PROGRAM- WRITE A MENU DRIVEN PROGRAM THAT READS DETAILS OF FACULTY. THE FUNCTIONS IN MENU – 1) ADD RECORD, 2) DELETE EXISTING RECORD, 3) UPDATE RECORD, 4) DISPLAY EXISTING RECORD, 5) TO COUNT THE NUMBER OF RECORDS, 6) TO RANDOMLY READ RECORD, 7) TO PRINT RECORDS IN REVERSE ORDER.

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//MENU DRIVEN PROGRAM TO HANDLE RECORD OF FACULTY IN A BINARY FILE

```
#include<iostream>
#include<fstream>
#include<stdio.h>
#include<string.h>
#include<conio.h>
#include<process.h>
using namespace std;
class faculty
{
private:
        int Record_no;
        char name[100];
        char department[100];
public:
        void getdata();
        void display();
        char *getname()
        {
                return name;
        }
        int getr()
        {
                return Record_no;
        }
};faculty f1;


void faculty ::getdata()
{
```

```
	cout<<"Enter the Record_no, name and department :";
	cin>>Record_no;
	cin>>name;
	cin>>department;
}
void faculty::display()
{
	cout<<"Record no - "<<Record_no<<endl;
	cout<<"Name - "<<name<<endl;
	cout<<"Department - "<<department<<endl;
}
void Create();
void Add();
void Display();
void RevDisplay();
void search();
void update();
void CountRecord();
void Delete();

fstream myfile;
int main()
{
	int opt;
	while(1)
	{
		system("cls");
		cout<<"1.Create a File"<<endl;
		cout<<"2.Add New Record"<<endl;
		cout<<"3.Display Record"<<endl;
		cout<<"4.Randomly search a record"<<endl;
		cout<<"5.Update record"<<endl;
		cout<<"6.Delete Particular Record"<<endl;
		cout<<"7.Total number of records"<<endl;
```

```
cout<<"8.Display records in reverse order"<<endl;
cout<<"9.Exit"<<endl;
cout<<"Enter your Option : "<<endl;
cin>>opt;
switch(opt)
{
        case 1:
        {
                Create();
                break;
        }
        case 2:
        {
                Add();
                break;
        }
        case 3:
        {
                Display();
                getch();
                break;
        }
        case 4:
        {
                search();
                break;
        }
        case 5:
        {
                update();
                break;
        }
        case 6:
        {
```

```
                    Delete();
                    break;
                }
                case 7:
                {
                    CountRecord();
                    break;
                }
                case 8:
                {
                    RevDisplay();
                    break;
                }
                case 9:
                {
                    exit(0);
                }
                default:
                {
                    cout<<"Wrong Choice!!! Press any Key to go back to menu";
                    system("cls");
                }
            }
        }
}

void Create()
{
        char ch='y';
        myfile.open("facultydata.dat",ios::out| ios::binary);
        while(ch=='y' || ch =='Y')
        {
            f1.getdata();
            myfile.write((char*)&f1, sizeof(f1));
```

```
		cout<<"Press y/Y to continue = ";
		cin>>ch;
	}
	myfile.close();
}

void Add()
{
	char ch='y';
	myfile.open("facultydata.dat",ios::app| ios::binary);
	while(ch=='y' || ch =='Y')
	{
		f1.getdata();
		myfile.write((char*)&f1, sizeof(f1));
		cout<<"Press y/Y to continue = ";
		cin>>ch;
	}
	myfile.close();
}

void Display()
{
	myfile.open("facultydata.dat",ios::in| ios::binary);
	if(!myfile)
	{
		cout<<"File not Found";
		exit(0);
	}
	else
	{
		myfile.read((char*)&f1, sizeof(f1));
		while(!myfile.eof())
		{
			f1.display();
```

```
                myfile.read((char*)&f1, sizeof(f1));
            }
        }
        myfile.close();
}

void RevDisplay()
{
        int n;
        cout<<"Enter last Record no. :";
        cin>>n;
        while(n>0)
        {
            myfile.open("facultydata.dat",ios::in| ios::binary);
            if(!myfile)
            {
                cout<<"File not Found";
                exit(0);
            }
            else
            {
                myfile.read((char*)&f1, sizeof(f1));
                while(!myfile.eof())
                {
                    if(n==f1.getr())
                    {
                        f1.display();
                    }
                myfile.read((char*)&f1, sizeof(f1));
                }
                getch();
            }
            myfile.close();
            n--;
```

```
	}
}

void search()
{
	int ctr=0;
	char n[100];
	cout<<"Enter Name of the faculty to search record :";
	cin>>n;
	myfile.open("facultydata.dat",ios::in| ios::binary);
	if(!myfile)
	{
		cout<<"File not Found";
		exit(0);
	}
	else
	{
		myfile.read((char*)&f1, sizeof(f1));
		while(!myfile.eof())
		{
			if(strcmp(n,f1.getname())==0)
			{
				f1.display();
				cout<<"Press Any Key."<<endl;
				getch();
				ctr++;
			}
			myfile.read((char*)&f1, sizeof(f1));
		}
	}
	if(ctr==0)
	{
		cout<<"RECORD NOT FOUND !!! ";
		getch();
```

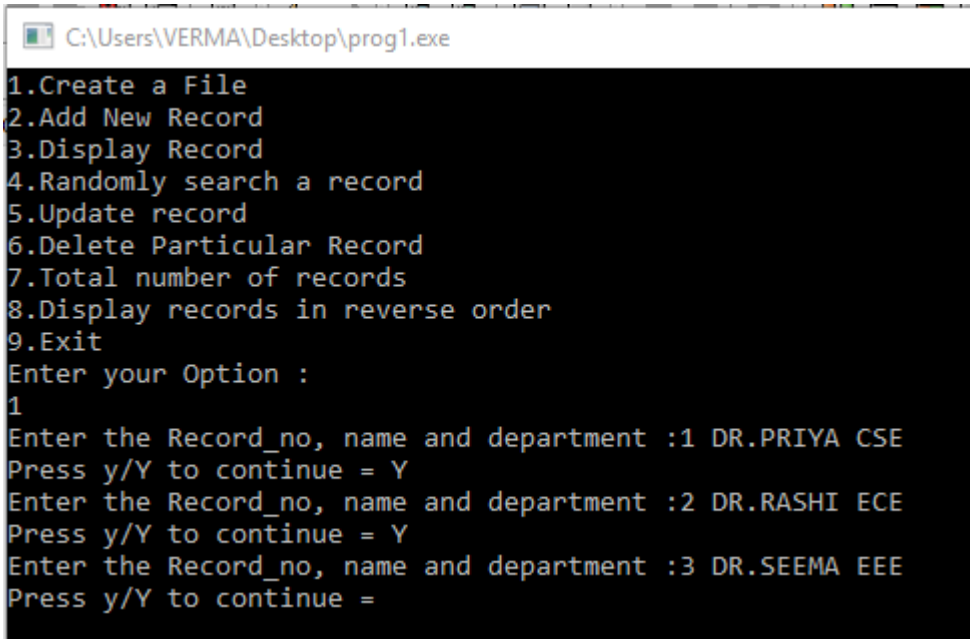
```
        }
        myfile.close();
}
void update()
{
        int ctr=0;
        char n[100];
        cout<<"Enter Name of the faculty whose data has to be updated :";
        cin>>n;
        myfile.open("facultydata.dat",ios::in| ios::out|ios::binary);
        if(!myfile)
        {
                cout<<"File not Found";
                exit(0);
        }
        else
        {
                myfile.read((char*)&f1, sizeof(f1));
                while(!myfile.eof())
                {
                        if(strcmp(n,f1.getname())==0)
                        {
                                myfile.seekg(0,ios::cur);
                                cout<<"Enter New Record.."<<endl;
                                f1.getdata();
                                int n1, n2, n3;
                                n1=myfile.tellg();
                                n2=sizeof(f1);
                                n3=n1-n2;
                                myfile.seekp(n3);
                                myfile.write((char*)&f1, sizeof(f1));
                                ctr++;
                        }
                        myfile.read((char*)&f1, sizeof(f1));
```

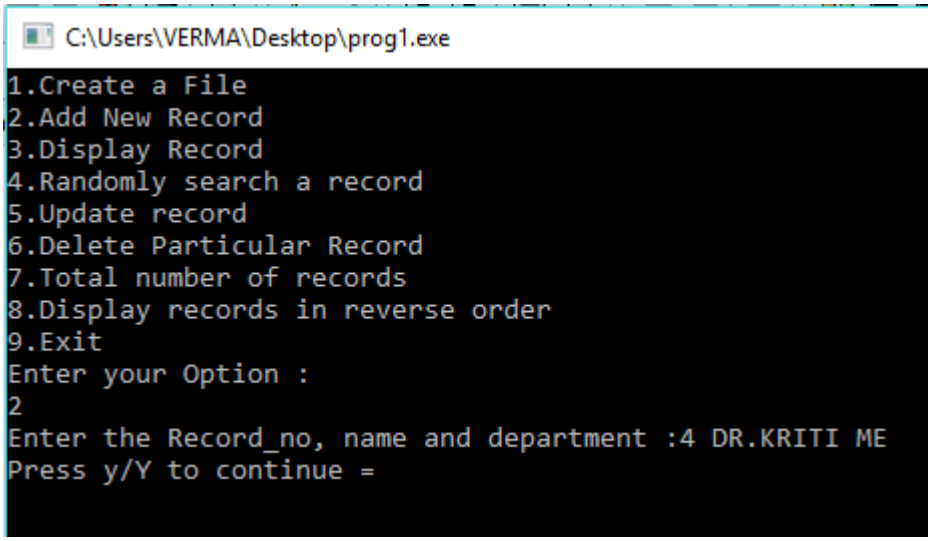
```
            }
        }
        if(ctr==0)
        {
            cout<<"RECORD NOT FOUND !!! ";
            getch();
        }
        myfile.close();
}

void CountRecord()
{
        int ctr=0;
        myfile.open("facultydata.dat",ios::in| ios::binary);
        if(!myfile)
        {
            cout<<"File not Found";
            exit(0);
        }
        else
        {
            myfile.read((char*)&f1, sizeof(f1));
            while(!myfile.eof())
            {
                myfile.read((char*)&f1, sizeof(f1));
                ctr++;
            }
            cout<<"\nTotal number of records found = "<<ctr;
            getch();
        }
        myfile.close();
}

void Delete()
```

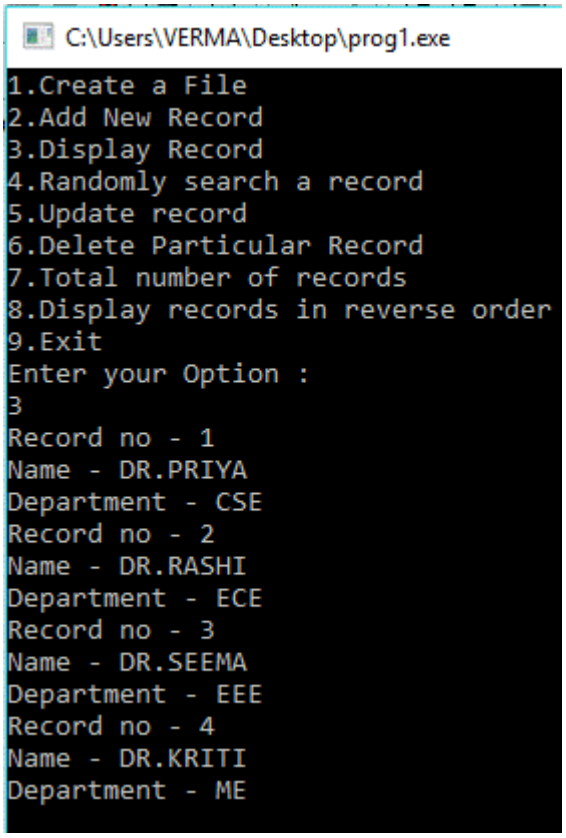
```
{
        char n[100];
        int ctr=0;
        cout<<"Enter Name of the faculty whose data to be Deleted :";
        cin>>n;
        ofstream ofile;
        ofile.open("temp.dat",ios::out|ios::binary);
        myfile.open("facultydata.dat",ios::in| ios::binary);
        if(!myfile)
        {
                cout<<"File not Found";
                exit(0);
        }
        else
        {
                myfile.read((char*)&f1, sizeof(f1));
                while(!myfile.eof())
                {
                        if(strcmp(n,f1.getname())!=0)
                        {
                                ofile.write((char*)&f1, sizeof(f1));
                                ctr++;
                        }
                        myfile.read((char*)&f1, sizeof(f1));
                }
        }
        if(ctr==0)
        {
                cout<<"RECORD NOT FOUND !!! ";
                getch();
        }
        ofile.close();
        myfile.close();
        remove("facultydata.dat");
```

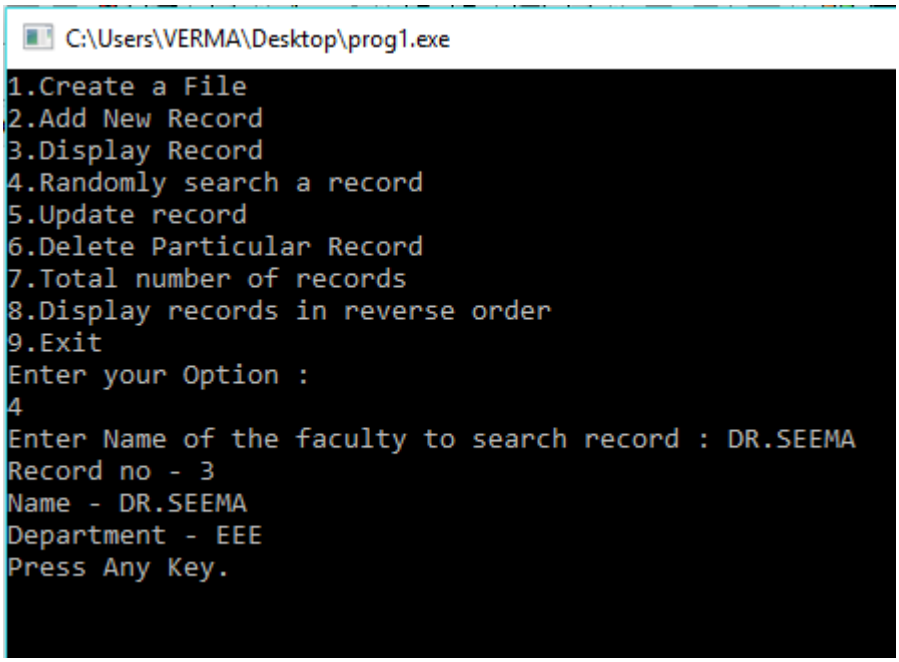
```
    rename("temp.dat", "facultydata.dat");
}
```

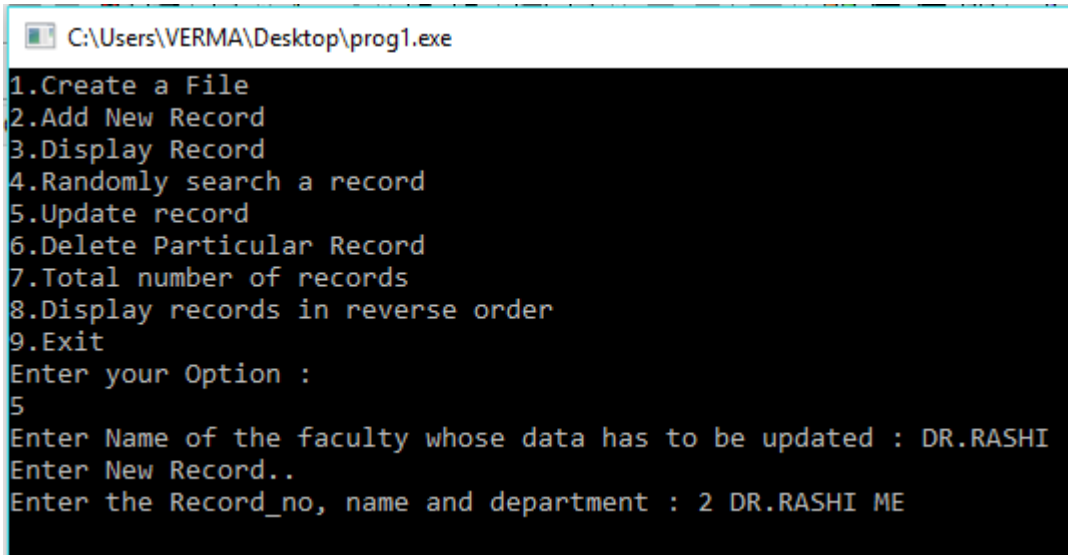
OUTPUT -

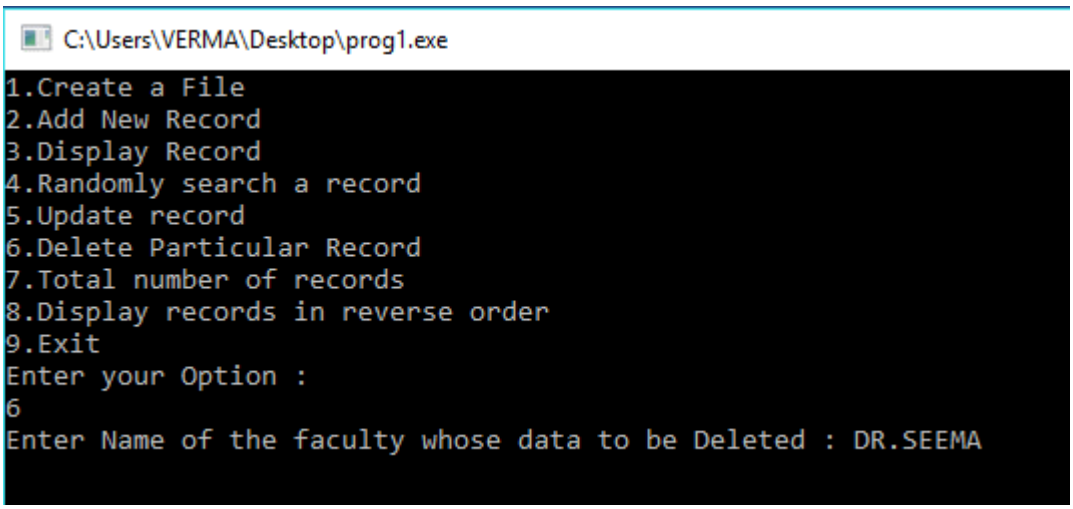


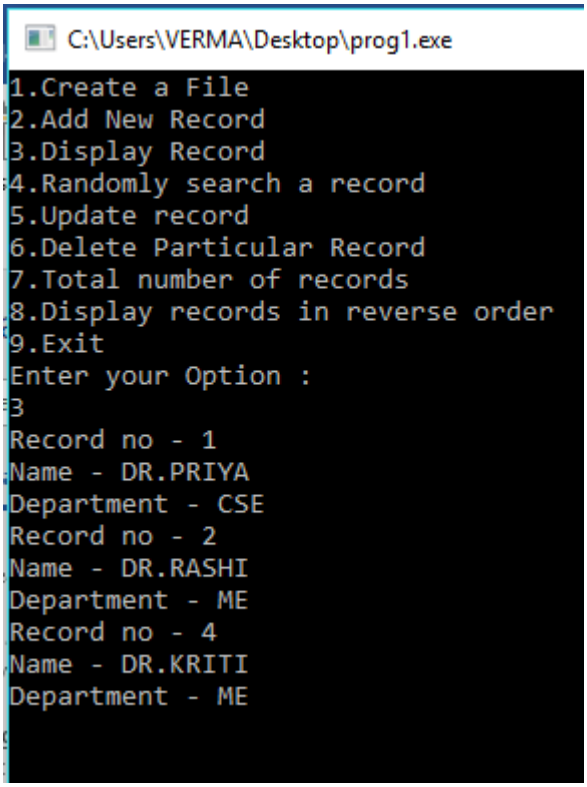


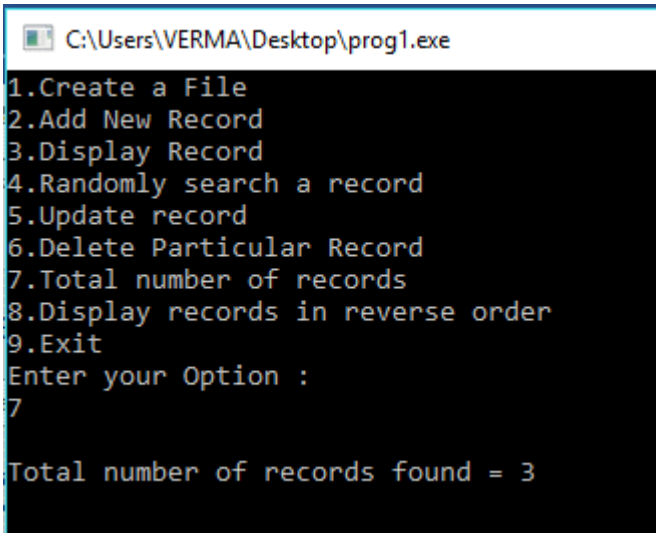

C:\Users\VERMA\Desktop\prog1.exe
1.Create a File
2.Add New Record
3.Display Record
4.Randomly search a record
5.Update record
6.Delete Particular Record
7.Total number of records
8.Display records in reverse order
9.Exit
Enter your Option :
3
Record no - 1
Name - DR.PRIYA
Department - CSE
Record no - 2
Name - DR.RASHI
Department - ECE
Record no - 3
Name - DR.SEEMA
Department - EEE
Record no - 4
Name - DR.KRITI
Department - ME

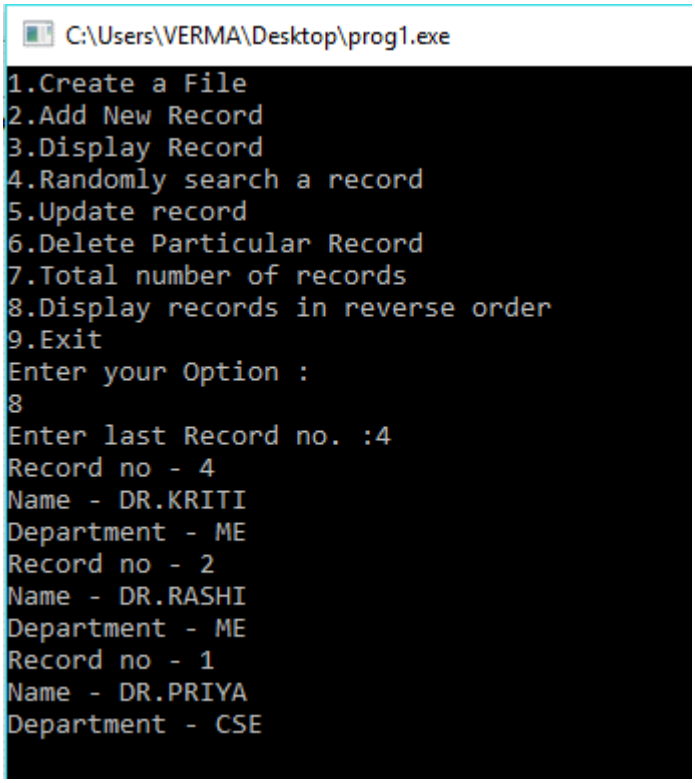

C:\Users\VERMA\Desktop\prog1.exe
1.Create a File
2.Add New Record
3.Display Record
4.Randomly search a record
5.Update record
6.Delete Particular Record
7.Total number of records
8.Display records in reverse order
9.Exit
Enter your Option :
4
Enter Name of the faculty to search record : DR.SEEMA
Record no - 3
Name - DR.SEEMA
Department - EEE
Press Any Key.


C:\Users\VERMA\Desktop\prog1.exe
1.Create a File
2.Add New Record
3.Display Record
4.Randomly search a record
5.Update record
6.Delete Particular Record
7.Total number of records
8.Display records in reverse order
9.Exit
Enter your Option :
5
Enter Name of the faculty whose data has to be updated : DR.RASHI
Enter New Record..
Enter the Record_no, name and department : 2 DR.RASHI ME


C:\Users\VERMA\Desktop\prog1.exe
1.Create a File
2.Add New Record
3.Display Record
4.Randomly search a record
5.Update record
6.Delete Particular Record
7.Total number of records
8.Display records in reverse order
9.Exit
Enter your Option :
6
Enter Name of the faculty whose data to be Deleted : DR.SEEMA


C:\Users\VERMA\Desktop\prog1.exe
1.Create a File
2.Add New Record
3.Display Record
4.Randomly search a record
5.Update record
6.Delete Particular Record
7.Total number of records
8.Display records in reverse order
9.Exit
Enter your Option :
3
Record no - 1
Name - DR.PRIYA
Department - CSE
Record no - 2
Name - DR.RASHI
Department - ME
Record no - 4
Name - DR.KRITI
Department - ME


C:\Users\VERMA\Desktop\prog1.exe
1.Create a File
2.Add New Record
3.Display Record
4.Randomly search a record
5.Update record
6.Delete Particular Record
7.Total number of records
8.Display records in reverse order
9.Exit
Enter your Option :
7
Total number of records found = 3


C:\Users\VERMA\Desktop\prog1.exe
1.Create a File
2.Add New Record
3.Display Record
4.Randomly search a record
5.Update record
6.Delete Particular Record
7.Total number of records
8.Display records in reverse order
9.Exit
Enter your Option :
8
Enter last Record no. :4
Record no - 4
Name - DR.KRITI
Department - ME
Record no - 2
Name - DR.RASHI
Department - ME
Record no - 1
Name - DR.PRIYA
Department - CSE