#include<iostream>

#include<fstream>

#include<cstdio>

using namespace std;

class student

{

int admno;

char name[50];

char addr[50];

char divv[50];

public:

void setdata()

{

cout<<"\nEnter roll number of the student ";

cin>>admno;

cout<<"\nEnter name of the student ";

cin>>name;

cout<<"\nEnter the division of the student ";

cin>>divv;

cout<<"\nEnter the address of the student ";

cin>>addr;

}

void showdata ()

{

cout<< "\n\*Student Roll No: "<<admno<<endl;

cout<<"\*Student Name: "<<name<<endl;

cout<<"\*Student Division: "<<divv<<endl;

cout<<"\*Student Address: "<<addr<<endl;

}

int retadmno()

{

return admno;

}

};

void write\_record()

{

ofstream outfile;

outfile.open("student.dat",ios::binary | ios::app);

student obj;

obj.setdata();

outfile.write((char\*)&obj, sizeof(obj));

outfile.close();

}

void display()

{

ifstream infile;

infile.open("student.dat", ios::binary );

student obj;

while(infile.read((char\*)&obj, sizeof(obj)))

{

obj.showdata();

}

infile.close();

}

void search(int n)

{

ifstream infile;

infile.open("student.dat", ios::binary);

int flag=0;

student obj;

while(infile.read((char\*)&obj, sizeof(obj)))

{

if(obj.retadmno()==n)

{

obj.showdata();

flag=1;

break;

}

}

if (flag==0)

{

cout<<"\nRecord not found "<<endl;

}

infile.close();

}

void delete\_record(int n)

{

student obj;

ifstream infile;

infile.open("student.dat", ios::binary);

ofstream outfile;

outfile.open("temp.dat",ios::out | ios::binary);

while(infile.read((char\*)&obj, sizeof(obj)))

{

if (obj.retadmno()!=n)

{

outfile.write((char\*)&obj, sizeof(obj));

}

}

infile.close(); outfile.close();

remove("student.dat");

rename("temp.dat","student.dat");

}

int main()

{

int ch;

do {

cout<<"\n\n\n\*\*\*\*File Operations\*\*\* "<<endl;

cout<<"\n1.Write \n2.Display \n3.Search \n4.Delete "<<endl;

cout<<"Enter your choice "; cin>>ch;

switch(ch)

{

case 1:

int n;

cout<<"\nEnter number of records ";cin>>n;

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

{

write\_record();

}

break;

case 2:

cout<<"\nList of records "<<endl;

display();

break;

case 3:

int s;

cout<<"\nEnter the student's roll number you want to search for :";cin>>s;

search(s);

break;

case 4:

cout<<"\nEnter the number to be deleted ";

int d;

cin>>d;

delete\_record(d);

break;

default:

cout<<"Wrong choice ";

break;

}

}while(ch!=5);

return 0;

}







