#include<iostream>

#include<fstream>

#include<string.h>

using namespace std;

class student

{

typedef struct stud

{

int roll;

char name[10];

char div;

char add[10];

}stud;

stud rec;

public:

void create();

void display();

int search();

void Delete();

};

void student::create()

{

char ans;

ofstream fout;

fout.open("stud.dat",ios::out|ios::binary);

do

{

cout<<"\n\tEnter Roll No of Student : ";

cin>>rec.roll;

cout<<"\n\tEnter a Name of Student : ";

cin>>rec.name;

cout<<"\n\tEnter a Division of Student : ";

cin>>rec.div;

cout<<"\n\tEnter a Address of Student : ";

cin>>rec.add;

fout.write((char \*)&rec,sizeof(stud))<<flush;

cout<<"\n\tDo You Want to Add More Records: ";

cin>>ans;

}while(ans=='y'||ans=='Y');

fout.close();

}

void student::display()

{

ifstream fin;

fin.open("stud.dat",ios::in|ios::binary);

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

cout<<"\n\tThe Content of File are:\n";

cout<<"\n\tRoll\tName\tDiv\tAddress";

while(fin.read((char \*)&rec,sizeof(stud)))

{

if(rec.roll!=-1)

cout<<"\n\t"<<rec.roll<<"\t"<<rec.name<<"\t"<<rec.div<<"\t"<<rec.add;

}

fin.close();

}

int student::search()

{

int r,i=0;

ifstream fin;

fin.open("stud.dat",ios::in|ios::binary);

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

cout<<"\n\tEnter a Roll No: ";

cin>>r;

while(fin.read((char \*)&rec,sizeof(stud)))

{

if(rec.roll==r)

{

cout<<"\n\tRecord Found...\n";

cout<<"\n\tRoll\tName\tDiv\tAddress";

cout<<"\n\t"<<rec.roll<<"\t"<<rec.name<<"\t"<<rec.div<<"\t"<<rec.add;

return i;

}

i++;

}

fin.close();

return 0;

}

void student::Delete()

{

int pos;

pos=search();

fstream f;

f.open("stud.dat",ios::in|ios::out|ios::binary);

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

if(pos==0)

{

cout<<"\n\tRecord Not Found";

return;

}

int offset=pos\*sizeof(stud);

f.seekp(offset);

rec.roll=-1;

strcpy(rec.name,"NULL");

rec.div='N';

strcpy(rec.add,"NULL");

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

f.seekg(0);

f.close();

cout<<"\n\tRecord Deleted";

}

int main()

{

student obj;

int ch,key;

char ans;

do

{

cout<<"\n\t\*\*\*\*\* Student Information \*\*\*\*\*";

cout<<"\n\t1. Create\n\t2. Display\n\t3. Delete\n\t4. Search\n\t5. Exit";

cout<<"\n\t..... Enter Your Choice: ";

cin>>ch;

switch(ch)

{

case 1: obj.create();

break;

case 2: obj.display();

break;

case 3: obj.Delete();

break;

case 4: key=obj.search();

if(key==0)

cout<<"\n\tRecord Not Found...\n";

break;

case 5:

break;

}

cout<<"\n\t..... Do You Want to Continue in Main Menu: ";

cin>>ans;

}while(ans=='y'||ans=='Y');

return 1;

}