

**4. Write a c++ program to write student objects with variable-length records using any suitable record structure and to read from this file a student record using RRN.**

**Program Screenshots:**

```
#include<iostream>
#include<string.h>
#include<fstream>
#include<stdlib.h>
using namespace std;
class student
{
    public:char name[20],usn[10],age[5],sem[5],branch[5];
};

student s[100],t;
char buffer[45],temp1[20],temp2[20];
int count=0,i;
fstream fp;
void pack(student p)
{
    fp.open("hello.txt",ios::out|ios::app);
    strcpy(buffer,p.name);
    strcat(buffer,"|");
    strcat(buffer,p.usn);
    strcat(buffer,"|");
    strcat(buffer,p.age);
    strcat(buffer,"|");
    strcat(buffer,p.sem);
    strcat(buffer,"|");
    strcat(buffer,p.branch);
    strcat(buffer,"|");
    //    int x=strlen(buffer);
    //    for(int j=0;j<45-x;j++)
    //        strcat(buffer,"!");
    fp<<count<<"|"<<buffer<<endl;
    fp.close();
}

void write()
```

```

{
    cout<<"Enter the name\n";
    cin>>t.name;
    cout<<"Enter the usn\n";
    cin>>t.usn;
    cout<<"Enter the age\n";
    cin>>t.age;
    cout<<"Enter the sem\n";
    cin>>t.sem;
    cout<<"Enter the branch\n";
    cin>>t.branch;
    pack(t);
}

void search()
{
    cout<<"Enter the rrn\n";
    cin>>temp1;
    fp.open("hello.txt",ios::in);
    for(i=0;i<count;i++)
    {
        fp.getline(buffer,100);
        sscanf(buffer,"%[^|]|%[^|]|%[^|]|%[^|]|%[^|]|%[^|]|",temp2,s[i].name,s
[i].usn,s[i].age,s[i].sem,s[i].branch);
        if(strcmp(temp1,temp2)==0)
        {
            cout<<"Record found\n"<<s[i].name<<"\t"<<s[i].usn<<"\t"<<s[i].age<
<"\t"<<s[i].sem<<"\t"<<s[i].branch<<endl;
            break;
        }
    }
    if(i==count)
    cout<<"Record not found";
    fp.close();
}

int main()
{
    int c;

    fp.open("hello.txt",ios::out);
    fp.close();
    while(1)
    {
        cout<<"\n1.Write\n 2.Search\n 3.Exit\n Enter your choice\n";
        cin>>c;
        switch(c)
        {
            case 1:count++;write();break;

```

```

        case 2:search();break;
        default:exit(0);
    }
}
}

```

## Output:

```

sooraj@Asus-F-15:~/FS lab/program-4$ g++ program-4.cpp
sooraj@Asus-F-15:~/FS lab/program-4$ ./a.out

```

```

1.Write
2.Search
3.Exit
Enter your choice
1
Enter the name
sooraj
Enter the usn
1cr18is151
Enter the age
22
Enter the sem
6
Enter the branch
ise

```

```

1.Write
2.Search
3.Exit
Enter your choice
2
Enter the rrn
1
Record found
sooraj 1cr18is15122 22 6 ise

```

```

1.Write
2.Search
3.Exit
Enter your choice
2
Enter the rrn
2
Record not found

```