EXPERIMENT 12

INPUT:-

#include<iostream>

#include<fstream>

#include<cstdio>

using namespace std;

class student

{

    public:

    int rollno;

    char name[50];

    char add[50];

    char div[5];

    void setData()

    {

        cout<<"Enter Roll no: ";

        cin>>rollno;

        cout<<"Enter Name: ";

        cin>>name;

        cout<<"Address of student: ";

        cin>>add;

        cout<<"Division of student: ";

        cin>>div;

    }

    void showData()

    {

        cout<<"\n Roll no. of student: "<<rollno;

        cout<<"\n Name of the student: "<<name;

        cout<<"\n Address of student: "<<add;

        cout<<"\n Division of student: "<<div;

    }

    int retrollno()

    {

        return rollno;

    }

};

void write\_record()

{

    ofstream outfile;

    outfile.open("StudentData", ios::binary | ios::app);

    student obj;

    obj.setData();

    outfile.write((char\*)&obj, sizeof(obj));

    outfile.close();

}

void display\_record()

{

    ifstream infile;

    infile.open("StudentData", ios::binary);

    student obj;

    while(infile.read((char\*)&obj, sizeof(obj)))

        {

            obj.showData();

        }

    infile.close();

}

void search\_record(int n)

{

    bool flag=false;

    ifstream infile;

    infile.open("StudentData", ios::binary);

    student obj;

    while (infile.read((char\*)&obj, sizeof(obj)))

    {

        if(obj.rollno==n)

        {

            flag=true;

            obj.showData();

            break;

        }

        if(flag==false)

        {

            cout<<"Record for roll no. is not found in the file.";

        }

    }

}

void delete\_record(int n)

{

    student obj;

    ifstream infile;

    infile.open("StudentData", ios::binary);

    ofstream outfile;

    outfile.open("StudentNewData", ios::out | ios::binary);

    while(infile.read((char\*)&obj, sizeof(obj)))

    {

        if(obj.retrollno() != n)

        {

            outfile.write((char\*)&obj, sizeof(obj));

        }

    }

    infile.close();

    outfile.close();

    remove("StudentData");

    rename("StudentNewData","StudentData");

}

int main()

{

    int ch;

    do

    {

        cout<<"\n\*\*\*\*\*\*File Operations\*\*\*\*\*\*\n 1.Add Record. \n 2.Display Record. \n 3.Search a particular Record. \n 4.Delete particular Record.";

        cout<<"\n Enter your choice: ";

        cin>>ch;

        switch(ch)

        {

        case 1:

            cout<<"Enter total no. of records you want to store in a file: ";

            int n;

            cin>>n;

            for(int i=0; i<n; i++)

            {

                write\_record();

            }

            break;

        case 2:

            cout<<"\n List of records: ";

            display\_record();

            break;

        case 3:

            cout<<"Enter student roll no. whose record you want search: ";

            int s;

            cin>>s;

            search\_record(s);

            break;

        case 4:

            cout<<"Enter student roll no. whose record you want delete: ";

            int t;

            cin>>t;

            delete\_record(t);

            cout<<"Record Deleted Successfully!!";

            break;

        case 5:

            return 0;

        }

    }while(ch!=6);

}

OUTPUT:-

\*\*\*\*\*\*File Operations\*\*\*\*\*\*

1.Add Record.

2.Display Record.

3.Search a particular Record.

4.Delete particular Record.

Enter your choice: 1

Enter total no. of records you want to store in a

file: 3

Enter Roll no: 18

Enter Name: Virat

Address of student: Delhi

Division of student: A

Enter Roll no: 10

Enter Name: Akaay

Address of student: Bangalore

Division of student: B

Enter Roll no: 17

Enter Name: Anushka

Address of student: Mumbai

Division of student: C

\*\*\*\*\*\*File Operations\*\*\*\*\*\*

1.Add Record.

2.Display Record.

3.Search a particular Record.

4.Delete particular Record.

Enter your choice: 2

List of records:

Roll no. of student: 18

Name of the student: Virat

Address of student: Delhi

Division of student: A

Roll no. of student: 10

Name of the student: Akaay

Address of student: Bangalore

Division of student: B

Roll no. of student: 17

Name of the student: Anushka

Address of student: Mumbai

Division of student: C

\*\*\*\*\*\*File Operations\*\*\*\*\*\*

1.Add Record.

2.Display Record.

3.Search a particular Record.

4.Delete particular Record.

Enter your choice: 3

Enter student roll no. whose record you want search: 18

Roll no. of student: 18

Name of the student: Virat

Address of student: Delhi

Division of student: A

\*\*\*\*\*\*File Operations\*\*\*\*\*\*

1.Add Record.

2.Display Record.

3.Search a particular Record.

4.Delete particular Record.

Enter your choice: 4

Enter student roll no. whose record you want delete: 17

Record Deleted Successfully!!

\*\*\*\*\*\*File Operations\*\*\*\*\*\*

1.Add Record.

2.Display Record.

3.Search a particular Record.

4.Delete particular Record.

Enter your choice: 2

List of records:

Roll no. of student: 18

Name of the student: Virat

Address of student: Delhi

Division of student: A

Roll no. of student: 10

Name of the student: Akaay

Address of student: Bangalore

Division of student: B

\*\*\*\*\*\*File Operations\*\*\*\*\*\*

1.Add Record.

2.Display Record.

3.Search a particular Record.

4.Delete particular Record.

Enter your choice: 7