Name : Mahesh Gaikwad

Roll No : SA21

```
/*

Name : Mahesh Gaikwad

Roll No : SA21

ASSIGNMENT 11 - sequential file organization

Department maintains student information. The file contains roll number,

name, division and address. Allow users to add, delete information about

students. Display information of a particular employee. If the record of

the student does not exist an appropriate message is displayed. If it is,

then the system displays the student details. Use a sequential file to

maintain the data.

*/

#include <iostream>

#include <fstream> using

namespace std; class

student

{

public: int

rollno;

char div;

bool flag;

char name[20];

char addr[20]; void

getdata(); void

display_data(); int

return_rno();

};

void student::getdata()

{

cout << "Enter roll number: ";

cin >> rollno; cout << "Enter

name: ";
```

```cpp
cin >> name; cout <<
"Enter division: "; cin >>
div; cout << "Enter
address: "; cin >> addr;
}
void student::display_data()
{
cout << "\nRoll Number: " << rollno << endl;
cout << "Name: " << name << endl; cout <<
"Division: " << div << endl; cout <<
"Address: " << addr << endl;
}

int student::return_rno()
{
return rollno;
}
void write_rec()
{
ofstream fobj; fobj.open("Info.txt", ios::app);
student s1; s1.getdata(); fobj.write((char
*)&s1, sizeof(s1)); fobj.close(); cout << "Record
written successfully." << endl;
}
void display_rec()
{
ifstream f1;
f1.open("Info.txt"); student s1; while
(f1.read((char *)&s1, sizeof(s1)))
s1.display_data(); f1.close();
}
```

```cpp
void search_rec()
{
int rno; cout << "\nEnter rollno to be
searched: "; cin >> rno; ifstream f1;
f1.open("Info.txt", ios::in); student s1;
while (f1.read((char *)&s1, sizeof(s1)))
{
if (s1.return_rno() == rno)
{
s1.flag = true;
s1.display_data();
f1.close(); return;
}
}
f1.close(); if
(s1.flag == false)
cout << "Data not found" << endl;


}


void delete_rec()
{
student s1; int r1no; cout << "\nEnter
rollno to be deleted: "; cin >> r1no;
ifstream f1; ofstream f2;
f1.open("Info.txt", ios::in);
f2.open("temp.txt", ios::out);
f1.read((char *)&s1, sizeof(s1)); while
(!f1.eof())
{
```

```cpp
if (s1.return_rno() != r1no) f2.write((char
*)&s1, sizeof(s1)); f1.read((char *)&s1,
sizeof(s1));
}
cout << "Record with rollno " << r1no << " has been deleted" <<
endl; f1.close(); f2.close(); remove("Info.txt");
rename("temp.txt", "Info.txt");
}
int main()
{
int choice = 0; while
(choice != 5)
{ cout << "-----------------------------------" <<
endl;
cout << "Direct Access File Menu:" << endl;
cout << "1. Write Record" << endl;

cout << "2. Display Records" << endl;
cout << "3. Search Record" << endl;
cout << "4. Delete Record" << endl;
cout << "5. Quit" << endl; cout <<
"Enter your choice: "; cin >> choice;
switch (choice)
{
case 1:
write_rec();
break; case
2:
display_rec();
```

break; case 3: search_rec(); break; case 4:

delete_rec(); break; case 5: cout << "Quitting..."

<< endl; break; default: cout << "Invalid choice.

Please try again." << endl; break;

}

}

return 0;

}

OUTPUT

Direct Access File Menu:

1. Write Record

2. Display Records

3. Search Record

4. Delete Record

5. Quit

Enter your choice: 1

Enter roll number: 19

Enter name: Isha

Enter division: A Enter

address: Dhayari

Record written successfully.

Direct Access File Menu:

1. Write Record

2. Display Records

3. Search Record

4. Delete Record 5. Quit

Enter your choice: 1

Enter roll number: 6

Enter name: Harshita

Enter division: A

Enter address: camp

Record written successfully.

Direct Access File Menu:

1. Write Record

2. Display Records

3. Search Record

4. Delete Record

5. Quit

Enter your choice: 1

Enter roll number: 35

Enter name: Max

Enter division: A Enter

address: Hostel

Record written successfully.

Direct Access File Menu:

1. Write Record

2. Display Records

3. Search Record

4. Delete Record 5. Quit

Enter your choice: 1

Enter roll number: 23

Enter name: Raj

Enter division: A

Enter address: Pune

Record written successfully.

Direct Access File Menu:

1. Write Record

2. Display Records

3. Search Record

4. Delete Record 5. Quit

Enter your choice: 2

Roll Number: 19

Name: Isha

Division: A

Address: Dhayari

Roll Number: 6

Name: Harshita

Division: A

Address: Camp

Roll Number: 19

Name: Isha

Division: A

Address: Dhayari

Roll Number: 6

Name: Harshita

Division: A

Address: camp

Roll Number: 35

Name: Max

Division: A

Address: Hostel

Roll Number: 23

Name: Raj

Division: A

Address: Pune

Direct Access File Menu:

1. Write Record

2. Display Records

3. Search Record

4. Delete Record

5. Quit

Enter your choice: 3

Enter rollno to be searched: 19

Roll Number: 19

Name: Isha

Division: A

Address: Dhayari

Direct Access File Menu:

1. Write Record

2. Display Records

3. Search Record

4. Delete Record 5. Quit

Enter your choice: 3

Enter rollno to be searched: 6

Roll Number: 6

Name: Harshita

Division: A

Address: Camp

Direct Access File Menu:

1. Write Record

2. Display Records

3. Search Record

4. Delete Record 5. Quit

Enter your choice: 3

Enter rollno to be searched: 1

Data not found ----------------------------------

Direct Access File Menu:

1. Write Record

2. Display Records

3. Search Record

4. Delete Record 5. Quit

Enter your choice: 4

Enter rollno to be deleted: 23

Record with rollno 23 has been deleted

Direct Access File Menu:

1. Write Record

2. Display Records

3. Search Record

4. Delete Record 5. Quit

Enter your choice: 2

Roll Number: 19

Name: Isha

Division: A

Address: Dhayari

Roll Number: 6

Name: Harshita

Division: A

Address: Camp

Roll Number: 19

Name: Isha

Division: A

Address: Dhayari

Roll Number: 6

Name: Harshita

Division: A

Address: camp

Roll Number: 35

Name: Max

Division: A

Address: Hostel

Direct Access File Menu:

1. Write Record

2. Display Records

3. Search Record

4. Delete Record 5. Quit

Enter your choice: 5 Quitting...