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Practical No. 11

```
#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  Name of Student :";
                cin>>rec.name;
                cout<<"\n\tEnter  Division of Student :";
                cin>>rec.div;
                cout<<"\n\tEnter  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');
```

```cpp
                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);
```

```cpp
            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;
```

}
Output:
***** Student Information *****
1. Create
2. Display
3. Delete
4. Search
5. Exit
..... Enter Your Choice: 1
Enter Roll no of Student :1
Enter Name of Student :Om
Enter Division of Student :A
Enter Address of Student :Nashik
Do you want to add more Records :y
Enter Roll no of Student :2
Enter Name of Student : Aditya
Enter Division of Student :C
Enter Address of Student :Pune
Do you want to add more Records :n
..... Do You Want to Continue in Main Menu: y

***** Student Information *****
1. Create
2. Display
3. Delete
4. Search
5. Exit
..... Enter Your Choice: 2
The Content of File are:

Roll	Name	Div	Address
1	Om	A	Nashik
2	Aditya	C	Pune

..... Do You Want to Continue in Main Menu: y

***** Student Information *****
1. Create
2. Display
3. Delete
4. Search
5. Exit
..... Enter Your Choice: 3
Enter a Roll No :1
Record Found...

Roll	Name	Div	Address
1	Om	A	Nashik

..... Do You Want to Continue in Main Menu: y

```
***** Student Information *****
1. Create
2. Display
3. Delete
4. Search
5. Exit
..... Enter Your Choice: 3
Enter a Roll No :2
Record Found...
Roll    Name Div    Address
2       Aditya C        Pune
Record Deleted
..... Do You Want to Continue in Main Menu: y

***** Student Information *****
1. Create
2. Display
3. Delete
4. Search
5. Exit
..... Enter Your Choice: 2
The Content of File are:
Roll    Name Div    Address
1       Om    A      Nashik
..... Do You Want to Continue in Main Menu: y

***** Student Information *****
1. Create
2. Display
3. Delete
4. Search
5. Exit
..... Enter Your Choice: 5
..... Do You Want to Continue in Main Menu:
```