

BOOKSHOP MANAGEMENT SYSTEM



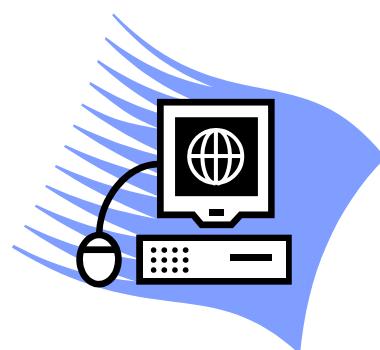
BOOKSHOP MANAGEMENT

A PROJECT REPORT

SUBMITTED BY
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CLASS XII-A

GUIDED BY
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OUR OWN ENGLISH HIGH SCHOOL

2019-2020



Our Own English High School, Sharjah

Certificate

This is to certify that Rithika kathirvel of class 12-A
Registration No. _____ has satisfactorily
completed the project file in Computer Science during the
academic year 2019-20 as prescribed by C. B. S. E,
New Delhi, India.

Date of Examination: _____

Signature of
Teacher -in -charge

Signature of
External Examiner

ACKNOWLEDGEMENT

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- RITHIKA KATHIRVEL

ABSTRACT

Bookshop management system has demands in both private and public bookshops. This software helps in managing data in a well ordered manner. The software is designed on Borland C++ 5.02. This software is designed specially to maintain the data in sequential ordereed manner. The proposed software is a menu driven system. The system reduces the time, effort and the paper works of book keeping all the records. The system is highly efficient and has less time complexity.

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System Specification

a) Hardware Requirements:

- Processor: Pentium processor with Windows
- OS Memory: 512 MB
Disk Capacity: 1 GB

b) Software Requirements:

- Borland C++

PROJECT OVERVIEW:

In '**Bookshop management system**' the user can decide to continue as bookshop staff or customers. The bookshop staffs have a username and password for their login and access to functions while the customers only have access to view all books available in the shop.

Listed below are the main functions of this system:

1. Add Book Records: This feature allows users to add a new book to bookshop management system application. Information such as name of the book, name of the author and number of copies should be provided, and the data is stored in file.

2. Show Book Records: The add book records can be listed with this feature along with the author's name and number of copies of the book added.

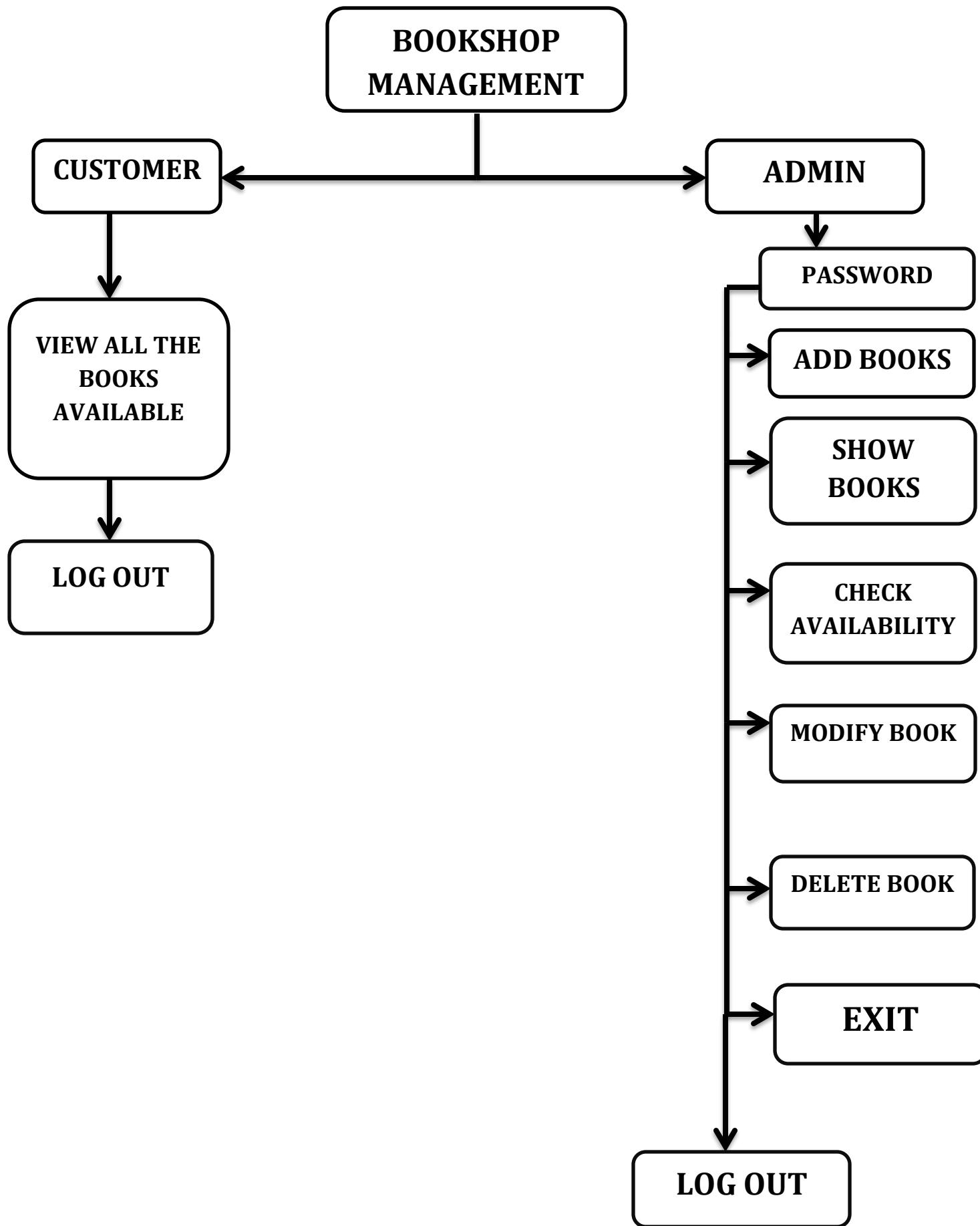
3. Check Availability: If the staffs want to check the availability of a particular book, this feature comes handy. The book is searched using the book number. Details of the particular book are displayed if the record is found in the file.

4. Modify Book Record: The bookshop staff can modify the information of a book. The staff can edit the book's name, author's name and the number of copies. All modified data are then stored in file.

5. Delete Book Record: To delete book from the file of bookshop management, this feature is used. For this the book number should be provided.

The Header files used in this system are:

- 1. #include<fstream.h>**
- 2. #include<conio.h>**
- 3. #include<string.h>**
- 4. #include<iomanip.h>**
- 5. #include<iostream.h>**
- 6. #include<stdio.h>**
- 7. #include<stdlib.h>**



DATA FILE DESIGN

- 1. fp:** It is a file used for store the book data.
- 2. users:** It is a file used for store the username and password of the system administrators.
- 3. fp2:** It is a file used while deleting the book record from file ‘fp’.

- **SPECIMEN:**

1. Book details → “book.dat”

Serial number	Field number	Field description
1	char book_number[30]	Book code
2	char book_name[50]	Book name
3	char author_name[20]	Author's name
4	int num_copies	Number of copies of the book

2. Used for deletion → “Temp.dat”

CLASS DESCRIPTION

1. Class- User

Data attributes :

- Username
- password

Methods:

- get_username()
- returnpass()
- returnname()

2. Class- Book

Data attributes :

- book_number
- char book_name
- char author_name
- int num_copies

Methods:

- get_book_details()
- showbook()
- modifybook()
- getbooknumber()
- report()

FUNCTION DESCRIPTION

1. void write_book():

Function To Add Book Into File ‘fp’.

2. void display_a_book(char n[]):

Function To Check Availability on A Book and Display If Found.

3. void modify_book():

Function To Modify Book In File ‘fp’.

4. void delete_book():

Function To Delete Book From File ‘fp’.

5. void display_allbook():

Function to Show all the Book in File ‘fp’.

6. void admin():

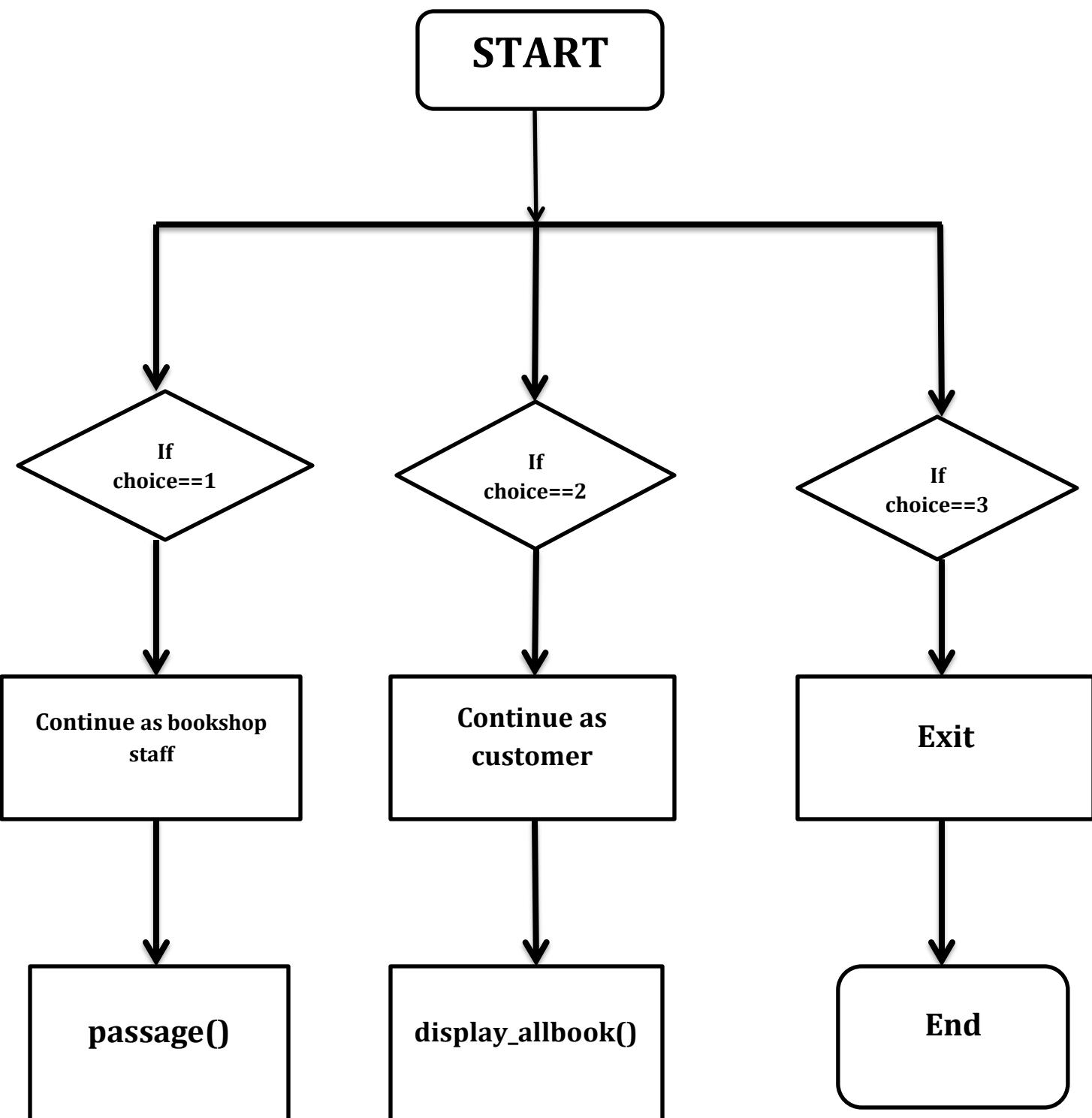
Function from Which the Admin Can Access the Above Functions.

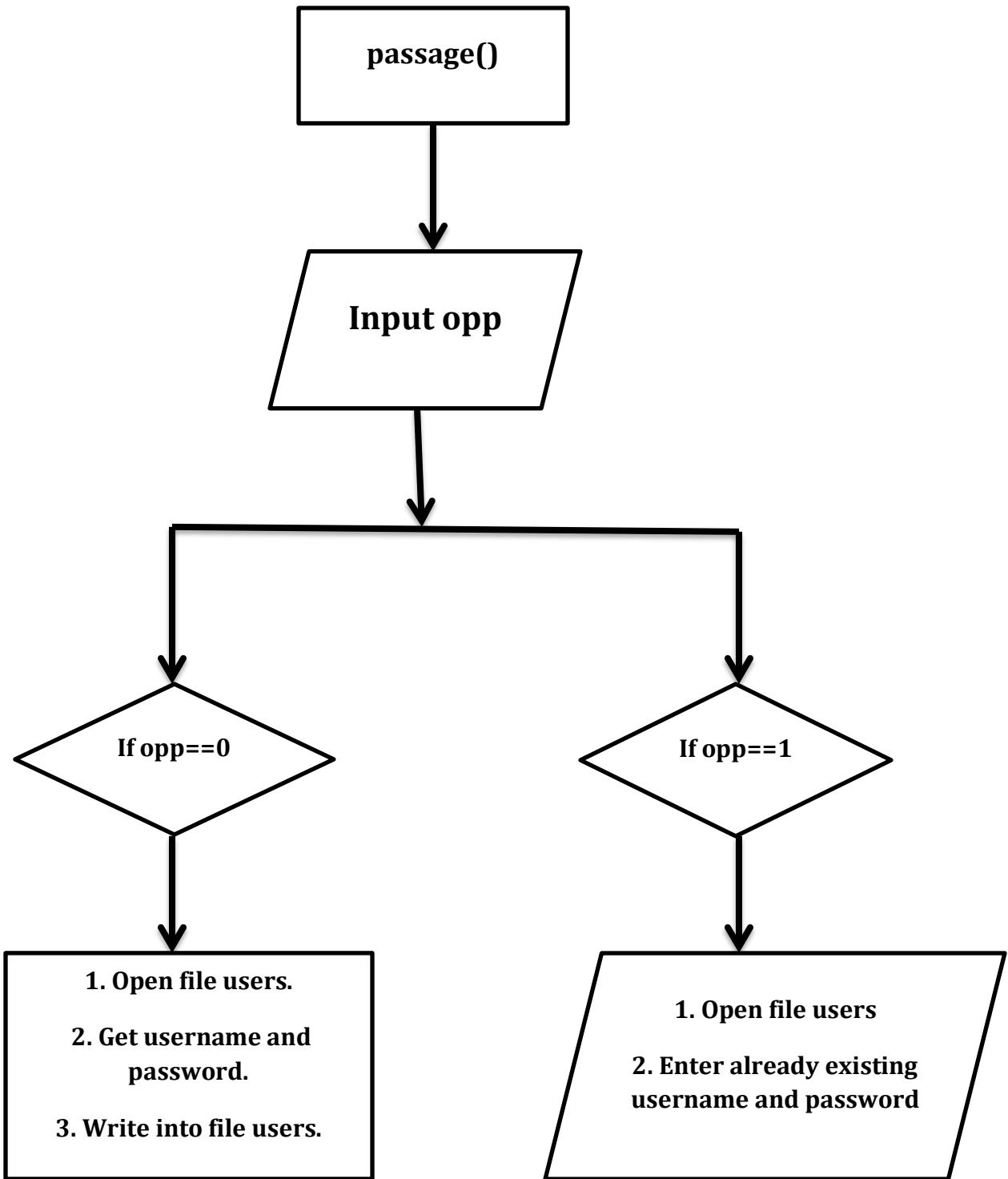
7. void passage():

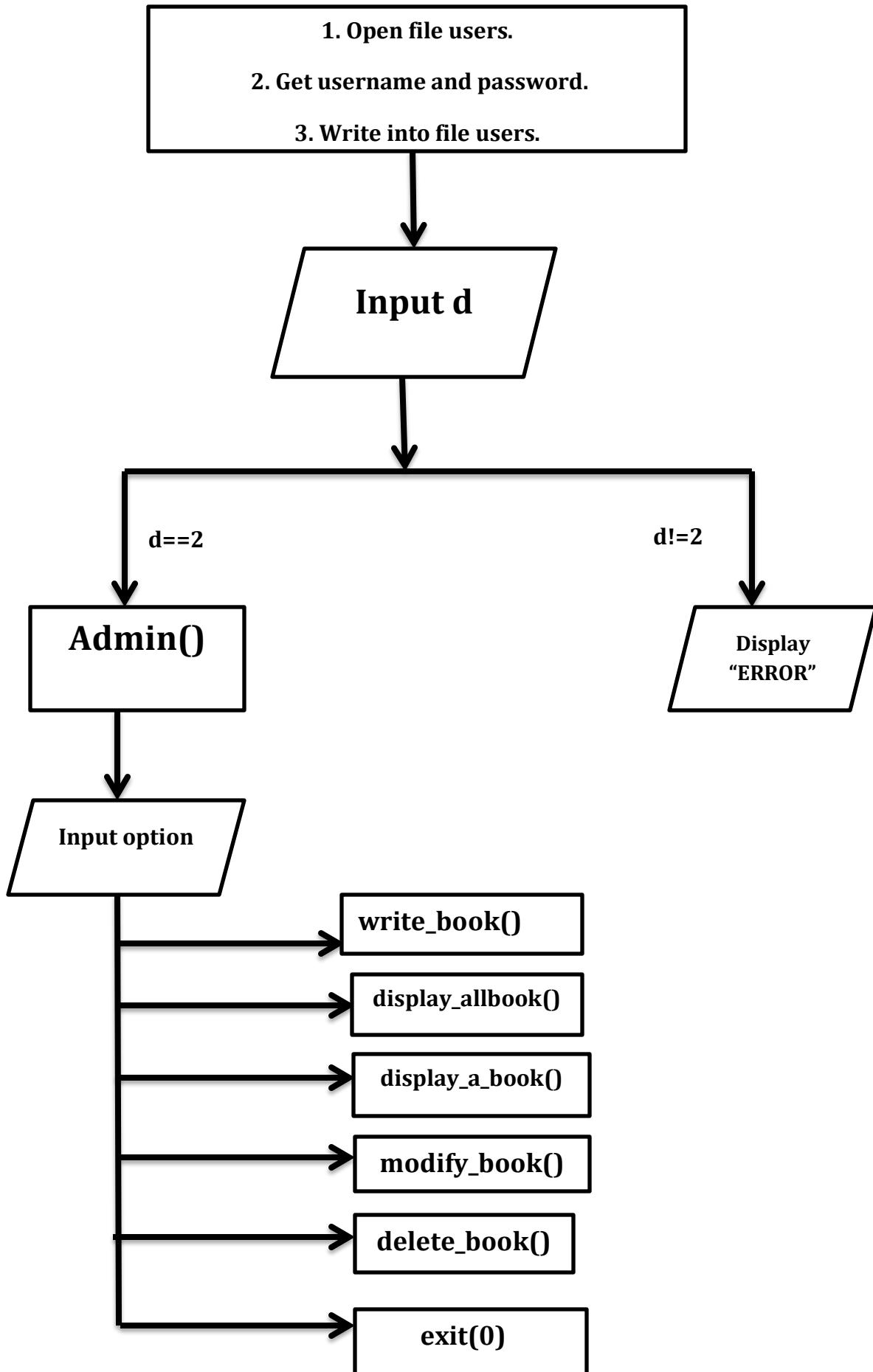
Function Which Allows Only Authorized Person To Access Function void admin().

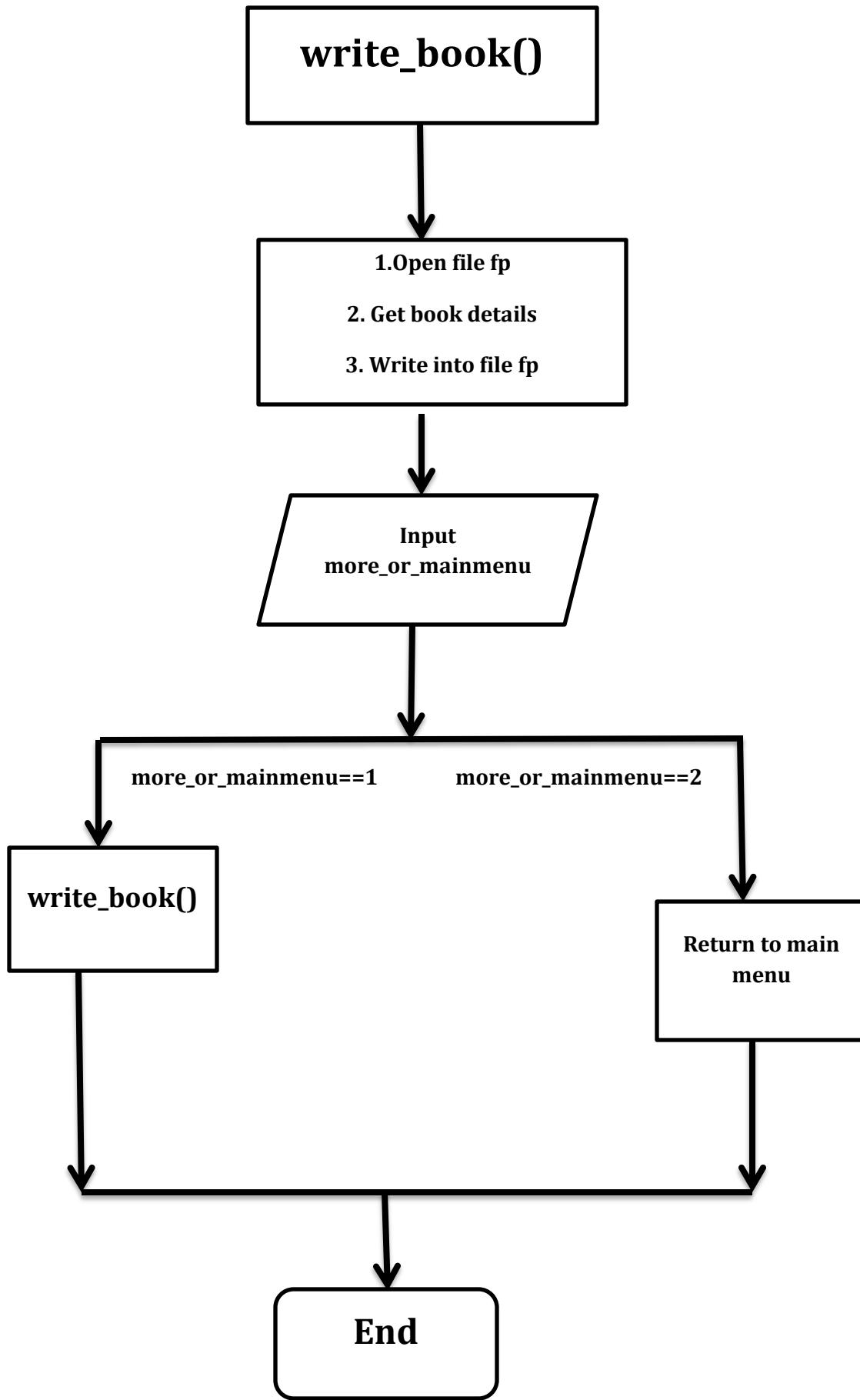
8. void main():

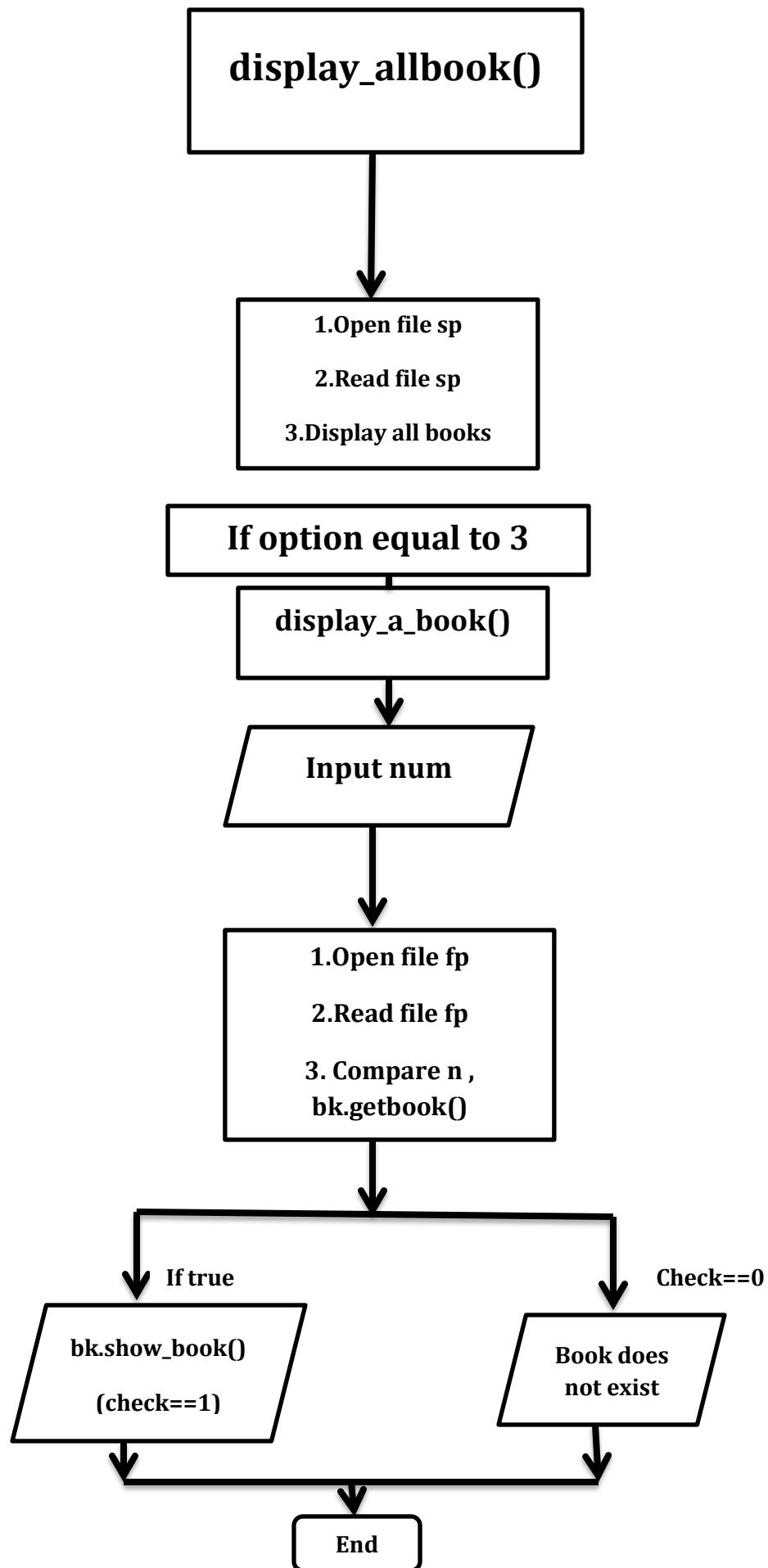
Function Which Acts as the Entry Function For the Program. This Function contains The Main Menu.

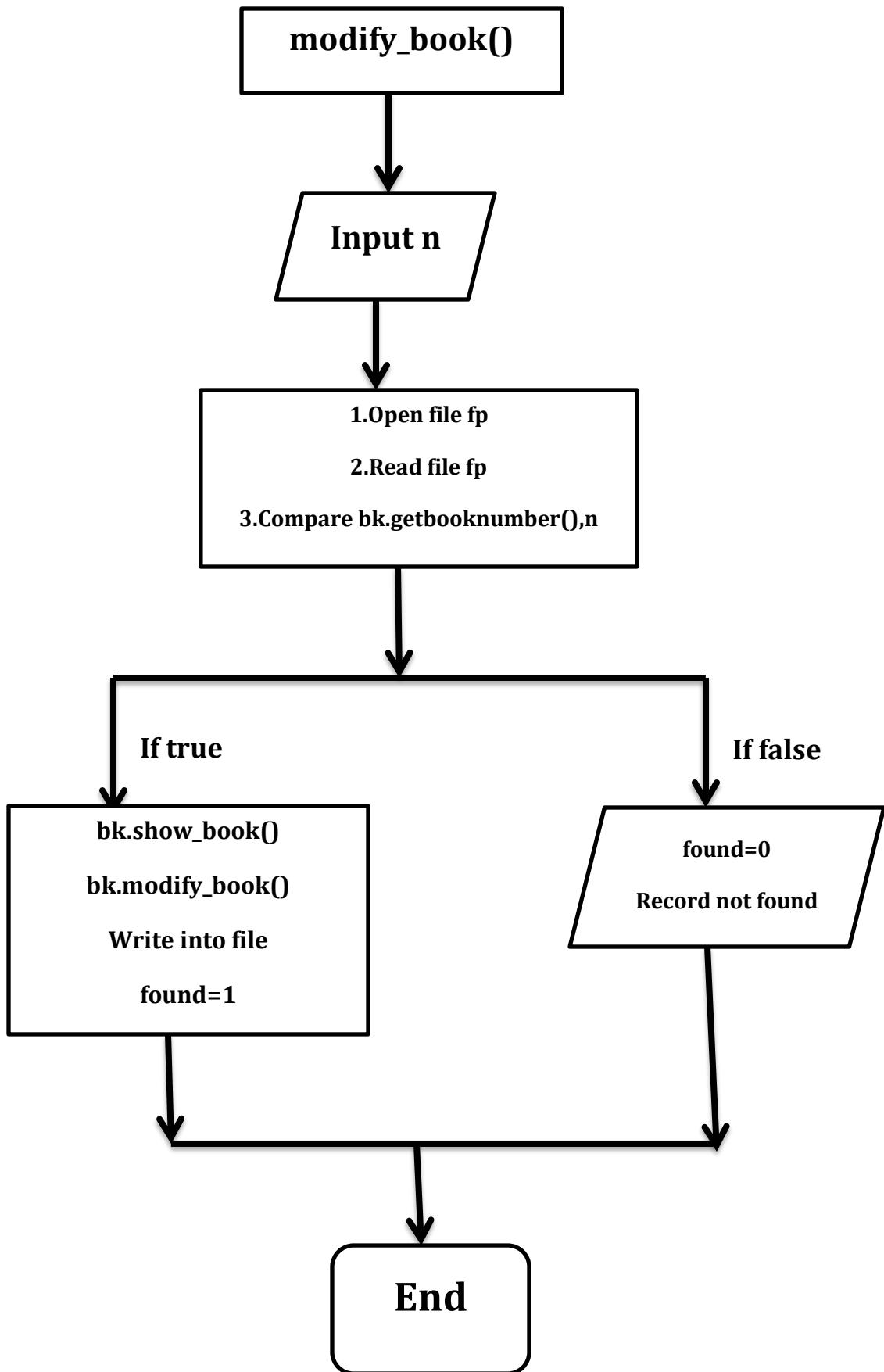


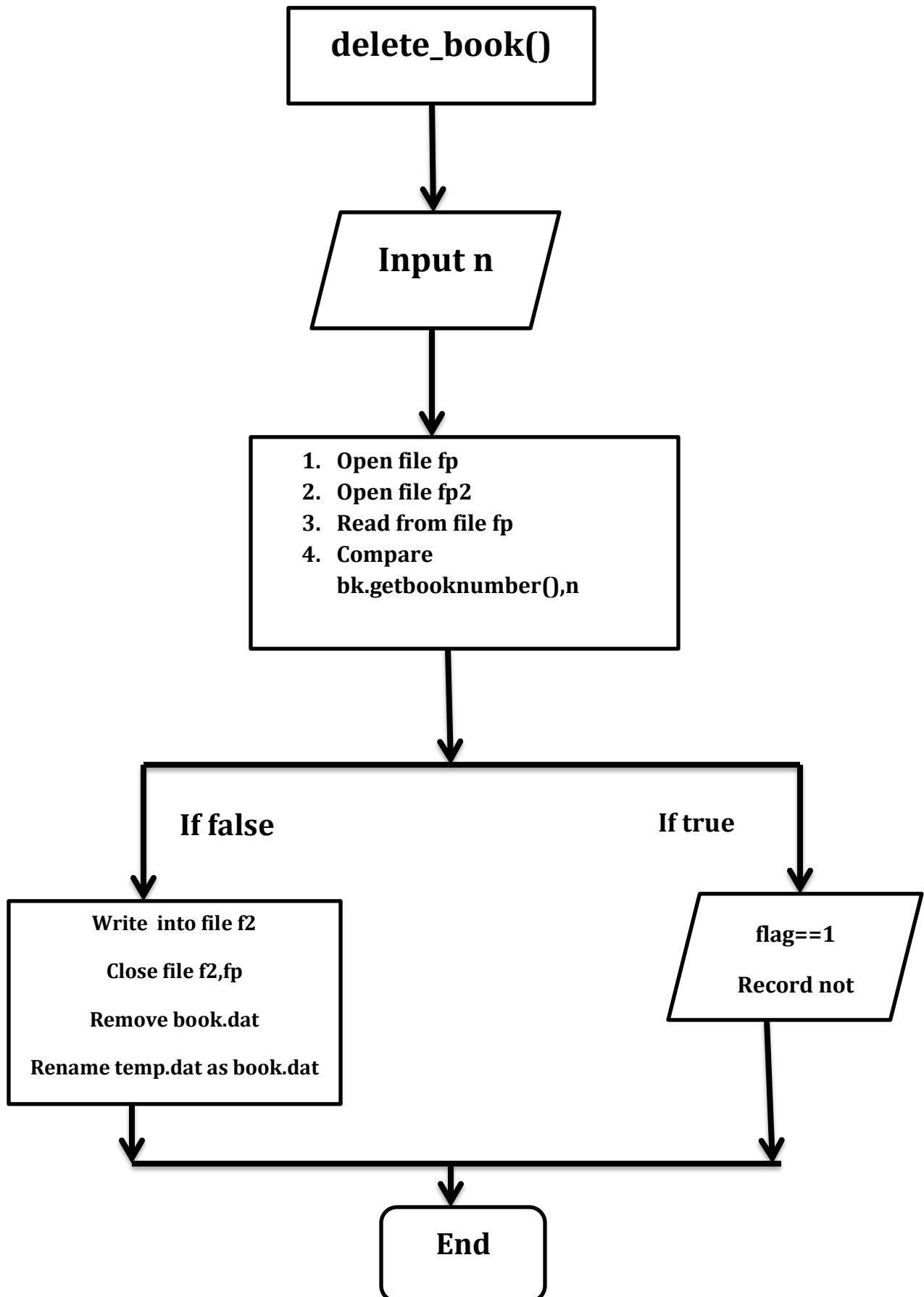


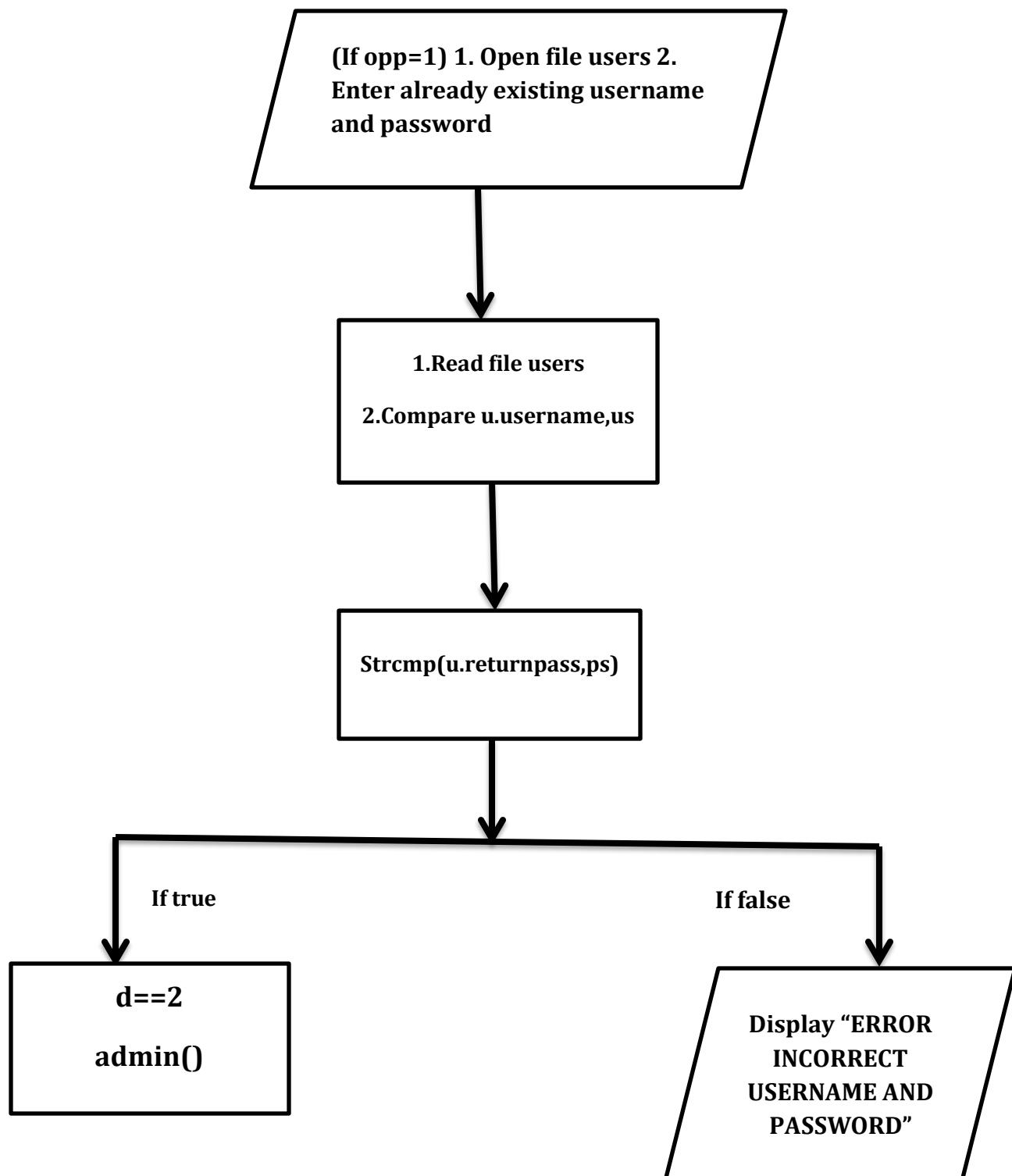


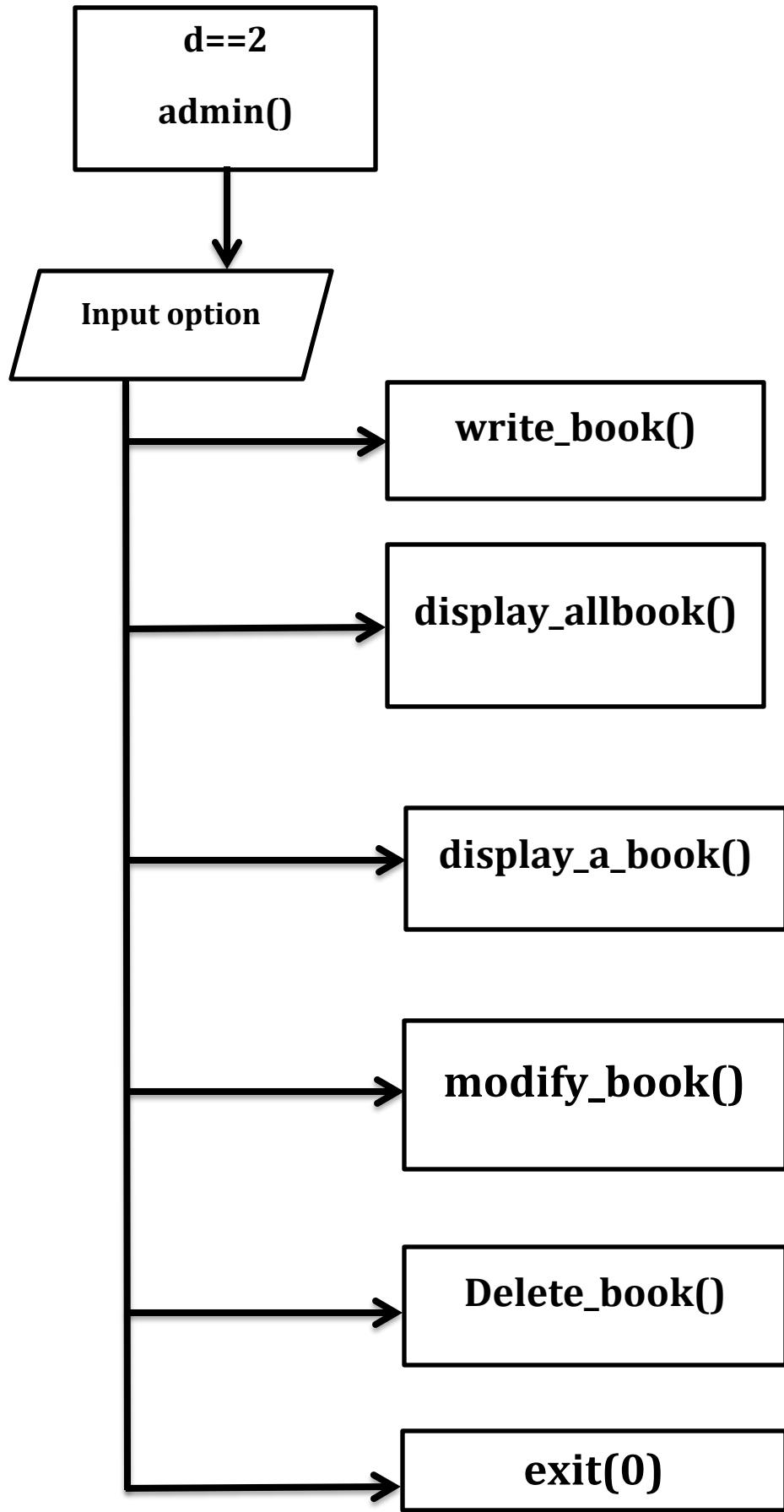


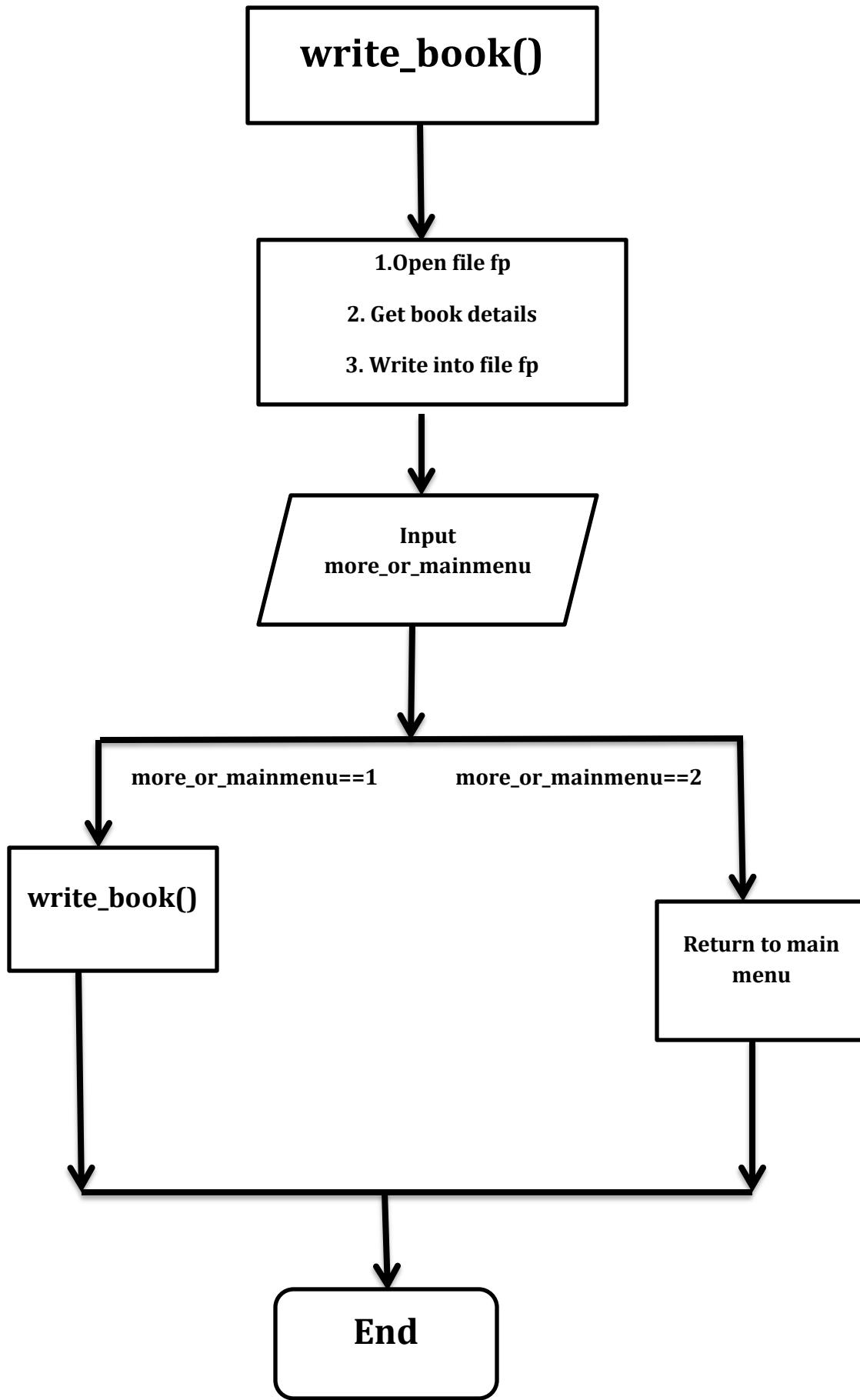


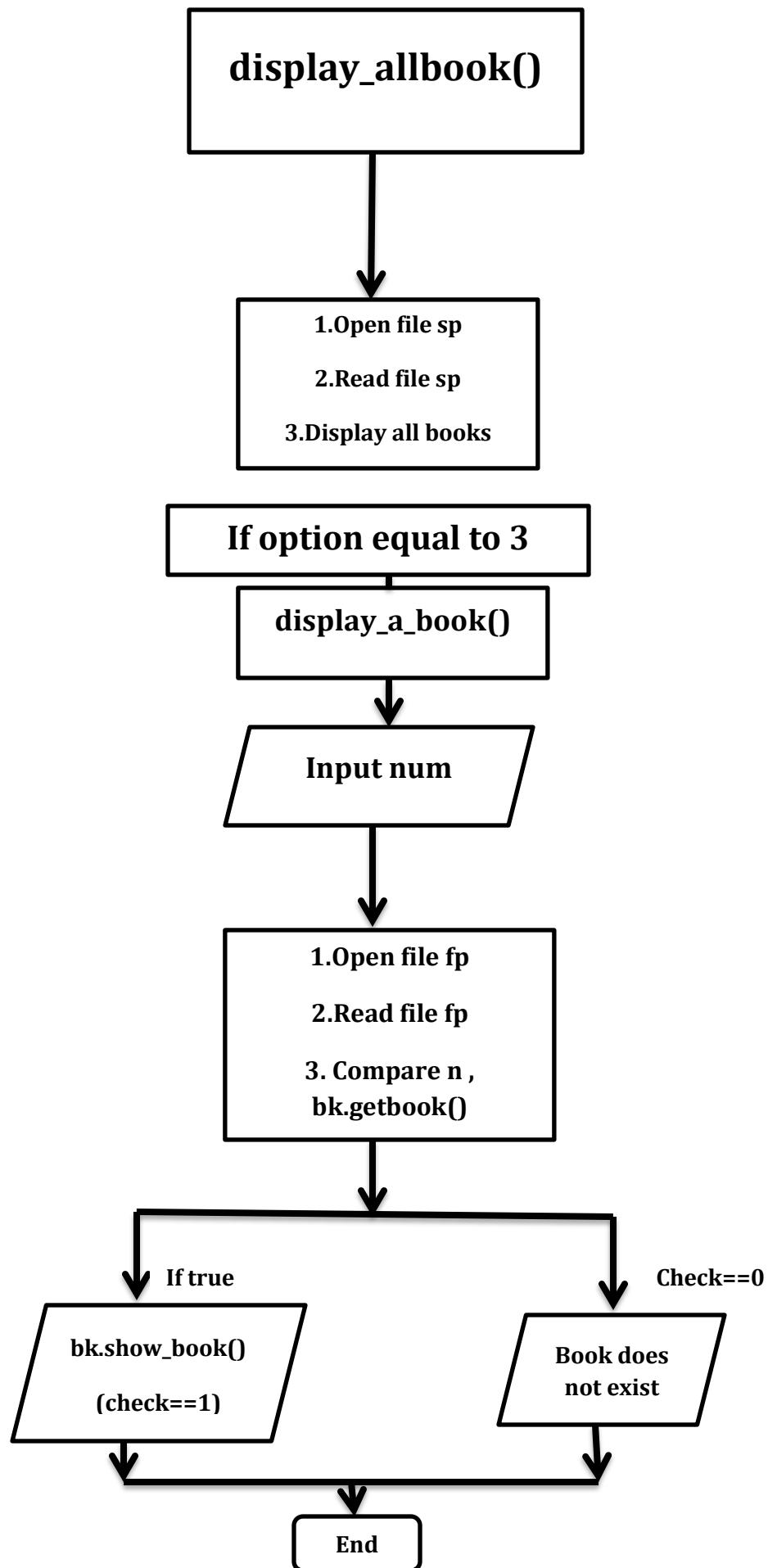


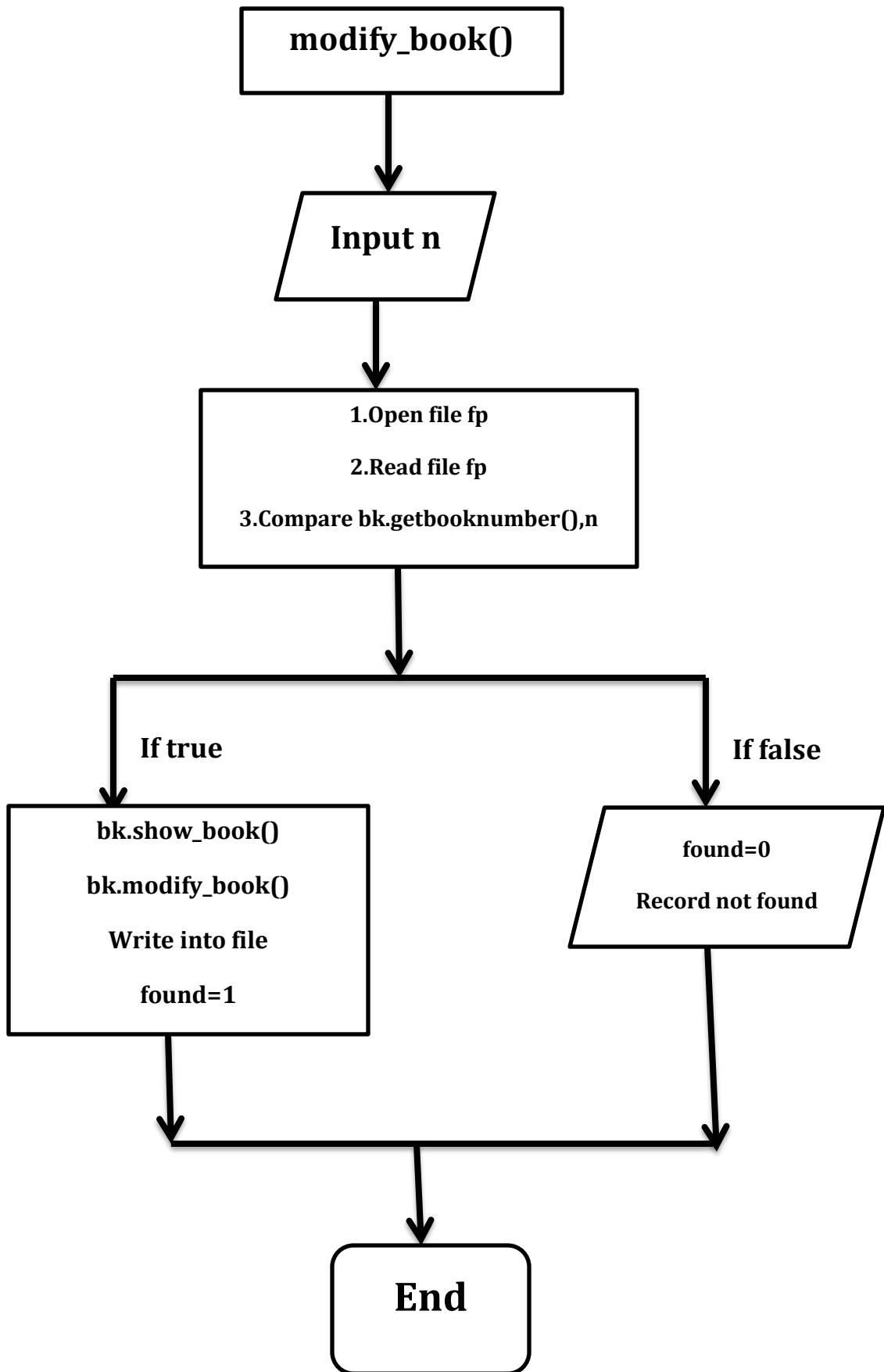


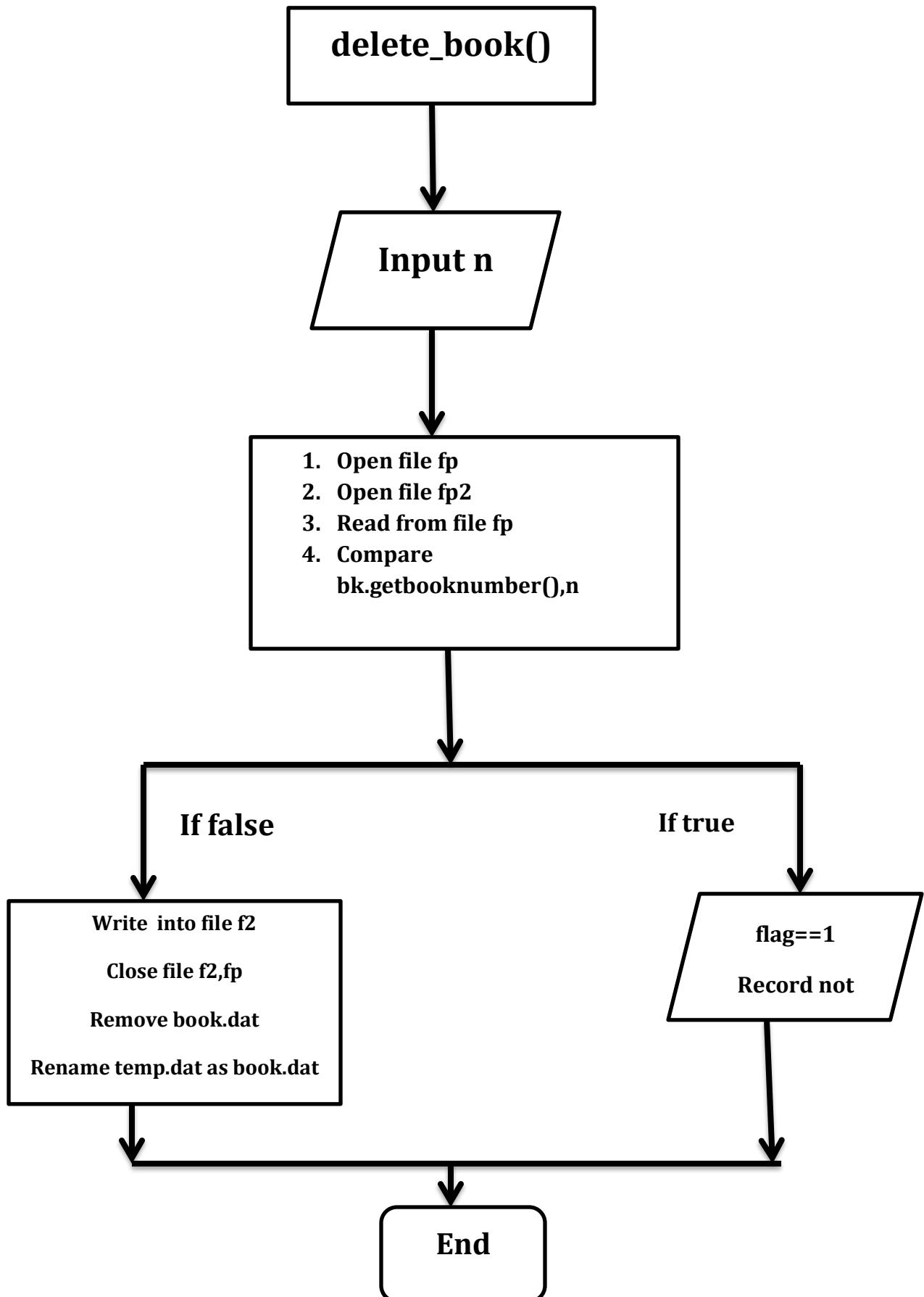












PROGRAM SOURCE CODE

```
#include<fstream.h>
#include<conio.h>
#include<string.h>
#include<iomanip.h>
#include<iostream.h>
#include<stdio.h>
#include<stdlib.h>

class user
{
char username[30];
char password[10];
public:
void get_username()
{cout<<"\nEnter username: ";
gets(username);
cout<<"\nEnter password: ";
gets(password);
}
char* returnpass()
{return password;}
char*returnname()
```

```
{return username;}\n};\nclass book\n{char book_number[30];\nchar book_name[50];\nchar author_name[20];\nint num_copies;\npublic:\nvoid get_book_details()\n{cout<<"\nEnter DETAILS ABOUT BOOK \n";\ncout<<"\nEnter The Book Number: ";\ngets(book_number);\ncout<<"\nEnter The Name of The Book: ";\ngets(book_name);\ncout<<"\nEnter The Author's Name: ";\ngets(author_name);\ncout<<"\nEnter No. Of Copies : ";\ncin>>num_copies;\n}\nvoid show_book()\n{cout<<"\nBook Number: ";\nputs(book_number);
```

```
cout<<"\nBook Name: ";
puts(book_name);
cout<<"\nAuthor's Name: ";
puts(author_name);
cout<<"\nCOPIES : "<<num_copies;
}

void modify_book()
{cout<<"\nBOOK NUMBER OF THE BOOK TO BE MODIFIED ";
cin>>book_number;
cout<<"\nModify Book Name : ";
gets(book_name);
cout<<"\nModify Author's Name: ";
gets(author_name);
cout<<"\nEnter No. Of Copies : ";
cin>>num_copies;

}

char* getbooknumber()
{
return book_number;
}

void report()
{
```

```
cout<<book_number<<setw(25)<<book_name<<setw(15)<<a
uthor_name<<setw(25)<<num_copies<<endl;

}

};

//end of the class

fstream fp; //global declaration of file fp
fstream users;
book bk; //object which along to class book
user u;
void write_book()
{
cout<<"\n||||||||||||||||||||||||||||||||||||||||";
cout<<"\nFUNCTION TO ADD BOOKS";
cout<<"\n||||||||||||||||||||||||||||||||||||||||";
||||||||||";

int more_or_mainmenu;
fp.open("book.dat",ios::out|ios::app|ios::binary);
do
{
    bk.get_book_details();
}
```

```
    fp.write((char*)&bk,sizeof(book));
    cout<<"\nPress 1 to add more books.";
    cout<<"\nPress 2 to return to main menu.\n";
    cout<<"Enter: ";
    cin>>more_or_mainmenu;
}while(more_or_mainmenu == 1);
fp.close();
}
```

```
void display_a_book(char n[])
{
    cout<<"\nBOOK DETAILS\n";
    int check=0;
    fp.open("book.dat",ios::in);
    while(fp.read((char*)&bk,sizeof(book)))
    {
        if(strcmpi(bk.getbooknumber(),n)==0)
        {
            bk.show_book();
            check=1;
        }
    }
}
```

```

fp.close();
if(check==0)
cout<<"\n\nBook does not exist";
getch();
}

void modify_book()
{
    char n[20];
    int found=0;
    cout<<"\n\n\tMODIFY BOOK";
    cout<<"\n\n\tEnter The book number: ";
    cin>>n;
    fp.open("book.dat",ios::in|ios::out|ios::binary);
    while(fp.read((char*)&bk,sizeof(book)) && found==0)
    {
        if(strcmpi(bk.getbooknumber(),n)==0)
        {
            bk.show_book();
            cout<<"\nEnter The New Details of
book"<<endl;
            bk.modify_book();
        }
    }
}

```

```

        int pos=-1*sizeof(bk);
        fp.seekp(pos,ios::cur);
        fp.write((char*)&bk,sizeof(book));
        cout<<"\n\n\t Record Updated

Successfully...";

        found=1;
    }

}

fp.close();
if(found==0)
    cout<<"\n\n Record Not Found ";
getch();
}

void delete_book()
{
    char n[20];
    int flag=0;
    cout<<"\n\n\n\tDELETE BOOK";
    cout<<"\n\nEnter The Book's number You Want To
Delete: ";
    cin>>n;
}

```

```
fp.open("book.dat",ios::in|ios::out|ios::binary);
fstream fp2;
fp2.open("Temp.dat",ios::out);
fp.seekg(0,ios::beg);
while(fp.read((char*)&bk,sizeof(book)))
{
    if(strcmpi(bk.getbooknumber(),n)!=0)
    {
        fp2.write((char*)&bk,sizeof(book));
    }
    else
        flag=1;
}
fp2.close();
fp.close();
remove("book.dat");
rename("Temp.dat","book.dat");
if(flag==1)
    cout<<"\n\n\tRecord Deleted ..";
else
    cout<<"\n\nRecord not found";
getch();
}
```

```

void display_allbook()
{
    fp.open("book.dat",ios::in|ios::binary);
    if(!fp)
    {
        cout<<"ERROR!!! FILE NOT FOUND ";
        getch();
        return;
    }
    cout<<"\n\n\tBook LIST\n\n";
    cout<<"=====\n";
    cout<<"| Book Number |"<<setw(10)<<"| Book Name
|"<<setw(15)<<"| Author |"<<setw(30)<<"| Copies |"<<endl;
    cout<<"=====\n";
    while(fp.read((char*)&bk,sizeof(book)))
    {
        bk.report();
    }
    fp.close();
}

```



```
@@@@@@@nEnter your Option: ;  
  
cin>>option;  
switch(option)  
{  
    case 1:system("color B2");  
        write_book();  
        system("cls");  
        break;  
    case 2: system("color D0");  
        display_allbook();  
        system("cls");  
        break;  
    case 3: system("color A3");  
        char num[20];  
        system("cls");  
        cout<<"\n\n\tPlease Enter The book No. ";  
        cin>>num;  
        display_a_book(num);  
        break;  
    case 4: system("color F0");
```

```
        modify_book();
        system("cls");
        break;
    case 5: system("color E5");
        delete_book();
        system("cls");
        break;
    case 6: exit(0);
        break;
    default:cout<<"INVALID OPTION";
}
}
```

```
void passage()
{int d=0;
cout<<"\nNEW USER? ENTER 0";
cout<<"\nOLD USER? ENTER 1";
int opp;
cout<<"\nEnter YOUR OPTION: ";
```

```
cin>>opp;
if(opp==0)
{users.open("u.dat",ios::out|ios::in|ios::binary);
u.get_username();
users.write((char*)&u,sizeof(u));
cout<<"\n****MESSAGE: WELCOME NEW USER****";
cout<<"\nEnter 2 TO CONTINUE: ";
cin>>d;
if(d==2)
admin();
else
cout<<"****WARNING: ERROR";
}
if(opp==1)
{users.open("u.dat",ios::in|ios::out|ios::binary);
char us[30];
char ps[10];
cout<<"\nEnter USERNAME: ";
gets(us);
cout<<"\nEnter PASSWORD: ";
gets(ps);
while(users.read((char*)&u,sizeof(u)))
{
```

```
    if(strcmp(u.returnname(),us)==0)
    {if(strcmp(u.returnpass(),ps)==0)
     admin();
    }

}

if(d!=2)
{cout<<"***ERROR: INCORRECT USERNAME***";}
}

users.close();

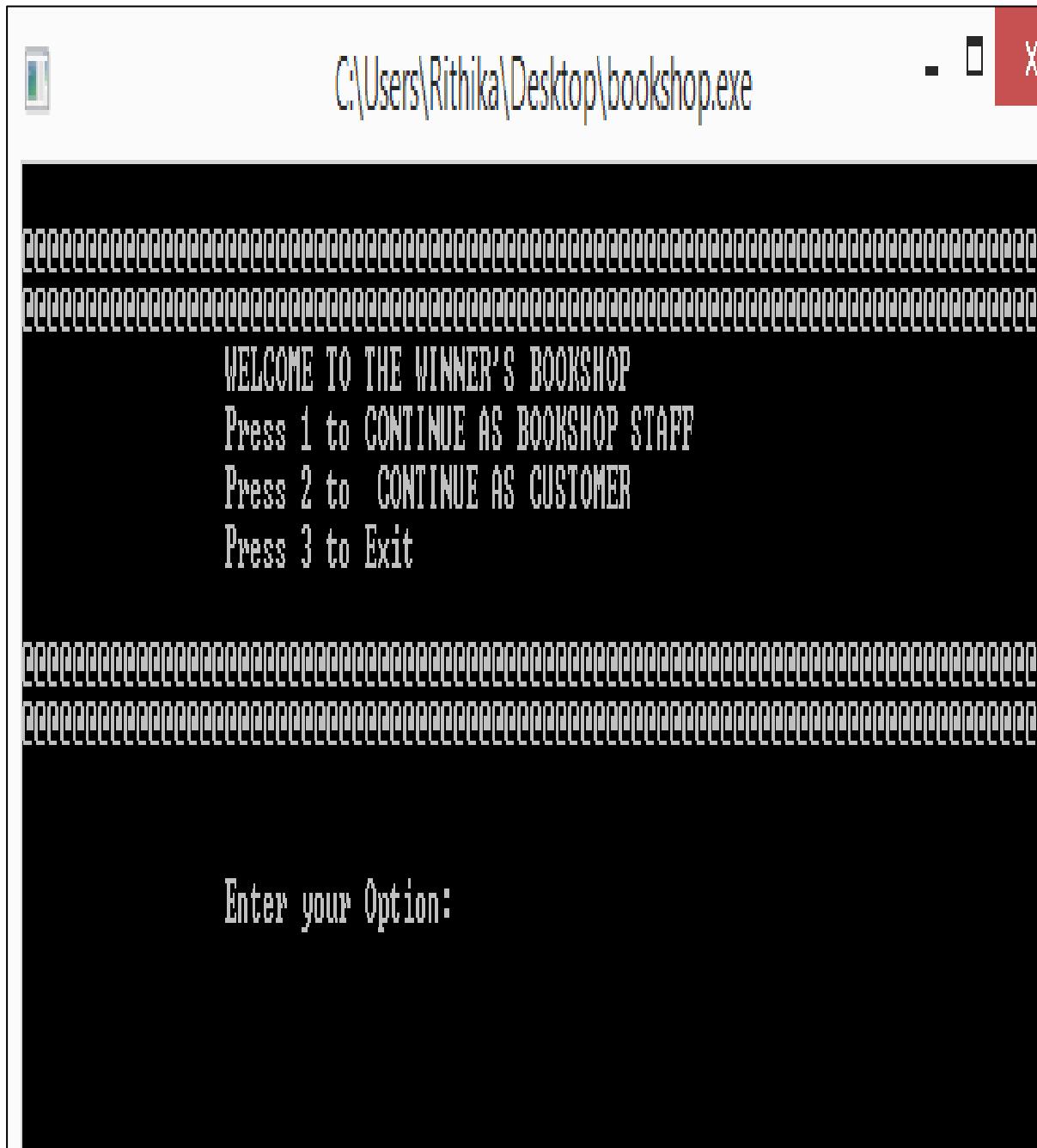
}

void main()
{for(;)
{int op;
 op=0;
 cout<<"\n@@@@@@@@"
```

```
@@@@@@@@";  
cout<<"\t\tWELCOME TO THE WINNER'S  
BOOKSHOP";  
cout<<"\n\t\tPress 1 to CONTINUE AS BOOKSHOP  
STAFF";  
cout<<"\n\t\tPress 2 to CONTINUE AS CUSTOMER";  
cout<<"\n\t\tPress 3 to Exit";  
cout<<"\n\n@@@@@@@@";  
@@@@@@@@";  
@@@@@@@@";  
@@@@@@@@";  
@@@@@@@@";  
@@@@@@@@";  
@@@@@@@@";  
@@@@@@@@";  
cout<<"\n\t\tEnter your Option: ";  
cin>>op;  
if(op==1)  
passage();  
if(op==2)  
{system("color E9");  
cout<<"\n+++++++";  
cout<<"\n+++++++";  
cout<<"\n\t\tWELCOME CUSTOMER TO WINNER'S  
BOOKSHOP";
```

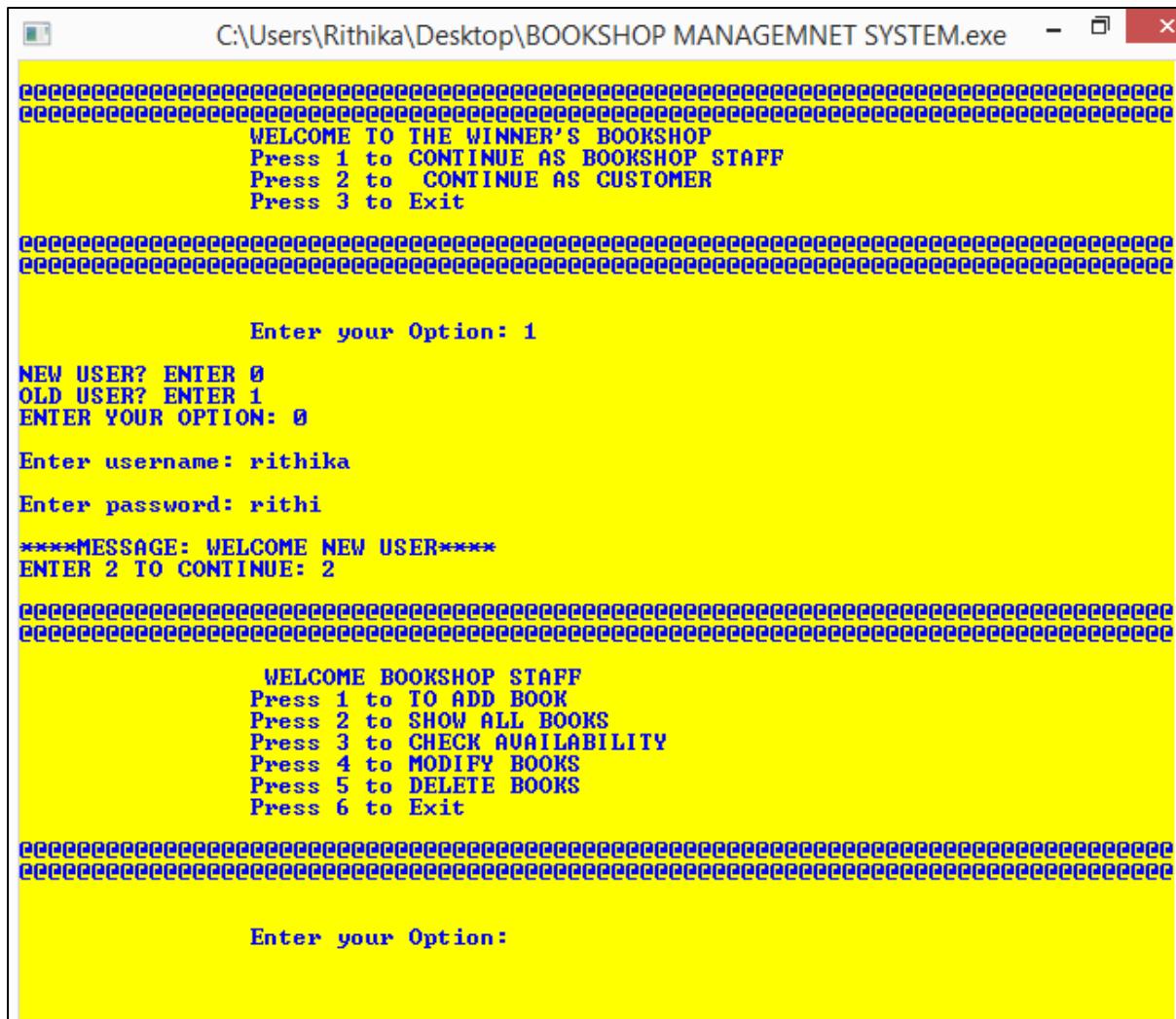

OUTPUT

1. WELCOME SCREEN:



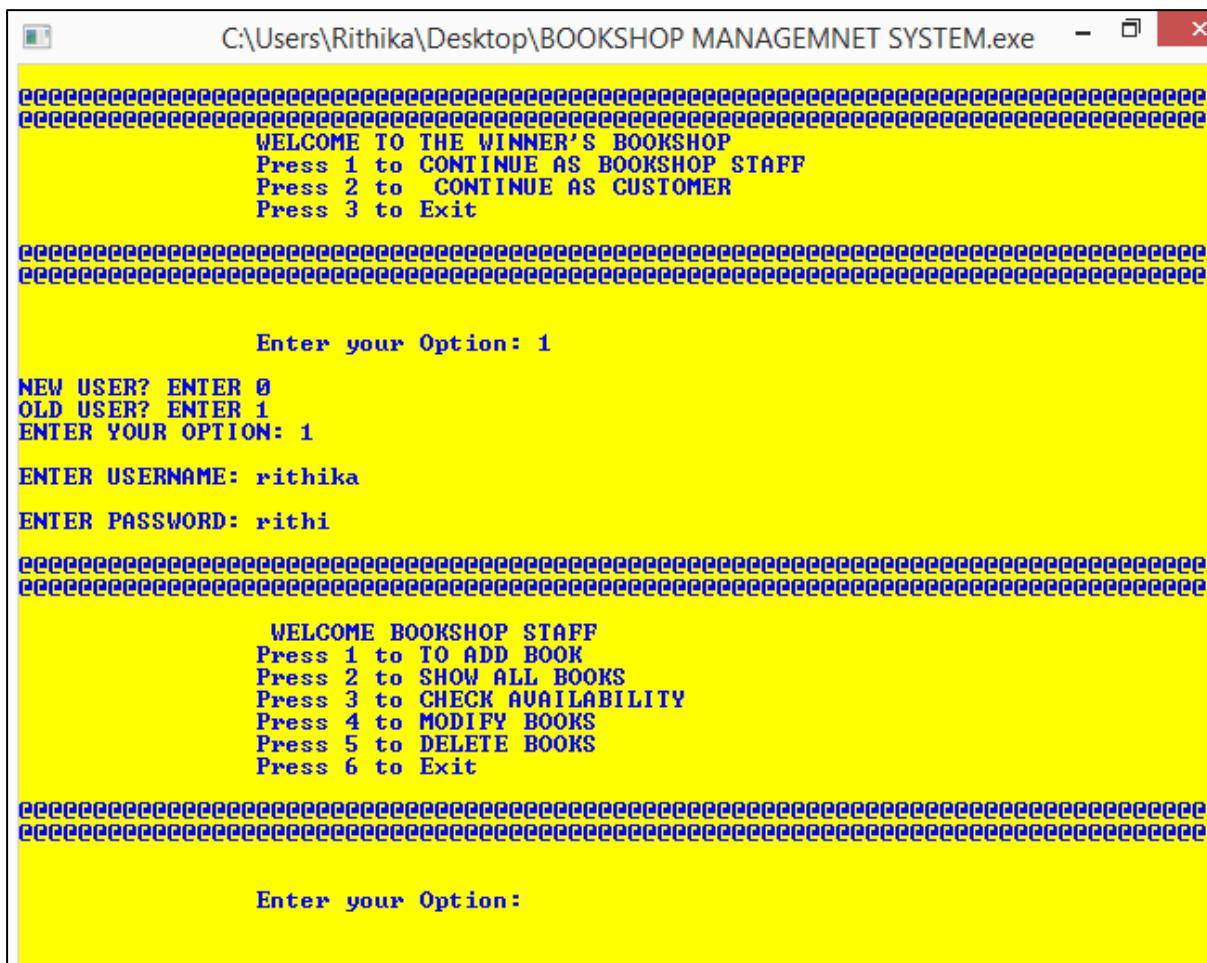
2. SIGN IN AS BOOKSHOP STAFF:

a. NEW USER

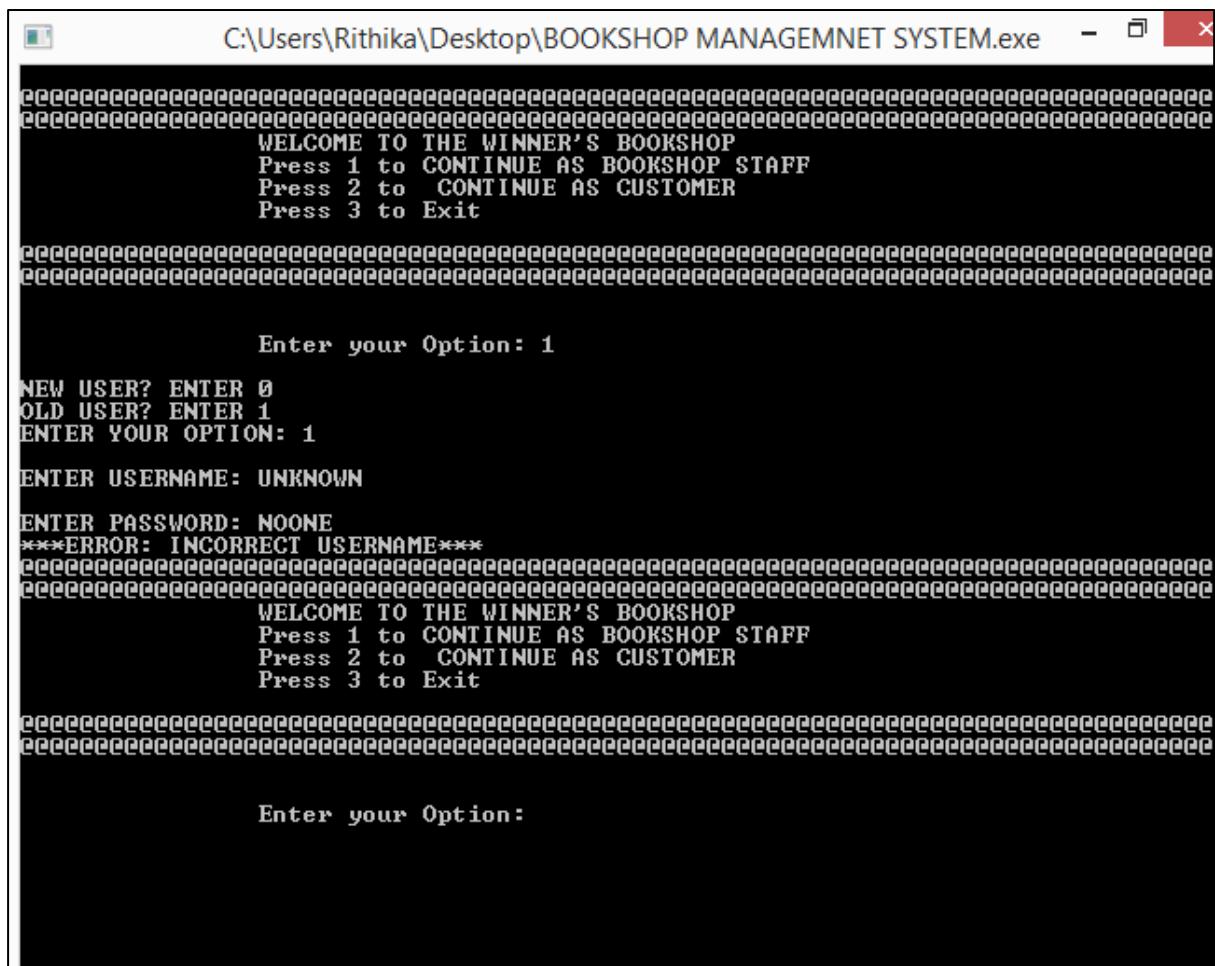


b. OLD USER:

i. WHEN USERNAME AND PASSWORD IS CORRECT:



ii. WHEN USERNAME AND PASSWORD IS INCORRECT:



2. FUNCTION TO ADD BOOK:

The screenshot shows a terminal window with the following text output:

```
C:\Users\Rithika\Desktop\BOOKSHOP MANAGEMNET SYSTEM.exe - & X

WELCOME BOOKSHOP STAFF
Press 1 to TO ADD BOOK
Press 2 to SHOW ALL BOOKS
Press 3 to CHECK AVAILABILITY
Press 4 to MODIFY BOOKS
Press 5 to DELETE BOOKS
Press 6 to Exit

Enter your Option: 1

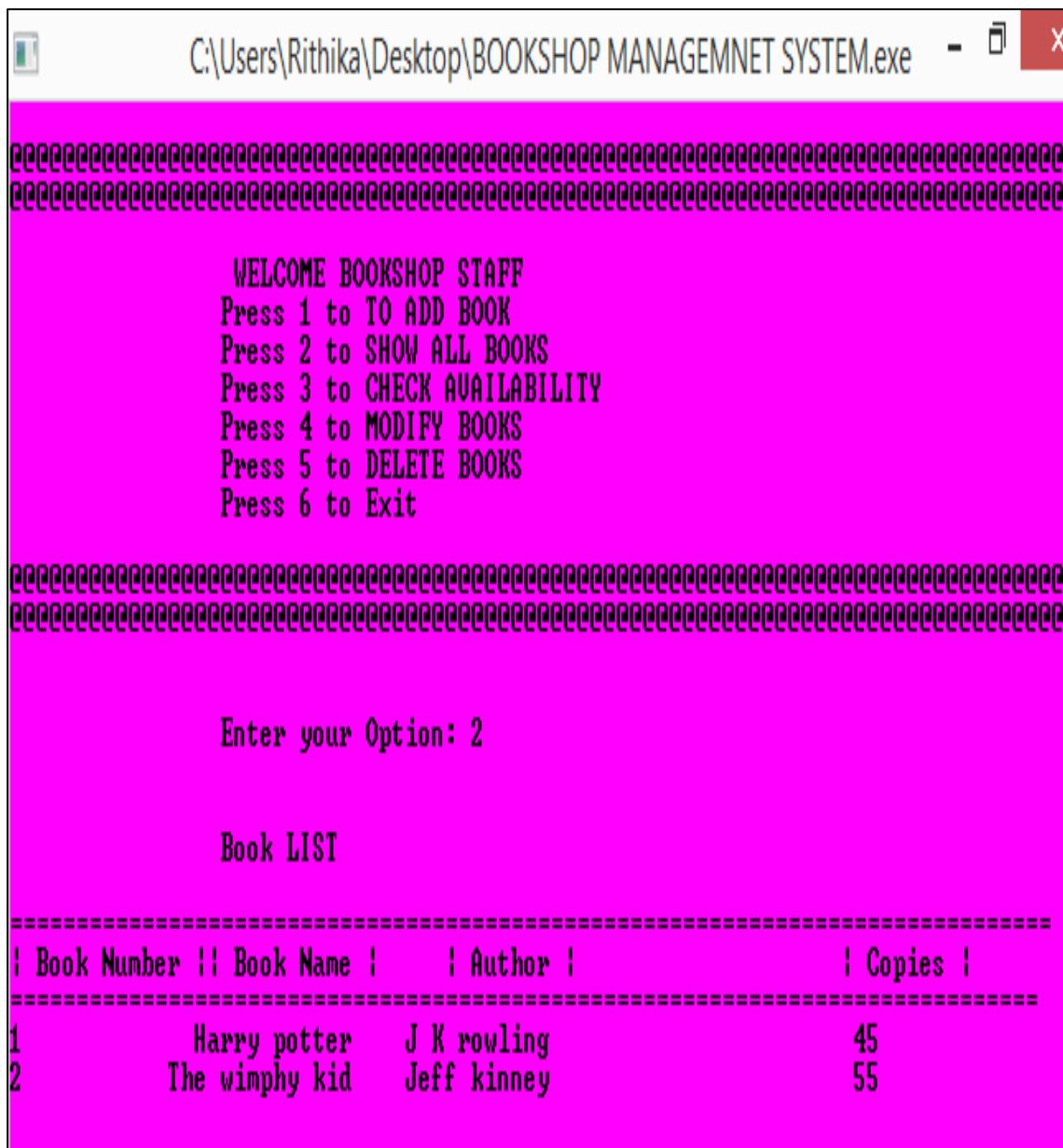
FUNCTION TO ADD BOOKS
ENTER DETAILS ABOUT BOOK

Enter The Book Number: 1
Enter The Name of The Book: Harry potter
Enter The Author's Name: J K rowling
Enter No. Of Copies : 45
Press 1 to add more books.
Press 2 to return to main menu.
Enter: 1

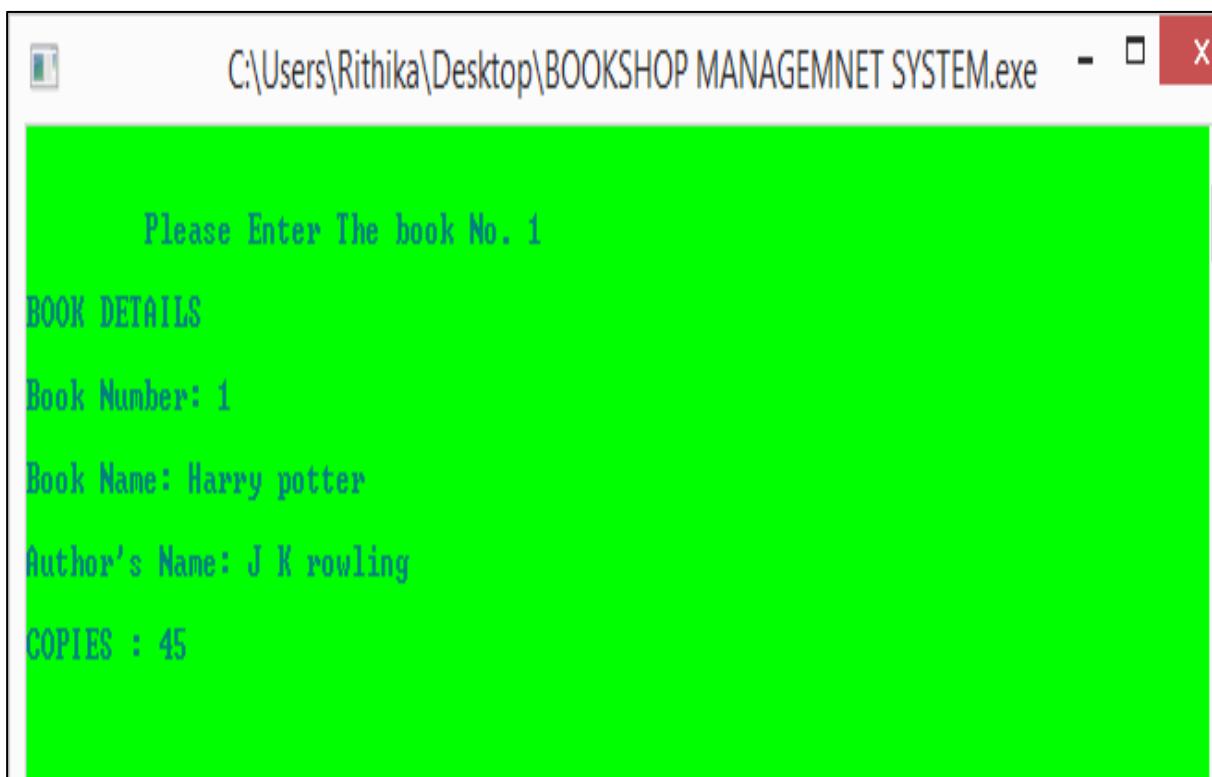
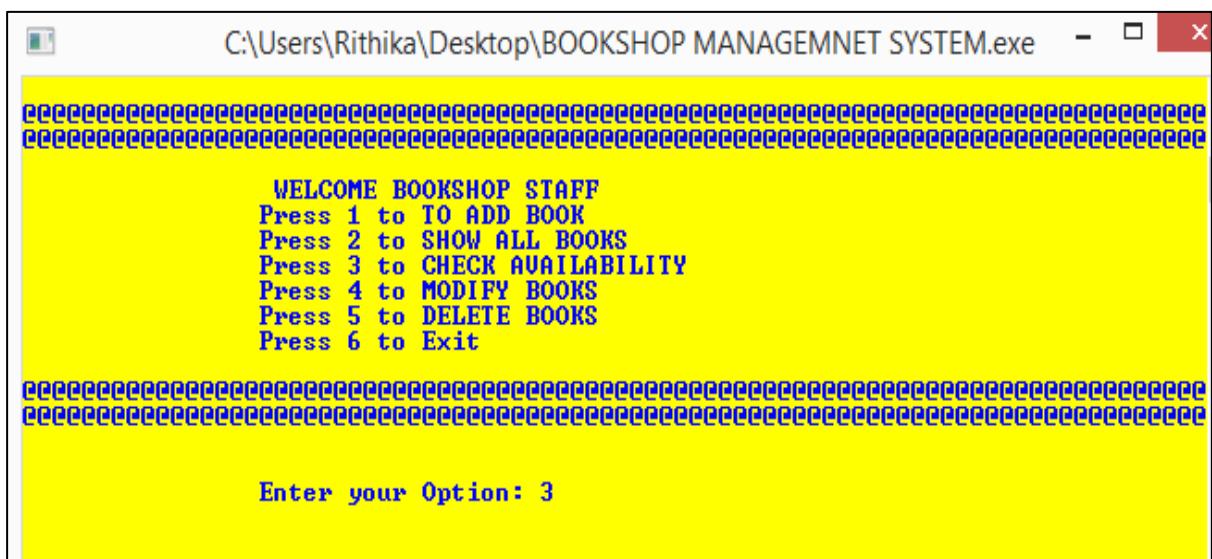
ENTER DETAILS ABOUT BOOK

Enter The Book Number: 2
Enter The Name of The Book: The wimphy kid
Enter The Author's Name: Jeff kinney
Enter No. Of Copies : 55
Press 1 to add more books.
Press 2 to return to main menu.
Enter: 2
```

3. FUNCTION TO SHOW ALL BOOKS:



4. TO CHECK BOOK AVAILABILITY:



5. TO MODIFY BOOK RECORD:

The screenshot shows a Windows application window titled "C:\Users\Rithika\Desktop\BOOKSHOP MANAGEMNET SYSTEM.exe".

Login Screen:

- Welcome message: "WELCOME TO THE WINNER'S BOOKSHOP"
- Options:
 - Press 1 to CONTINUE AS BOOKSHOP STAFF
 - Press 2 to CONTINUE AS CUSTOMER
 - Press 3 to Exit

Input: "Enter your Option: 1"

Output:
NEW USER? ENTER 0
OLD USER? ENTER 1
ENTER YOUR OPTION: 1

Input: "ENTER USERNAME: rithi"
Input: "ENTER PASSWORD: kathir"

Staff Menu:

- Welcome message: "WELCOME BOOKSHOP STAFF"
- Options:
 - Press 1 to TO ADD BOOK
 - Press 2 to SHOW ALL BOOKS
 - Press 3 to CHECK AVAILABILITY
 - Press 4 to MODIFY BOOKS
 - Press 5 to DELETE BOOKS
 - Press 6 to Exit

Input: "Enter your Option: 4"

C:\Users\Rithika\Desktop\BOOKSHOP MANAGEMNET SYSTEM.exe -

MODIFY BOOK

Enter The book number: 2

Book Number: 2

Book Name: The wimphy kid

Author's Name: Jeff kinney

COPIES : 55

Enter The New Details of book

BOOK NUMBER OF THE BOOK TO BE MODIFIED 2

Modify Book Name : wimphy kid

Modify Author's Name: Jeff kenney

Enter No. Of Copies : 75

Record Updated Successfully...

6. DELETE BOOK:

```
C:\Users\Rithika\Desktop\BOOKSHOP MANAGEMNET SYSTEM.exe - □ ×  
WELCOME TO THE WINNER'S BOOKSHOP  
Press 1 to CONTINUE AS BOOKSHOP STAFF  
Press 2 to CONTINUE AS CUSTOMER  
Press 3 to Exit  
Enter your Option: 1  
NEW USER? ENTER 0  
OLD USER? ENTER 1  
ENTER YOUR OPTION: 1  
ENTER USERNAME: rithi  
ENTER PASSWORD: kathir  
WELCOME BOOKSHOP STAFF  
Press 1 to TO ADD BOOK  
Press 2 to SHOW ALL BOOKS  
Press 3 to CHECK AVAILABILITY  
Press 4 to MODIFY BOOKS  
Press 5 to DELETE BOOKS  
Press 6 to Exit  
Enter your Option: 5  
DELETE BOOK  
Enter The Book's number You Want To Delete: 2  
Record Deleted ..
```

```
C:\Users\Rithika\Desktop\BOOKSHOP MANAGEMNET SYSTEM.exe - □ ×
oooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo
oooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo
WELCOME TO THE WINNER'S BOOKSHOP
Press 1 to CONTINUE AS BOOKSHOP STAFF
Press 2 to CONTINUE AS CUSTOMER
Press 3 to Exit
oooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo
oooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo

Enter your Option: 1

NEW USER? ENTER 0
OLD USER? ENTER 1
ENTER YOUR OPTION: 1

ENTER USERNAME: rithi

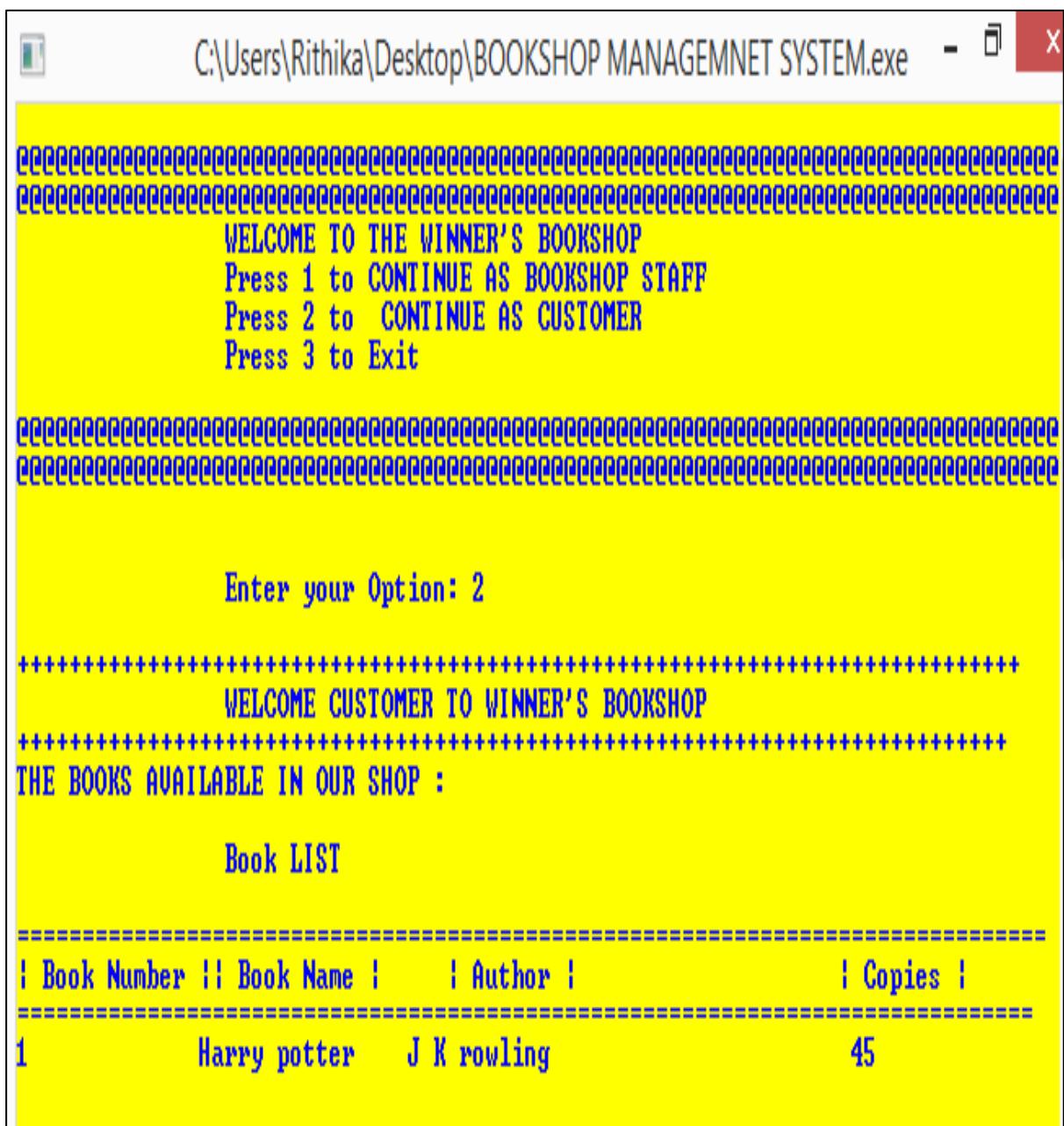
ENTER PASSWORD: kathir
oooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo
oooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo

WELCOME BOOKSHOP STAFF
Press 1 to TO ADD BOOK
Press 2 to SHOW ALL BOOKS
Press 3 to CHECK AVAILABILITY
Press 4 to MODIFY BOOKS
Press 5 to DELETE BOOKS
Press 6 to Exit
oooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo

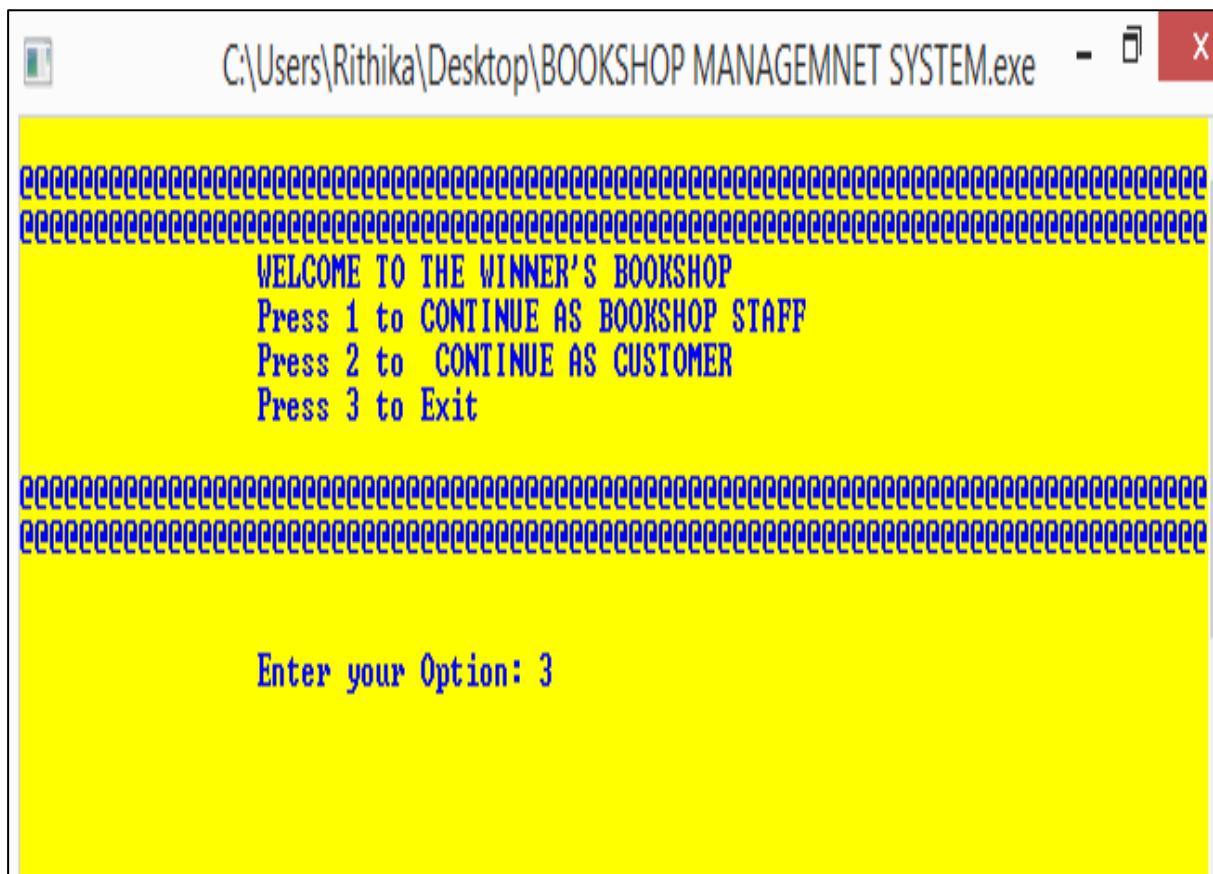
Enter your Option: 2

Book LIST
=====
| Book Number | Book Name | Author | Copies |
=====
1          Harry potter   J K rowling      45
```

7. CUSTOMER :



8. EXIT :



BIBLIOGRAPHY

- Computer Science with C++ by Sumita Arora
- Codewithc++.com
- GeeksforgeeksC++.com