

Practical-11(F-23)

Problem Statement:

Department maintains a student information. The file contains roll number, name, division and address. Allow user to add, delete information of student. Display information of particular employee. If record of student does not exist an appropriate message is displayed. If it is, then the system displays the student details. Use sequential file to main the data.

Code:

```
#include<iostream>
#include<fstream>
#include<string.h>
using namespace std;

struct stud
{
    int roll;
    char name[10];
    char div;
    char add[10];
}rec;
class student
{
    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==-1)
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 : 26

Enter a Name of Student : Samradni

Enter a Division of Student : B

Enter a Address of Student : Nashik

Do You Want to Add More Records: y

Enter Roll No of Student : 28

Enter a Name of Student : Purva

Enter a Division of Student : B

Enter a Address of Student : Nashik

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
26	Samradni	B	Nashik
28	Purva	B	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: 4

Enter a Roll No: 26

Record Found...

Roll	Name	Div	Address
26	Samradni	B	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: 28

Record Found...

Roll	Name	Div	Address
28	Purva	B	Nashik

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
26	Samradni	B	Nashik

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