**ASSIGNMENT**

**OOP**

Name : Muhammad Istafa Malik

Section : BS(CS)19-A

ROLL : P19-0033

E-mail : p190033@nu.edu.pk

Task

#include<iostream>

#include<string>

using namespace std;

struct players

{

string fn;

string ln;

int rank,goalscored,age;

}

P1;

void assign(players P1[],int &i,int& entry)

{

if(entry==1)

{cout<<"Enter a new First Name ";

cin>>P1[i].fn;

cout<<"Successfully Updated \n";}

if(entry==2)

{cout<<"Enter a new Last Name ";

cin>>P1[i].ln;

cout<<"Successfully Updated \n";}

if(entry==3)

{

cout<<"Enter a new Age ";

cin>>P1[i].age;

cout<<"Successfully Updated \n";}

if(entry==4)

{

cout<<"Enter a new Rank ";

cin>>P1[i].rank;

cout<<"Successfully Updated \n";}

if(entry==5)

{

cout<<"Enter a New No. of Goals Scored ";

cin>>P1[i].goalscored;

cout<<"Successfully Updated \n";}

cout<<endl;}

void New\_player(players P1[],int \*n)

{

cout<<"Enter The First name of the Player ";

cin>>P1[\*n].fn;

cout<<"Enter The Last name of the Player ";

cin>>P1[\*n].ln;

cout<<"Enter The Age of the Player ";

cin>>P1[\*n].age;

cout<<"Enter The Rank of the Player ";

cin>>P1[\*n].rank;

cout<<"Enter The No. of Goals Scored By the "<<P1[\*n].fn<<" ";

cin>>P1[\*n].goalscored;

cout<<endl<<endl;}

void update(players P1[],int \*n)

{ string name,lname;

int entry,entry1,counter[5]={0,0,0,0,0};

cout<<"Enter num based on which entry of the player you want to change \n";

cout<<"1. For Changing First Name \n"<<"2. For Changing Last Name \n";

cout<<"3. For Changing Age \n"<<"4. For Changing Rank \n";

cout<<"5. For Changing No. of Goals Scored \n";

cin>>entry;

cout<<"Enter the First and Last Name of the Player Who's Record You want to Update ";

cin>>name;

cout<<"Now, Enter the Last Name ";

cin>>lname;

for(int i=0;i<\*n;i++)

{

if(name==P1[i].fn && lname==P1[i].ln) {

assign(P1,i,entry);

counter[1]++;}}

if(counter[1]!=1 )

{cout<<"No Player in the Given List has "<<name<<" "<<lname<<" as Their Name”;

cout<<endl<<"So, Kindly Enter the Rank of the Player Who's Record You want to Update ";

cin>>entry1;

for(int i=0;i<\*n;i++)

{

if(entry1==P1[i].rank)

{

assign(P1,i,entry);

counter[2]++;}}

if(counter[2]!=1)

{cout<<"No Player in the Given List has "<<entry1<<" as their rank \n";

cout<<"So, Kindly Enter the Age of the Player Who's Record You want to Update";

cin>>entry1;

for(int i=0;i<\*n;i++)

{if(entry1==P1[i].age)

{

assign(P1,i,entry);

counter[3]++;}}

if(counter[3]!=1 )

{ cout<<"No Player in the Given List has "<<entry1<<" as their age \n";

cout<<"So, Kindly Enter the No. of Goal scored by the Player Who's Record You want to Update ";

cin>>entry1;

for(int i=0;i<\*n;i++)

{if(entry1==P1[i].goalscored)

{

assign(P1,i,entry);

counter[4]++;}}

if(counter[4]!=1 && counter[3]!=1 && counter[2]!=1 && counter[1]!=1 && counter[0]!=1)

cout<<"Sorry, No Player Matches the Current Data ";}

}}cout<<endl<<endl;}

void search(players P1[],int \*n);

{

string name,lname;

cout<<"Enter the First and Last Name of the Player Who's Record You want to Search ";

cin>>name>>lname;

for(int i=0;i<\*n;i++)

{if(name==P1[i].fn && lname==P1[i].ln)

{

cout<<"First Name of Player is "<<P1[i].fn<<endl;

cout<<"Last Name of Player is "<<P1[i].ln<<endl;

cout<<"Age of Player is "<<P1[i].age<<endl;

cout<<"Rank of Player is "<<P1[i].rank<<endl;

cout<<"No. of Goals Scored By Player is "<<P1[i].goalscored<<endl;

}}cout<<endl<<endl;}

void display(players P1[],int \*n)

{

int i;

cout<<" Displaying the data of Players \n";

for(int i=0;i<\*n;i++)

{

cout<<"First Name of Player is "<<P1[i].fn<<endl;

cout<<"Last Name of Player is "<<P1[i].ln<<endl;

cout<<"Age of Player is "<<P1[i].age<<endl;

cout<<"Rank of Player is "<<P1[i].rank<<endl;

cout<<"No. of Goals Scored By Player is "<<P1[i].goalscored<<endl;

cout<<endl<<endl;

}}int main ()

{

int no,n1,counte=0;

int\* n=&n1,\*counter=&counte;

cout<<"Enter the No. of players you want to have in the Team ";

cin>>n1;

players P1[n1];

{

New\_player(P1,counter);

\*counter=\*counter+1;

}

do{cout<<"Enter the Desired Num according to the task you want to be performed"<<endl;

cout<<"1. Add a New Player "<<endl<<"2. Update a Player's Record "<<endl<<"3. Search For a Player "<<endl<<"4. Display the complete list of Players ";

cout<<endl<<"5. Exit the Program "<<endl;

cin>>no;

if(no==1 )

{

if(\*counter>=n1)

cout<<"No. of Players Exceed the given limit \n";

if(\*counter<n1)

{

New\_player(P1,counter);

\*counter=\*counter+1;

}}

if(no==2)

update(P1,n);

if(no==3)

search(P1,n);

if(no==4)

display(P1,n);

}while(no!=5);

return 0;

}

**Outputs:**







