#include<iostream>

#include<fstream>

#include<stdio.h>

using namespace std;

typedef struct student

{

int roll;

char a,name[20],add[30];

}stud;

void create();

void display();

void insert();

void search(int key);

void delete1(int key);

void modify(int key);

int main()

{int ch,x;

do

{

cout<<"\n\t\*\*\*MENU\*\*\*\n1.Accept\n2.Display\n3.Insert\n4.Search\n5.Delete\n6.Modify\n7.Exit\nEnter your choice=";

cin>>ch;

switch(ch)

{

case 1:create();

break;

case 2:display();

break;

case 3:insert();

break;

case 4: cout<<"Enter roll no to search=";

cin>>x;

search(x);

break;

case 5:cout<<"Enter roll no to delete=";

cin>>x;

delete1(x);

break;

case 6:cout<<"Enter roll no to modify=";

cin>>x;

modify(x);

break;

}

}while(ch!=7);

return 0;

}

ifstream fin;

ofstream fout;

fstream fm;

int n;

char fname[20];

void create()

{int i;

stud s;

cout<<"Enter name of the file=";

cin>>fname;

fm.open(fname,ios::out);

cout<<"\nEnter no. of records:=";

cin>>n;

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

{

cout<<"Enter roll no=";

cin>>s.roll;

cout<<"Enter name=";

cin>>s.name;

cout<<"Enter division=";

cin>>s.a;

cout<<"Enter address=";

cin>>s.add;

fm.write((char\*)&s,sizeof(s));

}

fm.close();

}//create

void display()

{int i;

stud s;

fin.open(fname);

cout<<"\nROLL NO\tNAME\tDIV\tADDRESS";

// while(!fin.eof())

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

{

fin.read((char\*)&s,sizeof(s));

cout<<"\n"<<s.roll<<"\t"<<s.name<<"\t"<<s.a<<"\t"<<s.add;

}

fin.close();

}//display

void insert()

{stud s;

fout.open(fname,ios::app);

cout<<"Enter roll no=";

cin>>s.roll;

cout<<"Enter name=";

cin>>s.name;

cout<<"Enter division=";

cin>>s.a;

cout<<"Enter address=";

cin>>s.add;

fout.write((char\*)&s,sizeof(s));

n++;

fout.close();

}

void search(int key)

{ stud s;

int flag=0,i;

fin.open(fname);

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

{

fin.read((char \*)&s,sizeof(s));

if(s.roll==key)

{

cout<<"\nRecord is present their corresponding details are:\nRoll no=";

cout<<s.roll<<"\nName="<<s.name<<"\nDivision="<<s.a<<"\nAddress="<<s.add;

flag=1;

}

}

if(flag==0)

cout<<"\nRoll no.= "<<key<<" is not present in the record";

fin.close();

}

void delete1(int key)

{ stud s;

int flag=0,i;

fin.open(fname);

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

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

{

fin.read((char \*)&s,sizeof(s));

if(s.roll==key)

{ cout<<"\nRecord deleted successfully";

flag=1;

}

else

{

fout.write((char \*)&s,sizeof(s));

}

}

if(flag==0)

cout<<"\nRoll no.= "<<key<<" is not present in the record";

else

n--;

fin.close();

fout.close();

remove(fname);

rename("temp.txt",fname);

}

void modify(int key)

{ stud s;

int flag=0,i;

fin.open(fname);

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

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

{

fin.read((char \*)&s,sizeof(s));

if(s.roll==key)

{

cout<<"Enter roll no=";

cin>>s.roll;

cout<<"Enter name=";

cin>>s.name;

cout<<"Enter division=";

cin>>s.a;

cout<<"Enter address=";

cin>>s.add;

fout.write((char\*)&s,sizeof(s));

flag=1;

}

else

{

fout.write((char \*)&s,sizeof(s));

}

}

if(flag==0)

cout<<"\nRoll no.= "<<key<<" is not present in the record";

fin.close();

fout.close();

remove(fname);

rename("temp.txt",fname);

}