#include<iostream>

#include<fstream>

#include<cstring>

using namespace std;

class tel

{

public:

int rollNo,roll1;

char name[10];

char div;

char address[20];

void accept()

{

cout<<"\n\tEnter Roll Number : ";

cin>>rollNo;

cout<<"\n\tEnter the Name : ";

cin>>name;

cout<<"\n\tEnter the Division:";

cin>>div;

cout<<"\n\tEnter the Address:";

cin>>address;

}

void accept2()

{

cout<<"\n\tEnter the Roll No. to modify : ";

cin>>rollNo;

}

void accept3()

{

cout<<"\n\tEnter the name to modify : ";

cin>>name;

}

int getRollNo()

{

return rollNo;

}

void show()

{

cout<<"\n\t"<<rollNo<<"\t\t"<<name<<"\t\t"<<div<<"\t\t"<<address;

}

};

int main()

{

int i,n,ch,ch1,rec,start,count,add,n1,add2,start2,n2,y,a,b,on,oname,add3,start3,n3,y1,add4,start4,n4;

char name[20],name2[20];

tel t1;

count=0;

fstream g,f;

do

{

cout<<"\n>>>>>>>>>>>>>>>>>>>>>>MENU<<<<<<<<<<<<<<<<<<<<";

cout<<"\n1.Insert and overwrite\n2.Show\n3.Search & Edit(number)\n4.Search & Edit(name)\n5.Search & Edit(onlynumber)\n6.Search & edit(only name)\n 7.Delete a Student Record\n 8.Exit\n\tEnter the Choice\t:";

cin>>ch;

switch(ch)

{

case 1:

f.open("StuRecord.txt",ios::out);

x:t1.accept();

f.write((char\*) &t1,(sizeof(t1)));

cout<<"\nDo you want to enter more records?\n1.Yes\n2.No";

cin>>ch1;

if(ch1==1)

goto x;

else

{

f.close();

break;

}

case 2:

f.open("StuRecord.txt",ios::in);

f.read((char\*) &t1,(sizeof(t1)));

//cout<<"\n\tRoll No.\t\tName \t\t Division \t\t Address";

while(f)

{

t1.show();

f.read((char\*) &t1,(sizeof(t1)));

}

f.close();

break;

case 3:

cout<<"\nEnter the roll number you want to find";

cin>>rec;

f.open("StuRecord.txt",ios::in|ios::out);

f.read((char\*)&t1,(sizeof(t1)));

while(f)

{

if(rec==t1.rollNo)

{

cout<<"\nRecord found";

add=f.tellg();

f.seekg(0,ios::beg);

start=f.tellg();

n1=(add-start)/(sizeof(t1));

f.seekp((n1-1)\*sizeof(t1),ios::beg);

t1.accept();

f.write((char\*) &t1,(sizeof(t1)));

f.close();

count++;

break;

}

f.read((char\*)&t1,(sizeof(t1)));

}

if(count==0)

cout<<"\nRecord not found";

f.close();

break;

case 4:

cout<<"\nEnter the name you want to find and edit";

cin>>name;

f.open("StuRecord.txt",ios::in|ios::out);

f.read((char\*)&t1,(sizeof(t1)));

while(f)

{

y=(strcmp(name,t1.name));

if(y==0)

{

cout<<"\nName found";

add2=f.tellg();

f.seekg(0,ios::beg);

start2=f.tellg();

n2=(add2-start2)/(sizeof(t1));

f.seekp((n2-1)\*sizeof(t1),ios::beg);

t1.accept();

f.write((char\*) &t1,(sizeof(t1)));

f.close();

break;

}

f.read((char\*)&t1,(sizeof(t1)));

}

break;

case 5:

cout<<"\n\tEnter the roll number you want to modify";

cin>>on;

f.open("StuRecord.txt",ios::in|ios::out);

f.read((char\*) &t1,(sizeof(t1)));

while(f)

{

if(on==t1.rollNo)

{

cout<<"\n\tNumber found";

add3=f.tellg();

f.seekg(0,ios::beg);

start3=f.tellg();

n3=(add3-start3)/(sizeof(t1));

f.seekp((n3-1)\*(sizeof(t1)),ios::beg);

t1.accept2();

f.write((char\*)&t1,(sizeof(t1)));

f.close();

break;

}

f.read((char\*)&t1,(sizeof(t1)));

}

break;

case 6:

cout<<"\nEnter the name you want to find and edit";

cin>>name2;

f.open("StuRecord.txt",ios::in|ios::out);

f.read((char\*)&t1,(sizeof(t1)));

while(f)

{

y1=(strcmp(name2,t1.name));

if(y1==0)

{

cout<<"\nName found";

add4=f.tellg();

f.seekg(0,ios::beg);

start4=f.tellg();

n4=(add4-start4)/(sizeof(t1));

f.seekp((n4-1)\*sizeof(t1),ios::beg);

t1.accept3();

f.write((char\*) &t1,(sizeof(t1)));

f.close();

break;

}

f.read((char\*)&t1,(sizeof(t1)));

}

break;

case 7:

int roll;

cout<<"Please Enter the Roll No. of Student Whose Info You Want to Delete: ";

cin>>roll;

f.open("StuRecord.txt",ios::in);

g.open("temp.txt",ios::out);

f.read((char \*)&t1,sizeof(t1));

while(!f.eof())

{

if (t1.getRollNo() != roll)

g.write((char \*)&t1,sizeof(t1));

f.read((char \*)&t1,sizeof(t1));

}

cout << "The record with the roll no. " << roll << " has been deleted " << endl;

f.close();

g.close();

remove("StuRecord.txt");

rename("temp.txt","StuRecord.txt");

break;

case 8:

cout<<"\n\tThank you";

break;

}

}while(ch!=8);

}