

A Brief History of C++

In 1979, Bjarne Stroustrup, a Danish computer scientist, began work on "C with Classes", the predecessor to C++. The motivation for creating a new language originated from Stroustrup's experience in programming for his Ph.D. thesis. Stroustrup found that Simula had features that were very helpful for large software development, but the language was too slow for practical use, while BCPL was fast but too low-level to be suitable for large software development. When Stroustrup started working in AT&T Bell Labs, he had the problem of analyzing the UNIX kernel with respect to distributed computing. Remembering his Ph.D. experience, Stroustrup set out to enhance the C language with Simula-like features. C was chosen because it was general-purpose, fast, portable and widely used. As well as C and Simula's influences, other languages also influenced C++, including ALGOL 68, Ada, CLU and ML. Initially, Stroustrup's "C with Classes" added features to the C compiler, Cpre, including classes, derived classes, strong typing, inlining and default arguments. In 1983, "C with Classes" was renamed to "C++" (++ being the increment operator in C), adding new features that included virtual functions, function name and operator overloading, references, constants, type-safe free-store memory allocation (new/delete), improved type checking, and BCPL style single-line comments with two forward slashes (//). Furthermore, it included the development of a standalone compiler for C++, Cfront. In 1985, the first edition of *The C++ Programming Language* was released, which became the definitive reference for the language, as there was not yet an official standard. The first commercial implementation of C++ was released in October of the same year. In 1989, C++ 2.0 was released, followed by the updated second edition of *The C++ Programming Language* in 1991. New features in 2.0 included multiple inheritance, abstract classes, static member functions, const member functions, and protected members. In 1990, *The Annotated C++ Reference Manual* was published. This work became the basis for the future standard. Later feature additions included templates, exceptions, namespaces, new casts, and a boolean type. After the 2.0 update, C++ evolved relatively slowly until, in 2011, the C++11 standard was released, adding numerous new features, enlarging the standard library further, and providing more facilities to C++ programmers. A minor C++14 update released in December 2014, various new additions were introduced in C++17.

Classes and Objects

A **class** in C++ is a user defined type or data structure declared with keyword *class* that has data and functions (also called methods) as its members whose access is governed by the three access specifiers *private*, *protected* or *public* (by default access to members of a class is *private*). The private members are not accessible outside the class; they can be accessed only through methods of the class. The public members form an interface to the class and are accessible outside the class.

Instances of a class data type are known as objects and can contain member variables, constants, member functions, and overloaded operators defined by the programmer

Strings

Strings are arrays of characters. The special character '\0' (NUL) is used to indicate the end of a string. The line `#include <string.h>` is needed to inform C++ that you are using the string function library.

Function Description

```
strcpy(string1, string2) //Copies string2 into string1
strcat(string1, string2) //Concatenates string2 onto the end of string1
length = strlen(string) //Gets the length of a string
strcmp(string1, string2) //0 if string1 equals string2; otherwise, nonzero
```

Scope and Storage Class

All variables have two attributes, *scope* and *storage class*. The *scope* of a variable is the area of the program where the variable is valid. A *global variable* is valid from the point it is declared to the end of the program. A *local variable's* scope is limited to the block where it is declared and cannot be accessed (set or read) outside that block. A *block* is a section of code enclosed in curly braces (`{}`).

Functions

Functions allow you to group commonly used code into a compact unit that can be used repeatedly. You have already encountered one function, `main`. It is a special function called at the beginning of the program. All other functions are directly or indirectly called from `main`.

Files System

| Name | Function |
|------------------------|---|
| <code>fopen()</code> | Opens a file |
| <code>fclose()</code> | Closes a file |
| <code>putc()</code> | Writes a character to a file |
| <code>fputc()</code> | Same as <code>putc()</code> |
| <code>getc()</code> | Reads a character from a file |
| <code>fgetc()</code> | Same as <code>getc()</code> |
| <code>fgets()</code> | Reads a string from a file |
| <code>fputs()</code> | Writes a string to a file |
| <code>fseek()</code> | Seeks to a specified byte in a file |
| <code>ftell()</code> | Returns the current file position |
| <code>fprintf()</code> | Is to a file what <code>printf()</code> is to the console |
| <code>fscanf()</code> | Is to a file what <code>scanf()</code> is to the console |
| <code>feof()</code> | Returns true if end-of-file is reached |
| <code>ferror()</code> | Returns true if an error has occurred |
| <code>rewind()</code> | Resets the file position indicator to the beginning of the file |
| <code>remove()</code> | Erases a file |
| <code>fflush()</code> | Flushes a file |

ALGORITHM:-

STEP 1:-Start

STEP 2:-Declare 'ch' variable

STEP 3:- a) To print 'GPJ Database Portal'
b) To print 'Press 1 for Admin Portal'
c) To print 'Press 2 for Faculty Portal'
d)To print 'Press 3 for Student Portal'
e)To get user choice

STEP 4:- If(ch= = 1)

To declare adminuser and adminpass variable

To print 'Welcome to login portal'

To get username and password of admin

To print 'Welcome to admin panel'

To print Menu:-

1. Add faculty Record
2. Add multiple records of faculty
3. View all record of faculty
4. Delete a faculty record
5. Add a student record
6. Add multiple records of student
7. View all records of students
8. To delete a student record
9. Exit

f) To get user choice & stored in 'tmp'

g)If(tmp == 1)

To call the getdata() fuction

h)If(tmp == 2)

do

{

To call gatfdata () fuction

To allocate dynamic memory

To print 'Enter '0' if you want to enter more records

To get 'm' variable

}while(m==0);

If(tmp ==3)

To call fadisplay() function

j) If (tmp == 4)

1. To get faculty id which will delete the record stored & stored in tmpfid

2.Delete the record

k)If(tmp= = 5)

To call the getsdata() function

l)If(tmp= = 6)

do

{

To call gatsdata () fuction

To allocate dynamic memory

To print 'Enter '0' if you want to enter more records

To get 'm' variable

} while(m==0);

m)If(tmp== 7)

To call stdisplay() function

n)If(tmp== 8)

1. To get roll number which will delete the record store in 'tmpid'

2. Delete the record.

o) If(tmp== 9)

Closing the admin panel

STEP 5:- If(ch==2)

To print 'Welcome to faculty login page'

To get username and password of faculty

To print 'Welcome to faculty panel'

To print Menu :-

1. View your profile

2. Know your subject

3. Add a subject

4. Delete a subject

5. Modify your profile

e) To get user choice & stored in 'choice' variable'

f)If(choice ==1)

To call faprofile() function

g)If(choice ==2)

To call knowfasub() function

h)If(choice ==3)

To call addfasub() function

i)If(choice ==4)

To call delfasub() function

j)If(choice ==5)

To call modfaprofile() function

k)To print 'Enter y to continue : otherwise n;

STEP 6:- If(ch==3)

To print 'Welcome to student page'

To get username and password of student

To print 'Welcome to student panel'

To print Menu :-

1. View your profile

2. Know your subject

3. Add a subject

4. Delete a subject

5. Modify your profile

e) To get user choice & stored in 'choice' variable'

```

f)If(inchoice ==1)
    To call stprofile() function
g)If(inchoice ==2)
    To call knowstsub() function
h)If(inchoice ==3)
    To call addstsub() function
i)If(inchoice ==4)
    To call delstsub() function
j)If(inchoice ==5)
    To call modstprofile() function
k)To print 'Enter y to continue : otherwise n;
STEP 7 :- If(ch<1 || ch>3)
    {
        To print invalid input provided .
    }
STEP 8 :- End

```

‘C’ PROGRAM CODE :-

```

#include<iostream.h>
#include<stdlib.h>
#include<stdio.h>
#include<string.h>
#include<fstream.h>
#include<conio.h>
void main()
{
    int ch;
    clrscr();
    cout<<"\n\n\n\t\tWELLCOME TO GPJ DATABASE PORTAL";
    cout<<"\n\n\n\t\tEnter to continue";
    getch();
    clrscr();
    cout<<"\n\n\t\tMENU";
    cout<<"\n\tPress 1 for admin portal";
    cout<<"\n\tPress 2 for faculty portal";
    cout<<"\n\tPress 3 for student portal";
    cout<<"\n Enter your choice:";
    cin>>ch;
    clrscr();
    if(ch==1)
    {
        char adminuser[20],adminpass[20];
        cout<<"\n\n\t\tWELCOME TO ADMIN LOGIN PORTAL";
    }
}

```

```

cout<<"\n\n\tEnter the username:";
cin>>adminuser;
cout<<"\n\tEnter the Password:";
for(int k=0;k<8;k++)
{
    adminpass[k]=getch();
    cout<<"*";
}
getch();
adminpass[k]=NULL;
if((strcmp(adminuser,"admin")==0)&&(strcmp(adminpass,"password")==0))
{
    clrscr();
}
else
{
    cout<<"\n\n\t\tInvalid Access to portal";
    cout<<"\n\n\t\tThank You!!!";
    getch();
    exit(0);
}
char opera='y';
do
{
    int tmp;
    cout<<"\n\n\t\tWELCOME TO ADMIN PANEL";
    cout<<"\n\nPress 1 to add faculty record";
    cout<<"\nPress 2 to Add multiple records of faculty";
    cout<<"\nPress 3 to View all records of faculty";
    cout<<"\nPress 4 to Delete a faculty record ";
    cout<<"\nPress 5 to Add a student record ";
    cout<<"\nPress 6 to Add multiple records of students ";
    cout<<"\nPress 7 to View all records of students";
    cout<<"\nPress 8 to Delete a student record ";
    cout<<"\nPress 9 to Exit";
    cout<<"\n\n Enter your choice:";
    cin>>tmp;
    clrscr();
    if(tmp==1)
    {
        cout<<"\n\tEnter the details:-";
        fstream fs;
        fs.open("fainfo.txt",ios::in|ios::out|ios::ate);
        a.getfadata();
        fs.write((char *)&a,sizeof(Admin));
        fs.close();
    }
}

```

```

    cout<<"\nRecord entered successfully...";
}
if(tmp==2)
{
    int m=0;
    fstream fs;
    fs.open("fainfo.txt",ios::in|ios::out|ios::ate);
    do
    {
        cout<<"\n Enter the details:-";
        a.getfadata();
        fs.write((char *)&a,sizeof(Admin));
        cout<<"\n Press 0 if you want to enter more records:";
        cin>>m;
    } while(m==0);
    fs.close();
    cout<<"\nRecord entered successfully...";
}
if(tmp==3)
{
    fstream fs;
    fs.open("fainfo.txt",ios::in);
    fs.seekg(0);
    while(!fs.eof())
    {
        fs.read((char *)&a,sizeof(Admin));
        a.fadisplay();
    }
    fs.close();
}
if(tmp==4)
{
    char tmpfaid[15];
    int de=0,result=-1;
    cout<<"\nEnter the faculty ID. :-";
    cin>>tmpfaid;
    fstream fs;
    fs.open("fainfo.txt",ios::in);
    fstream fs1;
    fs1.open("fanewinfo.txt",ios::out|ios::ate);
    while(!fs.eof())
    {
        fs.read((char *)&a,sizeof(Admin));
        result=strcmp(tmpfaid,a.roll_no);
        if(result==0)
        {

```

```

        de=1;
    }
    else
        fs1.write((char *)&a,sizeof(Admin));
    }
    if(de==1)
    {
        cout<<"\nRecord deleted successfully....";
    }
    else
    {
        cout<<"\nRecord not found...";
    }
    fs.close();
    fs1.close();
    remove("fainfo.txt");
    rename("fanewinfo.txt","fainfo.txt");
}
if(tmp==5)
{
    cout<<"\nEnter the details :-";
    fstream fs;
    fs.open("stinfo.txt",ios::in|ios::out|ios::ate);
    a.getstdata();
    fs.write((char *)&a,sizeof(Admin));
    fs.close();
    cout<<"\nRecord entered successfully....";
}
if(tmp==6)
{
    int m=0;
    fstream fs;
    fs.open("stinfo.txt",ios::in|ios::out|ios::ate);
    do
    {
        cout<<"\n Enter the details:-";
        a.getstdata();
        fs.write((char *)&a,sizeof(Admin));
        cout<<"\n Press 0 if you want to enter more records:";
        cin>>m;
    } while(m==0);
    fs.close();
    cout<<"\nRecord entered successfully...";
}
if(tmp==7)
{

```



```

fstream fs;
fs.open("stinfo.txt",ios::in);
fs.seekg(0);
while(!fs.eof())
{
    fs.read((char *)&a,sizeof(Admin));
    a.stddisplay();
}
fs.close();
}
if(tmp==8)
{
    char tmpstid[15];
    int de=0,result=-1;
    cout<<"\nEnter the student roll no. :-";
    cin>>tmpstid;
    fstream fs;
    fs.open("stinfo.txt",ios::in);
    fstream fs1;
    fs1.open("stnewinfo.txt",ios::out|ios::ate);
    while(!fs.eof())
    {
        fs.read((char *)&a,sizeof(Admin));
        result=strcmp(tmpstid,a.roll_no);
        if(result==0)
        {
            de=1;
        }
        else
            fs1.write((char *)&a,sizeof(Admin));
    }
    if(de==1)
    {
        cout<<"\nRecord deleted successfully....";
    }
    else
    {
        cout<<"\nRecord not found...";
    }
    fs.close();
    fs1.close();
    remove("stinfo.txt");
    rename("stnewinfo.txt","stinfo.txt");
}
if(tmp==9)
{

```

```

        cout<<"\n\n\n\t\tTHANK YOU !!!";
        getch();
        exit(0);
    }
    if(tmp<1||tmp>9)
    {
        clrscr();
        cout<<"\n\n\n\t\tINVALID INPUT.....";
    }
    getch();
    cout<<"\nPress y for more operations ; otherwise n :";
    cin>>opera;
    if(opera!='y')
    {
        getch();
        clrscr();
        cout<<"\n\n\n\t\tTHANK YOU !!!";
        getch();
    }
    }while(opera=='y'||opera=='Y');
}
if(ch==2)
{
    clrscr();
    char un[20];
    int val,s=20;
    cout<<"\n\t\tWELCOME TO FACULTY LOGIN PAGE";
    cout<<"\n\nEnter the user name";
    cin>>::un;
    fstream fs;
    fs.open("fainfo.txt",ios::in|ios::binary);
    fs.seekg(0);
    while(!fs.eof())
    {
        val=-1;
        fs.read((char *)&f,sizeof(Admin));
        val=f.login();
        if(val==1)
        {
            s=1;
            break;
        }
    }
    fs.close();
    if(s==1)
    {

```

```

    clrscr();
}
if(s!=1)
{
    clrscr();
    int ho=0;
    cout<<"\n\n\tYour login credentials are In-correct";
    cout<<"\nThe username is your ID";
    cout<<"\nThe password is case-sensitive.";
    cout<<"\nPress 1 to recover password & 2 to re-attempt login";
    cout<<"\nEnter your choice";
    cin>>ho;
    if(ho==1)
    {
        cout<<"\nEnter the username:-";
        cin>>::un;
        fstream fs;
        fs.open
        ("fainfo.txt",ios::in|ios::binary);
        fs.seekg(0);
        int re,su=-1;
        while(!fs.eof())
        {
            re=-1;
            fs.read((char *)&f,sizeof(Admin));
            re=f.recover();
            if(re==1)
            {
                su=1;
                break;
            }
        }
        fs.close();
        if(su==1)
        {
            getch();
            clrscr();
            cout<<"\n\n\n\n\t\tTHANK YOU!!!";
            getch();
            exit(0);
        }
        else
        {
            cout<<"\nYou are a invalid user.";
            getch();
            exit(0);
        }
    }
}

```

```

    }
}
if(ho==2)
{
    cout<<"\n\nEnter the username :";
    cin>>::un;
    fstream fs;
    fs.open
    ("fainfo.txt",ios::in|ios::binary);
    fs.seekg(0);
    int suc=-1,valu;
    while(!fs.eof())
    {
        valu=-1;
        fs.read((char *)&f,sizeof(Admin));
        valu=f.login();
        if(valu==1)
        {
            suc=1;
            break;
        }
    }
    fs.close();
    if(suc==1)
    {
        clrscr();
    }
    else
    {
        getch();
        cout<<"\n\nYou are an invalid user...";
        cout<<"\n\nTHANK YOU !!!";
        getch();
        exit(0);
        exit(0);
    }
}
if(ho!=1&&ho!=2)
{
    cout<<"\n\nInvalid choice";
    cout<<"\n\n\t\tTHANK YOU !!!";
    getch();
    exit(0);
}
}
char con='y';

```

```

do
{
    clrscr();
    cout<<"\n\n\t\tWelcome to faculty panel";
    cout<<"\n\n\t\t\t Your user ID is : "<<::un;
    cout<<"\n\n Press 1 to view your profile";
    cout<<"\n Press 2 to know your subjects";
    cout<<"\n Press 3 to add a subject";
    cout<<"\n Press 4 to delete a subject";
    cout<<"\n Press 5 to modify your profile";
    int choice;
    cout<<"\n\n Enter your choice:";
    cin>>choice;
    if(choice==1)
    {
        fstream fs;
        fs.open("fainfo.txt",ios::in);
        fs.seekg(0);
        while(!fs.eof())
        {
            int x=0;
            fs.read((char *)&f,sizeof(Admin));
            x=f.faprofile();
            if(x==1)
            {
                break;
            }
        }
        fs.close();
    }
    if(choice==2)
    {
        fstream fs;
        fs.open("fainfo.txt",ios::in);
        fs.seekg(0);
        int y;
        while(!fs.eof())
        {

            fs.read((char *)&f,sizeof(Admin));
            int y=f.knowfasub();
            if(y==0)
            {
                break;
            }
        }
    }
}

```

```

        fs.close();
    }
    if(choice==3)
    {
        fstream fs;
        fstream fs1;
        fs.open("fainfo.txt",ios::in|ios::binary);
        fs1.open("tmpfainfo.txt",ios::out|ios::ate);
        fs.seekg(0);
        while(!fs.eof())
        {
            fs.read((char *)&f,sizeof(Admin));
            f.addfasub();
            fs1.write((char *)&f,sizeof(Admin));
        }
        fs.close();
        fs1.close();
        remove("fainfo.txt");
        rename("tmpfainfo.txt","fainfo.txt");
    }
    if(choice==4)
    {
        fstream fs;
        fs.open("fainfo.txt",ios::in|ios::binary);
        fstream fs1;
        fs1.open("delfainfo.txt",ios::out|ios::ate);
        fs.seekg(0);
        while(!fs.eof())
        {
            fs.read((char *)&f,sizeof(Admin));
            f.delfasub();
            fs1.write((char *)&f,sizeof(Admin));
        }
        fs.close();
        fs1.close();
        remove("fainfo.txt");
        rename("delfainfo.txt","fainfo.txt");
    }
    if(choice==5)
    {
        fstream fs;
        fstream fs1;
        fs.open("fainfo.txt",ios::in|ios::binary);
        fs.seekg(0);
        fs1.open("modfainfo.txt",ios::out|ios::ate);
        while(!fs.eof())

```

```

        {
            fs.read((char *)&f,sizeof(Admin));
            f.modfaprofile();
            fs1.write((char *)&f,sizeof(Admin));
        }
        fs.close();
        fs1.close();
        remove("fainfo.txt");
        rename("modfainfo.txt","fainfo.txt");
    }
    if(choice<1||choice>5)
        cout<<"\nInvalid input provided !!!";

    cout<<"\n\n\t\t\tEnter to continue";
    getch();
    cout<<"\n\nPress y to continue ; otherwise n:";
    cin>>con;
    if(con!='y' && con!='Y')
    {
        clrscr();
        cout<<"\n\n\n\n\n\t\t\tThank you !!!";
        getch();
        exit(0);
    }
}while(con=='y'||con=='Y');
}
if(ch==3)
{
    clrscr();
    int value,s1=0;
    cout<<"\n\t\t\t Welcome to student login page";
    cout<<"\n\nEnter the username :";
    cin>>::un;
    fstream fs;
    fs.open("stinfo.txt",ios::in|ios::binary);
    fs.seekg(0);
    while(!fs.eof())
    {
        value=-1;
        fs.read((char *)&f,sizeof(Admin));
        value=f.login();
        if(value==1)
        {
            s1=1;
            break;
        }
    }
}

```

```

}
fs.close();
if(s1==1)
{
    clrscr();
}
if(s1!=1)
{
    clrscr();
    int sho=0;
    cout<<"\n\n\t\tYour login creadentials are incorrect";
    cout<<"\n The user name is your roll no";
    cout<<"\n Password is case sensitive";
    cout<<"\nPress 1 to Recover password ";
    cout<<"\nPress 2 to reattempt login";
    cout<<"\nEnter your choice";
    cin>>sho;
    if(sho==1)
    {
        cout<<"\n Enter the username:-";
        cin>>::un;
        fstream fs;
        fs.open("stinfo.txt",ios::in|ios::binary);
        fs.seekg(0);
        int re,su=-1;
        while(!fs.eof())
        {
            re=-1;
            fs.read((char *)&f,sizeof(Admin));
            re=f.recover();
            if(re==1)
            {
                su=1;
                break;
            }
        }
        fs.close();
        if(su==1)
        {
            getch();
            clrscr();
            cout<<"\n\n\n\n\t\tThank You !!!";
            getch();
            exit(0);
        }
        else
    }

```



```

{
    cout<<"\n You are a Invalid user.";
    cout<<"\n Thank you !!!";
    getch();
    exit(0);
}
}
if(sho==2)
{
    cout<<"\n\nEnter the user name:-";
    cin>>::un;
    fstream fs;
    fs.open("stinfo.txt",ios::in|ios::binary);
    fs.seekg(0);
    int suc=-1,valu;
    while(!fs.eof())
    {
        valu=-1;
        fs.read((char *)&f,sizeof(Admin));
        valu=f.login();
        if(valu==1)
        {
            suc=1;
            break;
        }
    }
    fs.close();
    if(suc==1)
    clrscr();
    else
    {
        getch();
        cout<<"\nYou are an invalid user....";
        cout<<"\n Thank you !!!";
        getch();
        exit(0);
        exit(0);
    }
}
if(sho!=1&&sho!=2)
{
    cout<<"\n\nInvalid input provided...";
    cout<<"\n\n\t\tThank you !!!";
    getch();
    exit(0);
}

```

```

}
char moreop='y';
do
{
    clrscr();
    cout<<"\n\n\t\t WELCOME TO STUDENT PANEL ";
    cout<<"\n\n\t\t\t\t your user ID is : "<<::un;
    cout<<"\n\n Press 1 to view your profile.";
    cout<<"\n\n Press 2 to know your subjects.";
    cout<<"\n\n Press 3 to add a subject.";
    cout<<"\n\n Press 4 to delete a subject.";
    cout<<"\n\n Press 5 to modify your profile.";
    int inchoice;
    cout<<"\n\nEnter your choice";
    cin>>inchoice;

    if(inchoice==1)
    {
        fstream fs;
        fs.open("stinfo.txt",ios::in);
        fs.seekg(0);
        int x;
        while(!fs.eof())
        {
            x=0;
            fs.read((char *)&f,sizeof(Admin));
            x=f.stprofile();
            if(x==1)
            {
                break;
            }
        }
        fs.close();
    }
    if(inchoice==2)
    {
        fstream fs;
        fs.open("stinfo.txt",ios::in);
        fs.seekg(0);
        int y;
        while(!fs.eof())
        {
            y=0;
            fs.read((char *)&f,sizeof(Admin));
            int y=f.knowstsub();

```

```

        if(y==1)
        {
            break;
        }
    }
    fs.close();
}
if(inchoice==3)
{
    fstream fs;
    fstream fs1;
    fs.open("stinfo.txt",ios::in|ios::binary);
    fs.open("tmpstinfo.txt",ios::out|ios::ate);
    fs.seekg(0);
    while(!fs.eof())
    {
        fs.read((char *)&f,sizeof(Admin));
        f.addstsub();
        fs1.write((char *)&f,sizeof(Admin));
    }
    fs.close();
    fs1.close();
    remove("stinfo.txt");
    rename("tmpstinfo.txt","stinfo.txt");
}
if(inchoice==4)
{
    fstream fs;
    fs.open("stinfo.txt",ios::in|ios::binary);
    fstream fs1;
    fs1.open("delstinfo.txt",ios::out|ios::ate);
    fs.seekg(0);
    while(!fs.eof())
    {
        fs.read((char *)&f,sizeof(Admin));
        f.delstsub();
        fs1.write((char *)&f,sizeof(Admin));
    }
    fs.close();
    fs1.close();
    remove("stinfo.txt");
    rename("delstinfo.txt","stinfo.txt");
}
if(inchoice==5)
{
    fstream fs;

```

```

    fstream fs1;
    fs.open("stinfo.txt",ios::in|ios::binary);
    fs.seekg(0);
    fs1.open("modstinfo.txt",ios::out|ios::ate);
    while(!fs.eof())
    {
        fs.read((char *)&f,sizeof(Admin));
        f.modstprofile();
        fs1.write((char *)&f,sizeof(Admin));
    }
    fs.close();
    fs1.close();
    remove("stinfo.txt");
    rename("modstinfo.txt","stinfo.txt");
}
if(inchoice<1||inchoice>5)
    cout<<"\nInvalid input provided....";
cout<<"\n\n\t\t\tEnter to continue";
getch();
cout<<"\n\nPress y , otherwise n to perform more operations:";
cin>>moreop;
if(moreop!='Y'&&moreop!='y')
{
    clrscr();
    cout<<"\n\n\n\t\t\tThank you !!!";
    getch();
    exit(0);
}
}while(moreop=='Y'||moreop=='y');
getch();
}
if(ch<1||ch>3)
{
    cout<<"\nInvalid input provided....";
    getch();
    clrscr();
    cout<<"\n\n\n\t\t\tTHANK YOU !!!";
}
}

```