

NAME : TANISHQ GUPTA

CLASS : SE

BATCH : A4

ROLL NO.: SEAD21168

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>
using namespace std;

class student
{
    int roll_no;
    char Name[30];
    char Division[5];
    char Address[50];
public:
    void accept();
    void display();
    int rollno()
    {
        return roll_no;
    }
};

void student::accept()
{
    cout<<"\nEnter Roll Number: ";
    cin>>roll_no;
    cout<<"\nEnter Name: ";
    cin.ignore();
    cin.getline(Name,30);
    cout<<"\nEnter Division: ";
    cin>>Division;
    cout<<"\nEnter Address: ";
    cin>>Address;
    cout<<"\n";
}
```

```

void student::display()
{
    cout<<"\n  "<<roll_no<<"\t "<<Name<<" \t\t "<<Division<<"\t  "<<Address;
}
void create()
{
    student s;
    int n, i;

    ofstream out("Student.txt");
    cout<<"\nHow many records do you want to enter?: ";
    cin>>n;

    for(i=0;i<n;i++)
    {
        s.accept();
        out.write((char *)&s,sizeof(s));
    }

    out.close();
}
void search()
{
    int n, flag=0;

    cout<<"\nEnter Roll Number To Be Searched: ";
    cin>>n;
    ifstream infile("Student.txt");

    student s;
    while(infile.read((char *)&s,sizeof(s)))
    {
        if(s.rollno()==n)
        {
            cout<<"\nRecord Found\n";
            cout<<"\nRoll      Number      Name      Division      Address";
            s.display();
            flag=1;
            break;
        }
    }

    if(flag==0)
    {
        cout<<"\nRecord Not Found.";
    }

    infile.close();
}
void display()
{
    student s;
    ifstream infile("Student.txt");
    while(infile.read((char *)&s, sizeof(s)))

```

```

        {
            s.display();
        }

        infile.close();
    }
void add_record()
{
    student s;
    ofstream outfile("Student.txt",ios::app);
    s.accept();
    outfile.write((char *)&s,sizeof(s));
    outfile.close();
    cout<<"Record Successfully Added.";
}
void delete_record()
{
    int n, flag=0;
    cout<<"\nEnter Roll Number Whose Record To Be Deleted:";
    cin>>n;
    ifstream infile("student.txt"); // to read from source file
    ofstream temp("temp.txt"); // to write in destination file(temporary file)
    student s;
    while(infile.read((char *)&s, sizeof(s)))
    {
        if(s.rollno()!=n)
        {
            temp.write((char *)&s, sizeof(s));
        }

        else
        {
            flag=1;
            cout<<"\nRecord Successfully Deleted.";
        }
    }

    if(flag==0)
    {
        cout<<"\nRecord Not Found.";
    }

    infile.close();
    temp.close();
    remove("Student.txt");
    rename("temp.txt","Student.txt");
}
int main()
{
    int choice;
    ofstream out("Student.txt");
    out.close();
    do
    {   cout<<"\n";

```

```

cout<<"\nMenu:\n1) Create Database.\n2) Display.\n3) Add record.\n4) Search
Record.\n5)Delete Record.\n6) Exit.";
    cout<<"\n\nEnter Your Choice: ";
    cin>>choice;

    switch(choice)
    {
        case 1:
            cout<<"\n";
            create();
            break;

        case 2:
            cout<<"\n";
            cout<<"\nRoll    Number    Name                Division    Address";
            display();
            break;

        case 3:
            cout<<"\n";
            add_record();
            break;

        case 4:
            cout<<"\n";
            search();
            break;

        case 5:
            cout<<"\n";
            delete_record();
            break;

        case 6:
            cout<<"\n";
            cout<<"You Have Successfully Exitted...";
            break;
    }
    while(choice!=6);

    return 0;
}

```

OUTPUT:

```
PS C:\Users\tanis\OneDrive\Desktop\tanishq_gupta_21168> g++ .\f23_file.cpp
PS C:\Users\tanis\OneDrive\Desktop\tanishq_gupta_21168> .\a.exe

Menu:
1) Create Database.
2) Display.
3) Add record.
4) Search Record.
5) Delete Record.
6) Exit.

Enter Your Choice: 1

How many records do you want to enter?: 3

Enter Roll Number: 1
Enter Name: sans
Enter Division: A
Enter Address: pune

Enter Roll Number: 2
Enter Name: rug
Enter Division: A
Enter Address: pune

Enter Roll Number: 3
Enter Name: krun
Enter Division: A
Enter Address: ravet

Menu:
1) Create Database.
2) Display.
3) Add record.
4) Search Record.
5) Delete Record.
6) Exit.

Enter Your Choice: 2

Roll          Number          Name          Division          Address

Menu:
1) Create Database.
2) Display.
3) Add record.
4) Search Record.
5) Delete Record.
6) Exit.

Enter Your Choice: 4

Enter Roll Number To Be Searched: 2
Record Not Found.

Menu:
1) Create Database.
2) Display.
3) Add record.
4) Search Record.
5) Delete Record.
6) Exit.

Enter Your Choice: 6

You Have Successfully Exitted...
PS C:\Users\tanis\OneDrive\Desktop\tanishq_gupta_21168> |
```