PRACTICAL NO 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 << "\nRoll no. of student: " << rollno;

cout << "\nName of the student: " << name;

cout << "\nAddress of student: " << add;

cout << "\nDivision 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;

bool flag = false;

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

obj.showdata();

cout << endl;

}

if (!flag) {

cout << "No records found.\n";

}

infile.close();

}

void search\_record(int n) {

ifstream infile;

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

student obj;

bool flag = false;

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

if (obj.retrollno() == n) {

obj.showdata();

flag = true;

break;

}

}

if (!flag) {

cout << "Record for roll no. " << n << " is not found.\n";

}

infile.close();

}

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");

cout << "Record deleted successfully.\n";

}

};

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. \n 5.Exit\n";

cout << "Enter your choice: ";

cin >> ch;

student obj;

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++) {

obj.write\_record();

}

break;

case 2:

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

obj.display\_record();

break;

case 3:

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

int s;

cin >> s;

obj.search\_record(s);

break;

case 4:

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

int t;

cin >> t;

obj.delete\_record(t);

break;

case 5:

return 0;

default:

cout << "Invalid choice.\n";

}

} while (ch != 5);

}

OUTPUT :

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

1.Add Record.

2.Display Record.

3.Search a particular Record.

4.Delete particular Record.

5.Exit

Enter your choice: 1

Enter total no. of records you want to store in a file: 3

Enter Roll No: 12268

Enter Name: vedant bagul

Address of student: Division of student: B

Enter Roll No: 12261

Enter Name: laxman shelke

Address of student: Division of student: B

Enter Roll No: 12255

Enter Name: harshraj patil

Address of student: Division of student: B

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

1.Add Record.

2.Display Record.

3.Search a particular Record.

4.Delete particular Record.

5.Exit

Enter your choice: 2

List of records:

Roll no. of student: 12268

Name of the student: vedant

Address of student: bagul

Division of student: B

Roll no. of student: 12261

Name of the student: laxman

Address of student: shelke

Division of student: B

Roll no. of student: 12255

Name of the student: harshraj

Address of student: patil

Division of student: B

No records found.

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

1.Add Record.

2.Display Record.

3.Search a particular Record.

4.Delete particular Record.

5.Exit

Enter your choice: 3

Enter student roll no. whose record you want to search: 12255

Roll no. of student: 12255

Name of the student: harshraj

Address of student: patil

Division of student: B

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

1.Add Record.

2.Display Record.

3.Search a particular Record.

4.Delete particular Record.

5.Exit

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

1.Add Record.

2.Display Record.

3.Search a particular Record.

4.Delete particular Record.

5.Exit

Enter your choice: 4

Enter student roll no. whose record you want to delete: 12261

Record deleted successfully.

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

1.Add Record.

2.Display Record.

3.Search a particular Record.

4.Delete particular Record.

5.Exit

Enter your choice: 5

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Process exited after 112.9 seconds with return value 0

Press any key to continue . . .