

Experiment F23

```
#include<iostream>
#include<fstream>
#include<cstdio>
using namespace std;

class employee
{
    int admno;
    char name[50];
    char addr[50];
public:
    void setData()
    {
        cout << "\nEnter Roll NO : . ";
        cin >> admno;
        cout << "Enter name ";
        cin>>name;
        cout<<"enter the address of the student";
        cin>>addr;

    }

    void showData()
    {
        cout << "\n*Student Roll No : " << admno;
        cout << "\n*Student Name : " << name;
        cout<<"\n*Address: " <<addr;
    }

    int retAdmno()
    {
        return admno;
    }
};

void write_record()
{
    ofstream outFile;
    outFile.open("employee.dat", ios::binary | ios::app);

    employee obj;
    obj.setData();
```

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        outFile.write((char*)&obj, sizeof(obj));

        outFile.close();
    }

void display()
{
    ifstream inFile;
    inFile.open("employee.dat", ios::binary);

    employee obj;

    while(inFile.read((char*)&obj, sizeof(obj)))
    {
        obj.showData();
    }

    inFile.close();
}

void search(int n)
{
    ifstream inFile;
    inFile.open("employee.dat", ios::binary);

    employee obj;

    while(inFile.read((char*)&obj, sizeof(obj)))
    {
        if(obj.retAdmno() == n)
        {
            obj.showData();
            break;
        }
    }

    inFile.close();
}

void delete_record(int n)
{
    employee obj;
    ifstream inFile;
    inFile.open("employee.dat", ios::binary);

    ofstream outFile;
    outFile.open("temp.dat", ios::out | ios::binary);

```

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while(inFile.read((char*)&obj, sizeof(obj)))
{
    if(obj.retAdmno() != n)
    {
        outFile.write((char*)&obj, sizeof(obj));
    }
}

inFile.close();
outFile.close();

remove("employee.dat");
rename("temp.dat", "employee.dat");
}

void modify_record(int n)
{
    fstream file;
    file.open("employee.dat", ios::in | ios::out);

    employee obj;

    while(file.read((char*)&obj, sizeof(obj)))
    {
        if(obj.retAdmno() == n)
        {
            cout << "\nEnter the new details of Student";
            obj.setData();

            int pos = -1 * sizeof(obj);
            file.seekp(pos, ios::cur);

            file.write((char*)&obj, sizeof(obj));
        }
    }

    file.close();
}

int main()
{
    int ch;
    do{
        cout<<"\n\n*****File operations*****\n\n1.write\n2.display\n3.search\n4.delete\n5.modify";
        cout<<"\nEnter your choice";
        cin>>ch;
        switch(ch){

```

```
case 1: cout<<"Enter number of records: ";
int n;
cin>>n;
for(int i = 0; i <n; i++)
    write_record();
break;
```

case 2:

```
    cout << "\nList of records";
    display();
    break;
```

case 3:

```
    cout<<"Enter Student Roll No : ";
    int s;
    cin>>s;
    search(s);
    break;
```

case 4:

```
    cout<<"enter no to be deleted";
    int d;
    cin>>d;
```

```
delete_record(d);
cout << "\nRecord Deleted";
break;
case 5:
```

```
cout<<"enter rno to be modified";
int m;
cin>>m;
```

```
modify_record(m);
break;
case 6:
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```
    return 0;
}

}while(ch!=6);
}
```