THURSDAY " << endl;

}

friend void displayRecentMatches(Match obj) {

cout << "\*\*\*\*\*\*\*\*\*\*Function For Recent Matches\*\*\*\*\*\*\*\*\*\* " << endl;;

cout << "1) INDIA VS BANGLADEISH || TODAY " << endl;

cout << "2) AFGANISTAN VS KENIYA || TODAY " << endl;

}

};

*MATCH.CPP*

#include"Matches.h"

void Match::conductMatch() {

cout << "\*\*\*\*\*\*\*\*\*\*Function For TO CONDUCT Matches\*\*\*\*\*\*\*\*\*\*" << endl;

cout << "1) PAKISTAN VS INDIA || MONDAY " << endl;

cout << "2) WESTEN INDIES VS SOUTHAFRICA ||TUESDAY " << endl;

cout << "3) ZIMBAWA VS NEATHERLAND ||WEDNESDAY " << endl;

int num;

cout << "Enter Option to Conduct Match : ";

cin >> num;

if (num == 1) {

team1 = "PAKISTAN";

team2 = "INDIA";

Venue = "KADAFI";

Day = 8;

Month = 2;

Year = 2010;

Match\_type = "ODI";

Tournament\_Name = "PSL";

Commentators = "WASIM";

No\_Umpires = 2;

Match\_status = "TEST";

cout << "TEAM 1 : " << team1 << endl;

cout << "TEAM 2 : " << team2 << endl;

cout << "Venue : " << Venue << endl;

cout << "Day/Month/Year : " << Day << "/" << Month << "/" << Year << endl;

cout << "Match\_type : " << Match\_type << endl;

cout << "Tournament\_Name : " << Tournament\_Name << endl;

cout << "Commentators : " << Commentators << endl;

cout << "No\_Umpires : " << No\_Umpires << endl;

cout << "Match\_status : " << Match\_status << endl;

}

if (num == 2) {

team1 = "WESTEN INDIES";

team2 = " SOUTHAFRIKA";

Venue = "KADAFI";

Day =11;

Month = 11;

Year = 2011;

Match\_type = "ODI";

Tournament\_Name = "PSL";

Commentators = "RAJA";

No\_Umpires = 6;

Match\_status = "TEST";

cout << "TEAM 1 : " << team1 << endl;

cout << "TEAM 2 : " << team2 << endl;

cout << "Venue : " << Venue << endl;

cout << "Day/Month/Year : " << Day << "/" << Month << "/" << Year << endl;

cout << "Match\_type : " << Match\_type << endl;

cout << "Tournament\_Name : " << Tournament\_Name << endl;

cout << "Commentators : " << Commentators << endl;

cout << "No\_Umpires : " << No\_Umpires << endl;

cout << "Match\_status : " << Match\_status << endl;

}

if (num == 3) {

team1 = "ZIMBAWA";

team2 = " =NETHERLAND";

Venue = "KADAFI ";

Day = 3;

Month = 4;

Year = 2020;

Match\_type = "T20";

Tournament\_Name = "IPL";

Commentators = "IMAD";

No\_Umpires = 2;

Match\_status = "TEST";

cout << "TEAM 1 : " << team1 << endl;

cout << "TEAM 2 : " << team2 << endl;

cout << "Venue : " << Venue << endl;

cout << "Day/Month/Year : " << Day << "/" << Month << "/" << Year << endl;

cout << "Match\_type : " << Match\_type << endl;

cout << "Tournament\_Name : " << Tournament\_Name << endl;

cout << "Commentators : " << Commentators << endl;

cout << "No\_Umpires : " << No\_Umpires << endl;

cout << "Match\_status : " << Match\_status << endl;

}

else {

cout << "YOU Enter The Wrong Choice " << endl;;

}

}

void Match::scheduleMatch() {

cout << "\*\*\*\*\*\*\*\*\*\*Function For TO Schedule Matches\*\*\*\*\*\*\*\*\*\*" << endl;

cout << "ENTER TEAM 1 NAME : ";

cin >> team1;

cout << "ENTER TEAM 2 NAME: ";

cin >> team2;

cout << "Enter Date: ";

cout << "Enter Day ";

cin >> Day;

cout << "Enter Month : ";

cin >> Month;

cout << "Enter Year : ";

cin >> Year;

cout << "Enter Venue : ";

cin >> Venue;

cout << "Enter Match Type : ";

cin >> Match\_type;

cout << "Enter Tournament Name : ";

cin >> Tournament\_Name;

cout << "Enter name of Commentator : ";

cin >> Commentators;

cout << "Enter NO Of Empires : ";

cin >> No\_Umpires;

cout << "Enter Match Status : ";

cin >> Match\_status;

}

*MAIN.CPP*

#include<iostream>

#include"Players.h"

#include"Teams.h"

#include"Matches.h"

#include <windows.h>

using namespace std;

HANDLE hConsole = GetStdHandle(STD\_OUTPUT\_HANDLE);

int main() {

SetConsoleTextAttribute(hConsole, 4);

cout << "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*CRICK BUZZ\*\*\*\*\*\*\*\*\*\*" << endl;

Sleep(1000);

SetConsoleTextAttribute(hConsole, 2);

cout << "\t Group Member \t" << endl;

cout << "\t Muhammad Umer \t 21F-9291 " << endl;

cout << "\t Muhammad Ahmad 21F-9195 " << endl;

SetConsoleTextAttribute(hConsole, 6);

Player\* Player1[2];

Team team1[2];

Team t1obj;

Match M1;

for (int i = 0; i < 2; i++) {

Player1[i] = &team1[i];

}

Player\* Player2[2];

Team team2[2];

Team t2obj;

Match M2;

for (int i = 0; i < 2; i++) {

Player2[i] = &team2[i];

}

string user\_name, user\_pass;

cout << "ENTER USERNAME : ";

cin >> team1[0].AdminUsername;

team1[0].setAdmin\_Password(team1[0].AdminUsername);

cout << "ENTER PASWORD : ";

cin >> team1[0].AdminPassword;

team1[0].setAdmin\_Password(team1[0].AdminPassword);

if (team1[0].AdminUsername == "a" && team1[0].AdminPassword == "1") {

cout << "APPROVED " << endl;

int choice;

do {

cout << "\*\*\*\*\*\*\*\*\*\*CRICK BUZZ APPLICATION\*\*\*\*\*\*\*\*\*\*" << endl;

cout << "1- To Add Player " << endl;

cout << "2- To Remove Player " << endl;

cout << "3- To Search Player " << endl;

cout << "4- To Update Player " << endl;

cout << "5- TO Enter Team " << endl;

cout << "6- For To Update Captian " << endl;

cout << "7- For To Update Coach " << endl;

cout << "8- To Display Team " <<endl;

cout << "9- For To Conduct A match" << endl;

cout << "10- For To Schedule Match" << endl;

cout << "11- To Update World Recoad"<< endl;

cout << "12- To Update Team Ranking "<< endl;

cout << "13- To UpComming Matches" << endl;

cout << "14- For To Recent Matches "<< endl;

cout << "15- Terminate program" << endl;

cout << "Select Option : ";

cin >> choice;

switch (choice) {

case 1:

{

cout << "\*\*\*\*\*\*\*\*\*\*Function to ADD PLAYERS\*\*\*\*\*\*\*\*\*\* " << endl;

cout << "For To ADD Player In Team 1 PRESS ->1 " << endl;

cout << "For To ADD Player In Team 2 PRESS ->2 " << endl;

int TempA;

cout << "Select Option : ";

cin >> TempA;

if (TempA == 1) {

cout << " \*\*\*\*\*Team 1 Player\*\*\*\*\* " << endl;

for (int i = 0; i < 2; i++) {

cout << "Player -> " << i + 1 << endl;

Player1[i]->add\_Player();

}

}

else if (TempA == 2) {

cout << " \*\*\*\*\*Team 2 Player\*\*\*\*\* " << endl;

for (int i = 0; i < 2; i++) {

cout << "Player -> " << i + 1 << endl;

Player2[i]->add\_Player();

}

}

else {

cout << "Invalid Input" << endl;

}

}

break;

case 2:

cout << "\*\*\*\*\*\*\*\*\*\*Function to Remove PLAYERS\*\*\*\*\*\*\*\*\*\* " << endl;

{

cout << "For To Remove Player In Team 1 PRESS ->1 " << endl;

cout << "For To Remove Player In Team 2 PRESS ->2 " << endl;

int TempR;

cout << "Select Option : ";

cin >> TempR;

if (TempR == 1) {

cout << " \* \*\*\*\*Team 1 Player \* \*\*\*\*" << endl;

string name;

bool flag = false;

cout << "Enter Player Name To Remove : ";

cin >> name;

for (int i = 0; i < 2; i++) {

if (Player1[i]->Name == name) {

Player1[i]->remove\_Player();

flag = true;

}

}

if (flag == false) {

cout << "Player Not Found " <<endl;

}

}

if (TempR == 2) {

cout << " \* \*\*\*\*Team 2 Player \* \*\*\*\*" << endl ;

string name;

bool flag = false;

cout << "Enter Player Name To Remove : ";

cin >> name;

for (int i = 0; i < 2; i++) {

if (Player2[i]->Name == name) {

Player2[i]->remove\_Player();

flag = true;

}

}

if (flag == false) {

cout << "Player Not Found " << endl;

}

}

}

break;

case 3:

cout << "\*\*\*\*\*\*\*\*\*\*Function For TO Search PLAYERS\*\*\*\*\*\*\*\*\*\* " << endl;

{

cout << "For To Search Player In Team 1 PRESS ->1 " << endl;

cout << "For To Search Player In Team 2 PRESS ->2 " << endl;

int TempS;

cout << "Select Option : ";

cin >> TempS;

if (TempS == 1) {

cout << " \* \*\*\*\*Team 1 Player \* \*\*\*\*" << endl;

string name;

bool flag = false;

cout << "Enter Player Name For Search : ";

cin >> name;

for (int i = 0; i < 2; i++) {

if (Player1[i]->Name == name) {

Player1[i]->search\_Player();

flag = true;

}

}

if (flag == false) {

cout << "Player Not Found " << endl;

}

}

else if (TempS == 2) {

cout << " \* \*\*\*\*Team 2 Player \* \*\*\*\*" << endl;

string name;

bool flag = false;

cout << "Enter Player Name For Search : ";

cin >> name;

for (int i = 0; i < 2; i++) {

if (Player2[i]->Name == name) {

Player2[i]->search\_Player();

flag = true;

}

}

if (flag == false) {

cout << "Player Not Found " << endl;

}

}

}

break;

case 4:

cout << "\*\*\*\*\*\*\*\*\*\*Function For TO UpDate PLAYERS\*\*\*\*\*\*\*\*\*\* " << endl;

{

cout << "For To UpDate Player In Team 1 PRESS ->1 " << endl;

cout << "For To UpDate Player In Team 2 PRESS ->2 " << endl;

int TempUP;

cout << "Select Option : ";

cin >> TempUP;

if (TempUP == 1) {

string name;

bool flag = false;

cout << " \* \*\*\*\*Team 1 Player \* \*\*\*\*" << endl;

cout << "Enter Name to UpDate Player : ";

cin >> name;

for (int i = 0; i < 2; i++) {

if (Player1[i]->Name == name) {

Player1[i]->update\_Player();

flag = true;

}

}

if (flag == false) {

cout << "Name not Found" << endl;

}

}

else if (TempUP == 2) {

string name;

bool flag = false;

cout << " \* \*\*\*\*Team 2 Player \* \*\*\*\*" << endl;

cout << "Enter Name to UpDate Player : ";

cin >> name;

for (int i = 0; i < 2; i++) {

if (Player2[i]->Name == name) {

Player2[i]->update\_Player();

flag = true;

}

}

if (flag == false) {

cout << "Name not Found" << endl;

}

}

}

break;

case 5:

{

cout << "\*\*\*\*\*\*\*\*\*\*Function For Team Information\*\*\*\*\*\*\*\*\*\* " << endl;

cout << "For Team 1 Data PRESS ->1 " << endl;

cout << "For Team 2 Data PRESS ->2 " << endl;

int TempTD;

cout << "Select Option : ";

cin >> TempTD;

if (TempTD == 1) {

cout << "Enter Information of 1st Team : " << endl;

t1obj.get\_information();

}

if (TempTD == 2) {

cout << "Enter Information Of 2nd Team : " << endl;

t2obj.get\_information();

}

}

break;

case 6:

{

cout << "\*\*\*\*\*\*\*\*\*\*Function For to UpDate Captain\*\*\*\*\*\*\*\*\*\* " << endl;

cout << "For To UpDate Captain In Team 1 PRESS ->1 " << endl;

cout << "For To UpDate Captain In Team 2 PRESS ->2 " << endl;

int TempC;

cout << "Select Option : ";

cin >> TempC;

if (TempC == 1) {

cout << "Team 1 Captain Update " << endl;

t1obj.updateCaptain();

}

if (TempC == 2) {

cout << "Team 2 Captain Update " << endl;

t2obj.updateCaptain();

}

}

break;

case 7:

{

cout << "\*\*\*\*\*\*\*\*\*\*Function For to UpDate Coach\*\*\*\*\*\*\*\*\*\* " << endl;

cout << "For To UpDate Coach In Team 1 PRESS ->1 " << endl;

cout << "For To UpDate Coach In Team 2 PRESS ->2 " << endl;

int TempCo;

cout << "Select Option : ";

cin >> TempCo;

if (TempCo == 1) {

cout << "Team 1 Coach Update " << endl;

t1obj.updateCoach();

}

if (TempCo == 2) {

cout << "Team 2 Coach Update " << endl;

t2obj.updateCoach();

}

}

break;

case 8:

{

cout << "\*\*\*\*\*\*\*\*\*\*Function For to Display Team\*\*\*\*\*\*\*\*\*\* " << endl;

cout << "For To Disply Team 1 PRESS ->1 " << endl;

cout << "For To DisplyTeam 2 PRESS ->2 " << endl;

int TempDT;

cout << "Select Option : ";

cin >> TempDT;

if (TempDT == 1) {

t1obj.displayTeam();

for (int i = 0; i < 2; i++) {

int n = 1;

cout << "Player Number : " << n << Player1[i]->Name << endl;

n++;

}

}

else if (TempDT == 2) {

t2obj.displayTeam();

for (int i = 0; i < 2; i++) {

int n = 1;

cout << "Player Number : " << n << Player2[i]->Name << endl;

n++;

}

}

}

break;

case 9:

M1.conductMatch();

break;

case 10:

M1.scheduleMatch();

break;

case 11:

updateWorldRecords(M1);

break;

case 12:

{

cout << "For To UpDate TeamRanking In Team 1 PRESS ->1 " << endl;

cout << "For To UpDate TeamRanking In Team 2 PRESS ->2 " << endl;

int TempTR;

cout << "Select Option : ";

cin >> TempTR;

if (TempTR == 1) {

updateTeamRanking(M1);

}

if (TempTR == 2) {

updateTeamRanking(M2);

}

}

break;

case 13:

displayUpcomingMatches(M1);

break;

case 14:

displayRecentMatches(M1);

break;

case 15:

cout << "Thanks for Using Our Application" << endl;

break;

default:

cout << "Incorrect Choice" << endl;

}

system ("pause");

system("cls");

} while (choice != 15);

}

else {

cout << "Incorrect Password " << endl;

}

return 0;

}











