

Name : Resham Landge
Roll No : 2339

*******Assignment No : 11*******

Title : Department maintains a student information. The file contains roll number, name, division and address. Write a program to create a sequential file to store and maintain student data. It should allow the 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 student record is found it should display the student details.

```
#include<iostream>
#include<fstream>
#include<stdlib.h>
#include<string.h>
using namespace std;

class file                                //class for file
{
    public:
        int roll;
        float age;
        char name[100];

        void input();
        void show();
        char *getn()
        {
            return name;
        }
};

file fileobj;
fstream fil;

void file::input()                        //function to take input
{
    cout<<"\n\tEnter the Roll, Age and Name : ";
    cin>>roll>>age>>name;
}

void file::show()                        //function to show records in the file
{
```

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        cout<<"\n\tRoll==> "<<roll;
        cout<<"\tAge ==> "<<age;
        cout<<"\tName==> "<<name;
    }

void Create()                                //Function to Create Data File
{
    char ch='y';

    fil.open("binary.dat",ios::out| ios::binary);    //to open the file in write mode to file

    while(ch=='y' || ch=='Y')
    {
        fileobj.input();        //insert the records in the file
        fil.write((char*)&fileobj, sizeof(fileobj));
        cout<<"\n\tDo U Want to Continue(y/n) : ";
        cin>>ch;
    }
    fil.close();                //to close existing file
}

void Add()                                //Function to Add New Record in Data File
{
    char ch='y';

    fil.open("binary.dat",ios::out|ios::app| ios::binary);//open file in  append or write mode

    while(ch=='y' || ch=='Y')
    {
        fileobj.input();        //insert the records need to add
        fil.write((char*)&fileobj, sizeof(fileobj));
        cout<<"\n\tDo U Want to Continue(y/n) : ";
        cin>>ch;
    }
    fil.close();                //close the exsisting file
}

void Display()                            //Function to Display All Record from Data File
{
    fil.open("binary.dat",ios::in| ios::binary);    //open the file in reading mode
    if(!fil)                //file not found
    {
        cout<<"\n\tFile not Found "; // no file exsit
        exit(0);
    }
}

```

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    }
    else
    {
        fil.read((char*)&fileobj, sizeof(fileobj));
        while(!fil.eof())          // continue until END OF FILE pointer
        {
            fileobj.show();        //display the records until the END OF FILE
            fil.read((char*)&fileobj, sizeof(fileobj));
        }
    }
    fil.close();                  //close the file
}

void DisplayP()                  //Function to Display particular Record from Data File
{
    char n[100];

    cout<<"\n\tEnter Name that should be searched:";
    cin>>n;

    fil.open("binary.dat",ios::in| ios::binary);//open the file in reading mode
    if(!fil)
    {
        cout<<"\n\tFile not Found ";
        exit(0);
    }
    else
    {
        fil.read((char*)&fileobj, sizeof(fileobj));//read thhe data from file

        while(!fil.eof())        //continue the file until the END OF FILE
        {
            if(strcmp(n,fileobj.getn())==0)//search for the records in the file
            {
                fileobj.show(); //if the name enterd and searched
                                record name is same display
                fil.close();    // close the file
                return;
            }
            fil.read((char*)&fileobj, sizeof(fileobj));
        }
        cout<<"\n\tRecord not found\n";
    }
    fil.close();                  //close the file
}

```

```

}

void Modify()                                //Function to Modify Particular Record from Data File
{
    char n[100];

    cout<<"\n\tEnter Name that should be searched:";
    cin>>n;
    fil.open("binary.dat",ios::in| ios::out|ios::binary);//open the file in
                                                //reading and writing mode
    if(!fil)                                //if file is not found then no file exist
    {
        cout<<"\n\tFile not Found";
        exit(0);
    }
    else
    {
        fil.read((char*)&fileobj, sizeof(fileobj));//read records form file

        while(!fil.eof())                    //continue until END OF FILE
        {
            if(strcmp(n,fileobj.getn())==0)//search the records by name
            {
                fil.seekg(0,ios::cur);//jump the file pointer to record
                cout<<"\n\tEnter New Record..";
                fileobj.input();//insert the new records

                int p=fil.tellg();
                int q=sizeof(fileobj);
                fil.seekp(p-q);

                fil.write((char*)&fileobj, sizeof(fileobj));
                fil.close();    // close the file
                return;
            }
            fil.read((char*)&fileobj, sizeof(fileobj));//read records from file
        }
        cout<<"\n\tRecord not found\n";
    }
    fil.close();
}

void Delete()                                //Function to Delete Particular Record from Data File
{

```

```

int flag=0;
char n[100];

cout<<"\n\tEnter Name that should be Deleted :";
cin>>n;

ofstream o;
o.open("new.dat",ios::out|ios::binary);//open file in write mode
fil.open("binary.dat",ios::in|ios::binary);//open file reading mode

if(!fil)                                //find the file
{
    cout<<"\n\tFile not Found";
    exit(0);
}
else
{
    fil.read((char*)&fileobj, sizeof(fileobj));//read the records from the file
    while(!fil.eof())                        // continue until END OF FILE
    {
        if(strcmp(n,fileobj.getn())!=0) //search the records by using name
            o.write((char*)&fileobj, sizeof(fileobj));//open write mode
        else
            flag=1;
        fil.read((char*)&fileobj, sizeof(fileobj));//read the records
    }
    if(flag==0)                            // if flag=0 then no records exist
        cout<<"Record not found\n";
    }
    o.close();                            //close the file object
    fil.close();                          //close the file
    remove("binary.dat");
    rename("new.dat", "binary.dat");
}

main()
{
    int opt;

    while(1)
    {
        cout<<"\n\t1.Create Data File";
        cout<<"\n\t2.Add New Record in Data File";
        cout<<"\n\t3.Display Record From Data File";
    }
}

```

```

cout<<"\n\t4.Display Particular Record From Data File";
cout<<"\n\t5.Modify Particular Record From Data File";
cout<<"\n\t6.Delete Particular Record From Data File";
cout<<"\n\t7.Exit From the Program";
cout<<"\n\n\tEnter your choice : ";
cin>>opt;

switch(opt)
{
    case 1:
        Create();
        cout<<"\n\tDisplay Main Menu\n";
        break;
    case 2:
        Add();
        cout<<"\n\tDisplay Main Menu\n";
        break;
    case 3:
        Display();
        cout<<"\n\tDisplay Main Menu\n";
        break;
    case 4:
        DisplayP();
        cout<<"\n\tDisplay Main Menu\n";
        break;
    case 5:
        Modify();
        cout<<"\n\tDisplay Main Menu\n";
        break;
    case 6:
        Delete();
        cout<<"\n\tDisplay Main Menu\n";
        break;
    case 7:
        exit(0);
    default:
        cout<<"\n\tWrong Choice....Press Key For View the Main
        Menu";
    }
}
}

```

Output :

```
ubuntu@ubuntu: ~/resham/dsf
ubuntu@ubuntu:~/resham/dsf$ g++ ass11.cpp
ubuntu@ubuntu:~/resham/dsf$ ./a.out

1.Create Data File
2.Add New Record in Data File
3.Display Record From Data File
4.Display Particular Record From Data File
5.Modify Particular Record From Data File
6.Delete Particular Record From Data File
7.Exit From the Program

Enter your choice : 1

Enter the Roll, Age and Name : 2339 21 reshama

Do U Want to Continue(y/n) : y

Enter the Roll, Age and Name : 2344 20 kalpesh
```

```
ubuntu@ubuntu: ~/resham/dsf

Do U Want to Continue(y/n) : n

Display Main Menu

1.Create Data File
2.Add New Record in Data File
3.Display Record From Data File
4.Display Particular Record From Data File
5.Modify Particular Record From Data File
6.Delete Particular Record From Data File
7.Exit From the Program

Enter your choice : 2

Enter the Roll, Age and Name : 2343 20 shrikrushna

Do U Want to Continue(y/n) : n

Display Main Menu
```

```
ubuntu@ubuntu: ~/resham/dsf
1.Create Data File
2.Add New Record in Data File
3.Display Record From Data File
4.Display Particular Record From Data File
5.Modify Particular Record From Data File
6.Delete Particular Record From Data File
7.Exit From the Program

Enter your choice : 3

Roll==> 2339      Age ==> 21      Name==> reshama
Roll==> 2344      Age ==> 20      Name==> kalpesh
Roll==> 2343      Age ==> 20      Name==> shrikrushna
Display Main Menu

1.Create Data File
2.Add New Record in Data File
3.Display Record From Data File
4.Display Particular Record From Data File
5.Modify Particular Record From Data File
6.Delete Particular Record From Data File
7.Exit From the Program

Enter your choice : 4
```

```
ubuntu@ubuntu: ~/resham/dsf

Enter Name that should be searched:reshama

Roll==> 2339      Age ==> 21      Name==> reshama
Display Main Menu

1.Create Data File
2.Add New Record in Data File
3.Display Record From Data File
4.Display Particular Record From Data File
5.Modify Particular Record From Data File
6.Delete Particular Record From Data File
7.Exit From the Program

Enter your choice : 5

Enter Name that should be searched:reshama

Enter New Record..

Enter the Roll, Age and Name : 2339 21 jagdish
```



```
ubuntu@ubuntu: ~/resham/dsf
Display Main Menu

1.Create Data File
2.Add New Record in Data File
3.Display Record From Data File
4.Display Particular Record From Data File
5.Modify Particular Record From Data File
6.Delete Particular Record From Data File
7.Exit From the Program

Enter your choice : 6

Enter Name that should be Deleted :kalpesh

Display Main Menu
```

```
ubuntu@ubuntu: ~/resham/dsf
1.Create Data File
2.Add New Record in Data File
3.Display Record From Data File
4.Display Particular Record From Data File
5.Modify Particular Record From Data File
6.Delete Particular Record From Data File
7.Exit From the Program

Enter your choice : 3

Roll==> 2339      Age ==> 21      Name==> jagdish
Roll==> 2343      Age ==> 20      Name==> shrikrushna
Display Main Menu

1.Create Data File
2.Add New Record in Data File
3.Display Record From Data File
4.Display Particular Record From Data File
5.Modify Particular Record From Data File
6.Delete Particular Record From Data File
7.Exit From the Program

Enter your choice : 7
ubuntu@ubuntu:~/resham/dsf$
```