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#include<iostream>
#include<fstream>
#include<cstring>
using namespace std;
class Student{
    int Size=0;
    int RollNo;
    char Name[20];
    char div;
    float Percentage;
public:
    void Getdata();
    void Putdata();
    void DeleteData(int,Student[]);
};

void Student::Getdata(){
    cout<<"\nEnter The Details Of Students";
    cout<<"\nEnter the Roll No.";
    cin>>RollNo;
    cout<<"\nEnter the Percentage";
    cin>>Percentage;
    cout<<"\nEnter the Division";
    cin>>div;
    cout<<"\nEnter the Name";
    cin>>Name;
}

void Student::Putdata(){
    cout << "\nRoll No. :: " << RollNo << endl;
    cout << "\nName :: " << Name<< endl;
    cout << "\nMarks :: " << Percentage << endl;
    cout << "\nDivision :: " << div << endl;
}

void Student::DeleteData(int index,Student s[10]){
    cout<<"\n Deletion... ";
    fstream file;
    file.open("Database.txt",ios::out);
    file.seekg(0,ios::beg);
    int offset=index*sizeof(s[index]);
    file.seekp(offset);
    strcpy(s[index].Name,"--");
    s[index].RollNo=-1;
    s[index].div='-';
    s[index].Percentage=0.00;
    file.write((char *)&s[index],sizeof(s[index]))<<flush;
}

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        file.seekg(0);
        file.close();
        cout<<"\nRecord Has Been Deleted !!!";
    }
int main(){
    fstream file;
    int index=0;
    int n;
    int cases;
    char ch;

    cout<<"\nHow Many Students Are In Your Classroom";
    cin>>n;
    Student s[n];
    do
    {
        cout<<"\n1.Insert\n2.Show\n3.Delete";
        cin>>cases;
        switch(cases){
            case 1: file.open("Database.txt", ios :: out);
                    for(int i=0;i<n;i++){
                        s[i].Getdata();
                        file.write((char *)&s[i], sizeof(s[i]));
                    }
                    file.close();
                    break;

            case 2: file.open("Database.txt", ios :: in); // open file for reading
g
                    cout << "\nReading Student information to the file :-
" << endl;

                    for (int i = 0; i < n; i++){
                        // read an object from a file
                        file.read((char *)&s[i], sizeof(s[i]));
                        s[i].Putdata();
                    }
                    file.close(); // close the file
                    break;

            case 3: cout<<"\nDelete Operation ";
                    cout<<"\nEnter The Position Of Data Yo Wants To Delete";
                    cin>>index;
                    if(index>n){
                        cout<<"\nInvalid Position ";
                    }else{

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        s[index].DeleteData(index,s);
    }
    file.close();
    break;
}
cout<<"\ncontinue?";
cin>>ch;
} while (ch=='y' || ch=='Y');
return 0;
}

```

Output:-

How Many Students Are In Your Classroom3

1.Insert

2.Show

3.Delete1

Enter The Details Of Students

Enter the Roll No.1

Enter the Percentage89

Enter the DivisionA

Enter the NameUlkes

Enter The Details Of Students

Enter the Roll No.2

Enter the Percentage89

Enter the DivisionA

Enter the NameKartik

Enter The Details Of Students

Enter the Roll No.3

Enter the Percentage89

Enter the DivisionA

Enter the NameSujit

continue?y

1.Insert

2.Show

3.Delete2

Reading Student information to the file :-

Roll No. :: 1

Name :: Ulkesh

Marks :: 89

Division :: A

Roll No. :: 2

Name :: Kartik

Marks :: 89

Division :: A

Roll No. :: 3

Name :: Sujit

Marks :: 89

Division :: A

continue?y

1.Insert

2.Show

3.Delete3

Delete Operation

Enter The Position Of Data Yo Wants To Delete1

Deletion...

Record Has Been Deleted !!!

continue?y

1.Insert

2.Show

3.Delete2

Reading Student information to the file :-

Roll No. :: -1

Name ::

Marks :: 0.00

Division ::

Roll No. :: 2

Name :: Kartik

Marks :: 89

Division :: A

Roll No. :: 3

Name :: Sujit

Marks :: 89

Division :: A

continue?y

1.Insert

2.Show

3.Delete3

Delete Operation

Enter The Position Of Data Yo Wants To Delete3

Deletion...

Record Has Been Deleted !!!

c:\Projects\Lab Assignments\Group F>