

Student Record System

Code

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#include <iostream>
#include <cstdio>
#include <cstring>
#include <cstdlib>
#include <conio.h>
using namespace std;
struct student
{
    char name[50],fathr_name[50];
    char dept[20];
    int sess,roll;
    char sect;
};
int main()
{
    struct student e;
    FILE *fp, *ft;
    char another;
    char nameS[50],deptS[20];
    int rollS,sessS,choice;
    long int reccsize;
    fp=fopen("users.txt","r+");
    if (fp == NULL)
    {
        fp = fopen("users.txt","w+");
        if (fp==NULL)
        {
            cout<<"Cannot open file";
            return 0;
        }
    }
    reccsize = sizeof(e);
    another='Y';
    while(another=='Y'|another=='y')
    {
        system("cls");
        cout << "\n\n\t\t=====WELCOME TO STUDENT RECORD SYSTEM =====";
        cout << "\n\n\n";
        cout << "\n \t\t\t 1. Add   Records";
        cout << "\n \t\t\t 2. Search by name";
        cout << "\n \t\t\t 3. Search by roll no.";
        cout << "\n \t\t\t 4. Search by dept";
        cout << "\n \t\t\t 5. Search by session";
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cout << "\n \t\t\t 6. Modify Records";
cout << "\n \t\t\t 7. Delete Records";
cout << "\n \t\t\t 8. Exit  Program";
cout << "\n\n";
cout << "\t\t\t Select Your Choice :=> ";
fflush(stdin);
cin>>choice;// choice = getchar();
switch(choice)
{
case 1 :
    fflush(stdin);
    fseek(fp,0,SEEK_END);
    another ='Y';
    while(another == 'Y' || another == 'y')
    {
        system("cls");
        cout << "\nEnter student Name : ";
        fflush(stdin);
        gets(e.name);
        cout << "\nEnter student father Name : ";
        gets(e.fathr_name);
        cout << "\nEnter student dept  : ";
        gets(e.dept);
        cout << "\nEnter student session  : ";
        cin>>e.sess;
        cout << "\nEnter student roll no.  : ";
        cin >> e.roll;
        cout << "\nEnter student section  : ";
        cin>>e.sect;
        fwrite(&e,recsize,1,fp);
        cout << "\n\nRecord is added successfully !";
        cout << "\n\nDo you want to enter another record ?? (Y/N)=> ";
        fflush(stdin);
        another = getchar();
    }
    break;
case 2:
    system("cls");
    cout << "=== View the Records in the Database ===";
    cout << "\n\n";
    another='Y';
    while(another=='Y' | another=='y')
    {
        int isfound=0;
        cout<<"\nEnter name of student to search:";
        fflush(stdin);
        gets(nameS);
        rewind(fp);

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while (fread(&e,recsize,1,fp) == 1)
{
    if(strcmp(nameS,e.name)==0)
    {
        isfound=1;
        break;
    }
}
if(isfound==1)
{
    cout << "\nName : "<<e.name;
    cout << "\nFthaer Name : "<<e.fathr_name;
    cout << "\nDepartment : "<<e.dept;
    cout << "\nStudent session:"<<e.sess;
    cout << "\nstudent roll no.:"<<e.roll;
    cout << "\nstudent section:"<<e.sect;
}
else
{
    cout<<"\n\n Sorry ! Record not found !";
}
cout<<"\n\nDo you want to make another search?? (Y/N)=>";
fflush(stdin);
another=getchar();
}
cout << "\n\n";
break;
case 3 :
system("cls");
another = 'Y';
while (another == 'Y' || another == 'y')
{
    int isfound=0;
    cout << "\nEnter the roll no. of the student to search : ";
    fflush(stdin);
    cin >> rollS;
    rewind(fp);
    while (fread(&e,recsize,1,fp) == 1)
    {
        if (rollS==e.roll)
        {
            isfound=1;
            break;
        }
    }
    if(isfound==1)
    {
        cout << "\nName : "<<e.name;

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        cout << "\nFthaer Name : "<<e.fathr_name;
        cout << "\nDepartment : "<<e.dept;
        cout << "\nStudent session:"<<e.sess;
        cout << "\nstudent roll no.:"<<e.roll;
        cout << "\nstudent section:"<<e.sect;
    }
    else
    {
        cout<<"\n\nSorry ! Record not found !";
    }
    cout << "\n\nDo u want to perform another search ?? (Y/N)=> ";
    fflush(stdin);
    another = getchar();
}
break;
case 4:
    system("cls");
    another = 'Y';
    while (another == 'Y' || another == 'y')
    {
        int isfound=0;
        cout << "\nEnter the Department of student to search : ";
        fflush(stdin);
        gets(deptS);
        rewind(fp);
        while (fread (&e, reccsize,1,fp) == 1)
        {
            if (strcmp(deptS,e.dept) == 0)
            {
                isfound=1;
                break;
            }
        }

        if(isfound==1)
        {
            cout << "\nName : "<<e.name;
            cout << "\nFthaer Name : "<<e.fathr_name;
            cout << "\nDepartment : "<<e.dept;
            cout << "\nStudent session:"<<e.sess;
            cout << "\nstudent roll no.:"<<e.roll;
            cout << "\nstudent section:"<<e.sect;
        }
        else
        {
            cout<<"\n\nSorry ! Record not found !";
        }
        cout << "\n\nDo you want to perform another search ?? (Y/N)=> ";
    }

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        fflush(stdin);
        another = getchar();
    }
    break;
case 5:
    system("cls");
    another = 'Y';
    while (another == 'Y' || another == 'y')
    {
        int isfound=0;
        cout << "\nEnter the session of student to search : ";
        fflush(stdin);
        cin >> sessS;
        rewind(fp);
        while (fread (&e, reccsize,1,fp) == 1)
        {
            if(sessS==e.sess)
            {
                isfound=1;
                break;
            }
        }
        if(isfound==1)
        {
            cout << "\nName : "<<e.name;
            cout << "\nFthaer Name : "<<e.fathr_name;
            cout << "\nDepartment : "<<e.dept;
            cout << "\nStudent session:"<<e.sess;
            cout << "\nstudent roll no.:"<<e.roll;
            cout << "\nstudent section:"<<e.sect;
        }
        else
        {
            cout<<"\n\nSorry ! Record not found !";
        }
        cout << "\n\nDo you want to perform another search (Y/N)=> ";
        fflush(stdin);
        another = getchar();
    }
    break;
case 6:
    system("cls");
    another = 'Y';
    while (another == 'Y' || another == 'y')
    {
        int isfound=0;
        cout << "\nEnter name of the student to modify his data : ";
        fflush(stdin);

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gets(nameS);
rewind(fp);
while (fread(&e,recsize,1,fp) == 1)
{
    if (strcmp(nameS,e.name) == 0)
    {
        isfound=1;
        break;
    }
}
if(isfound==1)
{
    cout << "\nEnter the new Name :";
    gets(e.name);
    cout << "\nFthaer Name :";
    gets(e.fathr_name);
    cout << "\nEnter new Department : ";
    gets(e.dept);
    cout << "\nEnter new session:";
    cin>>e.sess;
    cout << "\nEnter new student roll no.:";
    cin>>e.roll;
    cout << "\nEnter new student section:";
    cin>>e.sect;
    fseek(fp,- recsize,SEEK_CUR);
    fwrite(&e,recsize,1,fp);
}
else
{
    cout<<"\n\nSorry ! Record not found !";
    goto ag;
}
cout << "\n\nReocrd is modified successfully !";
ag: cout << "\n\n Do you want to modify another record ?? (Y/N)=> ";
fflush(stdin);
another = getchar();
}
break;
case 7:
    system("cls");
    another = 'Y';
    while (another == 'Y' || another == 'y')
    {
        int i;
        cout << "\n Enter name of the student to delete : ";
        fflush(stdin);
        gets(nameS);
        ft = fopen("temp.dat", "w+");
    }

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rewind(fp);
i=strcmp(nameS,e.name);
if(i==0)
{
    cout<<"\n\nRecord found !";
    while (fread (&e, recsize,1,fp) == 1)
    {
        if (strcmp(nameS,e.name) != 0)
        {
            fwrite(&e,recsize,1,ft);
        }
    }
}
else
{
    cout<<"\n\nSorry ! Record not found !";
    goto again;
}
fclose(fp);
fclose(ft);
remove("users.txt");
rename("temp.dat","users.txt");
fp=fopen("users.txt","r+");
cout <<"\n\nRecord is deleted successfully !";
again:cout << "\n\nDo you want to delete another record ?? (Y/N)=> ";
fflush(stdin);
another = getchar();
}
break;
case 8:
    fclose(fp);
    cout << "\n\n";
    cout << "\t\t\t THANK YOU FOR USING !";
    cout << "\n\n";
    exit(0);
default:
    cout<<"\n\t\t\tSorry ! Option is not available.";
    break;
}
cout<<"\n\n\t\t\tDO YOU WANT TO USE AGAIN ?? (Y/N)==> ";
fflush(stdin);
another=getchar();
}
cout << "\n\t\t\t THANK YOU FOR USING !";
cout<<endl<<endl;
system("pause");
return 0;
}

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