

## SC165

**Problem Statement:** 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>
#include<string.h>
using namespace std;
class student
{
public:
int roll;
char name[10];
char div;
char add[10];
public:
void create();
void display();
int search();
};
void student::create()
{
student rec;
char ans;
ofstream fout;
fout.open("stud.txt",ios::app);
do
{
cout<<"\n\tEnter Roll No of Student : ";
cin>>rec.roll;
cout<<"\n\tEnter a Name of Student : ";
cin>>rec.name;
cout<<"\n\tEnter a Division of Student : ";
cin>>rec.div;
cout<<"\n\tEnter a Address of Student : ";
cin>>rec.add;
fout.write((char *)&rec,sizeof(rec))<<flush;
cout<<"\n\tDo You Want to Add More Records: ";
cin>>ans;
}while(ans=='y'||ans=='Y');
```

```

fout.close();
}
void student::display()
{
student rec;
ifstream fin;
fin.open("stud.txt",ios::in);
fin.seekg(0,ios::beg);
cout<<"\n\tThe Content of File are:\n";
cout<<"\n\tRoll\tName\tDiv\tAddress";
while(fin.read((char *)&rec,sizeof(rec)))
{
if(rec.roll!=-1)
cout<<"\n\t"<<rec.roll<<"\t"<<rec.name<<"\t"<<rec.div<<"\t"<<rec.add;
}
fin.close();
}
int student::search()
{
student rec;
int r,i=0;
ifstream fin;
fin.open("stud.txt",ios::in);
fin.seekg(0,ios::beg);
cout<<"\n\tEnter a Roll No: ";
cin>>r;
while(fin.read((char *)&rec,sizeof(rec)))
{
if(rec.roll==r)
{
cout<<"\n\tRecord Found...\n";
cout<<"\n\tRoll\tName\tDiv\tAddress";
cout<<"\n\t"<<rec.roll<<"\t"<<rec.name<<"\t"<<rec.div<<"\t"<<rec.add;
return i;
}
i++;
}
fin.close();
return 0;
}
int main()
{
student obj;
int ch,key;

```

```

char ans;
do
{
cout<<"\n\t***** Student Information *****";
cout<<"\n\t1. Create\n\t2. Display\n\t3. Search\n\t4. Exit";
cout<<"\n\t.... Enter Your Choice: ";
cin>>ch;
switch(ch)
{
case 1: obj.create();
break;
case 2: obj.display();
break;
case 3: key=obj.search();
if(key==0)
cout<<"\n\tRecord Not Found...\n";
break;
case 4:
break;
}
cout<<"\n\t.... Do You Want to Continue in Main Menu: ";
cin>>ans;
}while(ans=='y'||ans=='Y');
return 1;
}

```

The screenshot shows a terminal window with the following details:

- Title Bar:** The title bar shows "main.cpp" and "stud.txt".
- Input Area:** The input area is labeled "input" at the bottom.
- Output Log:**
  - \*\*\*\*\* Student Information \*\*\*\*\*
  - 1. Create
  - 2. Display
  - 3. Search
  - 4. Exit
  - ..... Enter Your Choice: 1
  - Enter Roll No of Student : 164
  - Enter a Name of Student : aryan
  - Enter a Division of Student : 1
  - Enter a Address of Student : as
  - Do You Want to Add More Records: y
  - Enter Roll No of Student : 165
  - Enter a Name of Student : shinde
  - Enter a Division of Student : 1
  - Enter a Address of Student : vs
  - Do You Want to Add More Records: y
  - Enter Roll No of Student : 166
  - Enter a Name of Student : pratik

```
main.cpp  stud.txt  :
1 ◆●●aryan●●●1as●●●◆●●shinde●●●1vs●●●◆●●pratik●●●1ps●●●◆●●thorat●●●1at●●●◆●●samyak●●●
▼ ◀ ▶ ⚙ ⚙ input
Enter Roll No of Student : 166
Enter a Name of Student : pratik
Enter a Division of Student : 1
Enter a Address of Student : ps
Do You Want to Add More Records: y
Enter Roll No of Student : 168
Enter a Name of Student : thorat
Enter a Division of Student : 1
Enter a Address of Student : at
Do You Want to Add More Records: y
Enter Roll No of Student : 169
Enter a Name of Student : samyak
Enter a Division of Student : 1
Enter a Address of Student : sw
Do You Want to Add More Records: n
..... Do You Want to Continue in Main Menu: y
```

```
1 ◆●●aryan●●●1as●●●◆●●shinde●●●1vs●●●◆●●pratik●●●1ps●●●◆●●thorat●●●1at●●●◆●●samyak●●●1sw●●●
▼ ◀ ▶ ⚙ ⚙ input
The Content of File are:
Roll  Name  Div  Address
164  aryan  1    as
165  shinde 1    vs
166  pratik 1    ps
168  thorat 1   at
169  samyak 1   sw
..... Do You Want to Continue in Main Menu: y
***** Student Information *****
1. Create
2. Display
3. Search
4. Exit
..... Enter Your Choice: 3
Enter a Roll No: 165
Record Found...
Roll  Name  Div  Address
165  shinde 1    vs
..... Do You Want to Continue in Main Menu: y
***** Student Information *****
1. Create
2. Display
3. Search
4. Exit
..... Enter Your Choice: 4
..... Do You Want to Continue in Main Menu: n
...Program finished with exit code 1
Press ENTER to exit console.
```