BOOK STORE MANAGEMENT

COMPUTER SCIENCE
PROJECT

DONE BY:

S.RAMACHANDRAN (XII-A7 - 28)
SRINIKETH BALACHANDAR (XII-A7 -34)
MRIGEESH ASHWIN (XII-A7 - 22)
ARYA A (XII-A7 - 06)

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PROBLEM DEFINITION

The user should signup an account which they can access whenever they want. The user can login using the signed up username and password. If the user enters an invalid password or invalid username, they are intimated and redirected to the login page. If the user logs in successfully, they can choose various options regarding book store

We have created a Python code to add books to their library and they can read or sell them whenever they want.

As mentioned earlier, they can sell books that are available. We have coded a Python program to sell books by the user to a customer. In case the user tries to sell books that are not available, they are notified with a comment conveying the unavailability of books.

We have created a Python code so that the user can search books that they wish to read or sell. When the list of books that are available is long, it is tough for the user to search the desired book. That is the advantage of the search book option.

The user can also maintain the record of books that are sold by them and reset the sell history whenever they want to.

We have created a Python code so that the user can maintain a record of the staff working. They can ADD new staff and REMOVE existing staff with the help of the python code. If they want to see the details of the existing staff, it is also possible through the code created for it.

Finally, the user can Log Out from his account before exiting the menu.

This program has a lot of advantages over manual records maintained. It improves Efficiency of working and saves time compared to performing the same functions manually.

PROBLEM ANALYSIS

SIGNUP AND LOGIN:

On execution of the program, the signup/login screen appears to the user. The user can either Signup a new account or Login into an existing account. When the user wants to SignUp, they have to type a valid username and password for their account which they can use whenever they want. When the user Log In into their account, they have to type the Username and Password. If the username is invalid or the password entered is either invalid or does not match with the username, the user gets an error message saying "INVALID USERNAME" and "INVALID PASSWORD" in the respective cases. If the entered Username and Password is Valid, the user gets a message "LOGIN SUCCESSFUL" and list of functions that can be done appears in the screen. The user can choose any of the following options.

ADD BOOKS:

If the user choose the add book option, a screen appears which asks the user to enter some information that is mandatory. The mandatory information includes the Book Name, Book Genre, Book Author, Quantity of Book, Book Publication and the Price of the book. After the user enters all the mandatory information, the book is added to available books if the book does not exist already and if the book already exists, the quantity of book is increased.

USER DEFINED FUNCTIONS USED IN ADD BOOKS:

add()

SELL BOOKS:

If the user chooses the Sell book option, the user can sell the book which they own to the customer. Before asking for Customer details, the available books are printed so that the user can type the information of the book correctly without any error. The user has to type the information of the customer which includes Customer name, Customer Phone Number, Book name, Quantity of book to be sold and Price at which the book is sold. If the typed Book name is not owned by the user or the quantity of book owned by the user is less than the quantity of books to be sold, an error

message saying "BOOKS ARE NOT AVAILABLE!!" appears. If the books are available, the book is sold and the information is stored in SellRec.

USER DEFINED FUNCTIONS IN SELL BOOKS:

sell()

SEARCH BOOKS:

If the user chooses the Search books option, they can search books based on the following options:

- 1. By Book name
- 2. By Book genre
- 3. By Book author

If the user chooses by book name option, the function bybookname() is called. The user needs to type in the Book Name that is to be searched. If such book exists, the book details are printed in the screen. Else the message "Books are not available" is printed.

If the user chooses by book genre option, the function bygenre() is called. The user needs to type the genre of the book that is to be searched. If such book exists, the book details are printed in the screen. Else the message "Books are not available" is printed.

If the user chooses by book author option, the function byauthor() is called. The user needs to type the author name of the book that is to be searched. If such book exists, the book details are printed in the screen. Else the message "Books are not available" is printed

USER DEFINED FUNCTIONS USED IN SEARCH BOOKS:

- search()
- bygenre()
- bybookname()
- byauthor()

STAFF DETAILS:

If the user chooses the staff details option, they can add new staff or remove existing staff. If the user wants to add new staff, the newstaff() function is called. The user has to enter the Staff information which includes Staff name, Gender, Staff Age, Staff Phone number and Staff address. After the user types all the required information, the staff details are added to Staff_Details Table where the staff details are maintained. If the user wants to remove an existing staff, the removestaff() function is called. First the Existing staff details is printed on screen with the help of staffinfo() function. The user should type the name of staff to be removed. After the user types the staff name, the staff details are removed from the Staff_Details table and the staff is removed.

USER DEFINED FUNCTIONS IN STAFF DETAILS:

- staffinfo()
- newstaff()
- removestaff()

SELL HISTORY:

If the user chooses the sell history, they can see the sell history after the latest reset and reset the sell history if it is too long. If the user wants to see the Sell history, the sellhist() function is called. The Customer names along with the book sold and price is printed in the screen from the SellRec table. If the user chooses to reset Sell history, the SellRec table is cleared.

USER DEFINED FUNCTIONS IN SELL HISTORY:

sellhist()

TOTAL INCOME:

If the user chooses the total income, the totinc() function is called. It shows the total salary of the user after the latest reset. It sums the value of quantity*price every time books are sold.

USER DEFINED FUNCTIONS IN TOTAL INCOME:

totinc()

AVAILABLE BOOKS:

If the user chooses the Available books option, the avlbooks() function is called. The list of all books available with the user for reading and selling is printed in the screen.

REQUIREMENTS

HARDWARE REQUIREMENTS:

- Processors such as Intel Atom processor or Intel Core i3 processor are required to build this project.
- Minimum of 4GB RAM is required.
- 5 GB Free disk space is required.
- Monitor of 15 inches is required.
- Keyboard of 122 keys is required.

SOFTWARE REQUIREMENTS:

- Operating System: Windows 7 or later, macOS and Linux can be used for this project.
- Python versions 2.7X or 3.6X or 3.8X can be used for this project.
- MySQL

FUTURE ENHANCEMENTS:

- The Project can be further developed by generating more functions that the user can access regarding to his book store.
- More functions like Read Books and more can be added to make the user feel even more satisfied with the program.

SOURCE CODE:

```
import mysql.connector
mydb=mysql.connector.connect (host="localhost", user="root",
password="$Mrigeesh123")
#CREATING DATABASE AND TABLE
mycursor=mydb.cursor()
mycursor.execute("create database if not exists store")
mycursor.execute("use store")
mycursor.execute("create table if not exists signup(username
varchar(20),password varchar(20))")
mycursor.execute("create table if not exists Available_Books(BookName
varchar(30) primary key, Genre varchar(20), Quantity int, Author
varchar(20), Publication varchar(30), Price int(4))")
mycursor.execute("create table if not exists Sell_rec(CustomerName
varchar(20), Phone Number char(10) unique key, Book Name
varchar(30), Quantity int, Price int , foreign key (BookName) references
Available_Books(BookName))")
mycursor.execute("create table if not exists Staff_details(Name varchar(30),
Gender varchar(10), Age int(3), PhoneNumber char(10) unique key,
Address varchar(40))")
def add():
  print("All information prompted are mandatory to be filled")
  book=str(input("Enter Book Name:"))
  genre=str(input("Genre:"))
   quantity=int(input("Enter quantity:"))
   author=str(input("Enter author name:"))
  publication=str(input("Enter publication house:"))
   price=int(input("Enter the price:"))
```

```
mycursor.execute("select * from Available_Books where
bookname=""+book+""")
  row=mycursor.fetchone()
  if row is not None:
    mycursor.execute("update Available_Books set
quantity=quantity+""+str(quantity)+"" where bookname=""+book+""")
    mvdb.commit()
    else:
    mycursor.execute("insert into
Available Books(bookname, genre, quantity, author, publication, price)
values(""+book+"",""+genre+"",""+int(quantity)+"",""+author+"",""+publication
+"",""+int(price)+"")")
    mydb.commit()
    def sell():
  print("AVAILABLE BOOKS...\n('book name','genre','number of
copies', 'number of copies', 'author', 'publication house', 'price')")
  mycursor.execute("select * from Available_Books ")
  for x in mycursor:
    print(x)
  cusname=str(input("Enter customer name:"))
  phno=int(input("Enter phone number:"))
  book=str(input("Enter Book Name:"))
  price=int(input("Enter the price:"))
  n=int(input("Enter quantity:"))
  mycursor.execute("select quantity from available_books where
bookname=""+book+""")
```

```
lk=mycursor.fetchone()
  if max(lk)<n:
    print(n,"Books are not available!!!!")
  else:
    mycursor.execute("select bookname from available_books where
bookname=""+book+""")
    log=mycursor.fetchone()
    if log is not None:
       mycursor.execute("insert into Sell_rec
values(""+cusname+"",""+str(phno)+"",""+book+"",""+str(n)+"",""+str(price)+"")"
       mycursor.execute("update Available_Books set quantity=quantity-
""+str(n)+"" where BookName=""+book+""")
       mydb.commit()
       else:
       print("BOOK IS NOT AVAILABLE!!!!!!")
def search():
  print("""1:Search by name
2:Search by genre
3:Search by author""")
  l=int(input("Search by?:"))
  if l = = 1:
    bybookname()
  elif I==2:
    bygenre()
  elif I==3:
    byauthor()
```

```
else:
    print("The chosen option is invalid")
  mydb.commit()
def byauthor():
  au=input("Enter author to search:")
  mycursor.execute("select author from available_books where
author=""+au+""")
  home=mycursor.fetchall()
  if home is not None:
    mycursor.execute("select * from available_books where
author=""+au+""")
    for z in mycursor:
      print(z)
  else:
    print("BOOKS OF THIS AUTHOR ARE NOT AVAILABLE!!!!!!")
def bybookname():
  o=input("Enter Book to search:")
  mycursor.execute("select bookname from available_books where
bookname=""+o+""")
  tree=mycursor.fetchall()
  if tree is not None:
    mycursor.execute("select * from available_books where
bookname=""+o+""")
    for a in mycursor:
      print(a)
  else:
```

```
print("BOOK IS NOT IN STOCK!!!!!!")
  mydb.commit()
def bygenre():
  g=input("Enter genre to search:")
  mycursor.execute("select genre from available books where
genre=""+q+""")
  poll=mycursor.fetchall()
  if poll is not None:
     mycursor.execute("select * from available_books where
genre=""+g+""")
     for y in mycursor:
        print(y)
  else:
    print("BOOKS OF SUCH GENRE ARE NOT AVAILABLE!!!!!!!!")
def staffdet():
  print("1:New staff entry")
  print("2:Remove staff")
  print("3:Existing staff details")
  ch=int(input("Enter your choice:"))
  if ch==1:
     newstaff()
  elif ch==2:
     removestaff()
  elif ch==3:
     staffinfo()
def newstaff():
  fname=str(input("Enter Fullname:"))
```

```
gender=str(input("Gender(M/F/O):"))
  age=int(input("Age:"))
  phno=int(input("Staff phone no.:"))
  add=str(input("Address:"))
  mycursor.execute("insert into
Staff_details(name,gender,age,phonenumber,address)
values("+fname+"",""+gender+"",""+str(age)+"",""+str(phno)+"",""+add+"")")
  mydb.commit()
def removestaff():
  nm=str(input("Enter staff name to remove:"))
  mycursor.execute("select name from staff details where
name=""+nm+""")
  toy=mycursor.fetchone()
  if toy is not None:
    mycursor.execute("delete from staff_details where name=""+nm+""")
    IS SUCCESSFULLY
mydb.commit()
  else:
    print("STAFF DOESNOT EXIST!!!!!")
def staffinfo():
  mycursor.execute("select * from Staff_details")
  run=mycursor.fetchone()
  print("('name of staff', 'gender', 'age', 'phone number', 'address')")
  if run is not None:
    print("EXISTING STAFF DETAILS...")
    for t in mycursor:
```

```
print(t)
   else:
      print("NO STAFF EXISTS!!!!!!")
  mydb.commit()
def sellhist():
   print("1:Sell history details")
  print("2:Reset Sell history")
  ty=int(input("Enter your choice:"))
  if ty==1:
     mycursor.execute("select * from sell_rec")
     print("('customer', 'phone number', 'book sold', 'number of copies
sold', 'selling price')")
     for u in mycursor:
         print(u)
   if ty==2:
     bb=input("Are you sure(Y/N):")
     if bb=="Y":
         mycursor.execute("delete from sell_rec")
         mydb.commit()
      elif bb=="N":
         pass
def avlbooks():
  mycursor.execute("select * from available_books order by bookname")
   print("('book name', 'genre', 'number of copies', 'number of
copies', 'author', 'publication house', 'price')")
  for v in mycursor:
      print(v)
def totinc():
```

```
mycursor.execute("select sum(quantity*price) from sell_rec")
  for x in mycursor:
    I=list(x)
    print("THE TOTAL REVENUE IS",int(I[O]))
while True:
  print("1.SignUp\n2.Login")
  ch=int(input("SIGNUP/LOGIN(1,2):"))
#SIGNUP
  if ch==1:
    username=input("USERNAME:")
    pw=input("PASSWORD:")
    mycursor.execute("insert into signup
values(""+username+"",""+pw+"")")
    mydb.commit()
#LOGIN
  elif ch==2:
       username=input("USERNAME:")
       mycursor.execute("select username from signup where
username=""+username+""")
       pot=mycursor.fetchone()
       if pot is not None:
         print("VALID USERNAME!!!!!")
         pw=input("PASSWORD:")
         mycursor.execute("select password from signup where
password=""+pw+""")
         a=mycursor.fetchone()
         if a is not None:
```

```
+++++ MY BOOK STORE
====="")
         while(True):
           print("\n1:Add Books\n2:Sell Books\n3:Search
Books\n4:Staff Details\n5:Sell History\n6:Available Books\n7:Total Income
after the Latest Reset \n8:Logout")
           a=int(input("Enter your choice:"))
           if a = = 1:
             add()
           elif a==2:
             sell()
           elif a==3:
             search()
           elif a==4:
             staffdet()
           elif a==5:
             sellhist()
           elif a==6:
             avlbooks()
           elif a==7:
             totinc()
           elif a==8:
             print("""YOU HAVE LOGGED OUT OF YOUR
ACCOUNT.....COME BACK SOON :-)""")
             break
       else:
```

	\n+++++++++++++++++++++\n++\NCORRECT \n+++++++
else:	
•	rt("+++++++++++++++++\n++INVALID \n++++++++++++++++++)
else:	
break	

OUTPUT

1.SignUp

2.Login

SIGNUP/LOGIN(1,2):1

USERNAME:user

PASSWORD:123

1.SignUp

2.Login
SIGNUP/LOGIN(1,2):2
USERNAME:user
VALID USERNAME!!!!!!
PASSWORD:123
+++++++++++++++++
+++LOGIN SUCCESSFULL+++
++++++++++++++++++
++++++++++++++++++++++++++++++++++++++
++++++++++++++++++++
=======================================
1:Add Books
2:Sell Books
3:Search Books
4:Staff Details
5:Sell History
6:Available Books
7:Total Income after the Latest Reset
8:Logout
Enter your choice:1
All information prompted are mandatory to be filled
Enter Book Name:harry potter
Genre:mystery
Enter quantity:90
Enter author name:jkr

Enter publication house:hogwarts publications
Enter the price:300
++++++++++++++++
++SUCCESSFULLY ADDED++
+++++++++++++++++
1:Add Books
2:Sell Books
3:Search Books
4:Staff Details
5:Sell History
6:Available Books
7:Total Income after the Latest Reset
8:Logout
Enter your choice:1
All information prompted are mandatory to be filled
Enter Book Name:sherlock holmes
Genre:thriller
Enter quantity:70
Enter author name:arthur conan dyle
Enter publication house:xyz publications
Enter the price:480
+++++++++++++++++
++SUCCESSFULLY ADDED++
+++++++++++++++++
1:Add Books
2:Sell Books

3:Search Books 4:Staff Details 5:Sell History 6:Available Books 7:Total Income after the Latest Reset 8:Logout Enter your choice: 1 All information prompted are mandatory to be filled Enter Book Name:geronimo stilton Genre:comedy Enter quantity:75 Enter author name: Elisabetta Dami Enter publication house:Dami publications Enter the price:250 ++++++++++++++++++ ++SUCCESSFULLY ADDED++ ++++++++++++++++++ 1:Add Books 2:Sell Books 3:Search Books 4:Staff Details 5:Sell History 6:Available Books 7:Total Income after the Latest Reset 8:Logout Enter your choice:1

All information prompted are mandatory to be filled

Enter Book Name:malgudi days Genre:drama/comedy Enter quantity:65 Enter author name:rk narayan Enter publication house:rk publications Enter the price:360 +++++++++++++++++++ ++SUCCESSFULLY ADDED++ +++++++++++++++++++ 1:Add Books 2:Sell Books 3:Search Books 4:Staff Details 5:Sell History 6:Available Books 7:Total Income after the Latest Reset 8:Logout Enter your choice:6 (book name,genre,number of copies,number of copies,author,publication house, price) ('geronimo stilton', 'comedy', 75, 'Elisabetta Dami', 'Dami publications ',

('harry potter', 'mystery', 90, 'jkr', 'hogwarts publications', 300) ('malgudi days', 'drama/comedy', 65, 'rk narayan', 'rk publications', 360)

('sherlock holmes', 'thriller', 70, 'arthur conan dyle', 'xyz publications ', 480)

1:Add Books

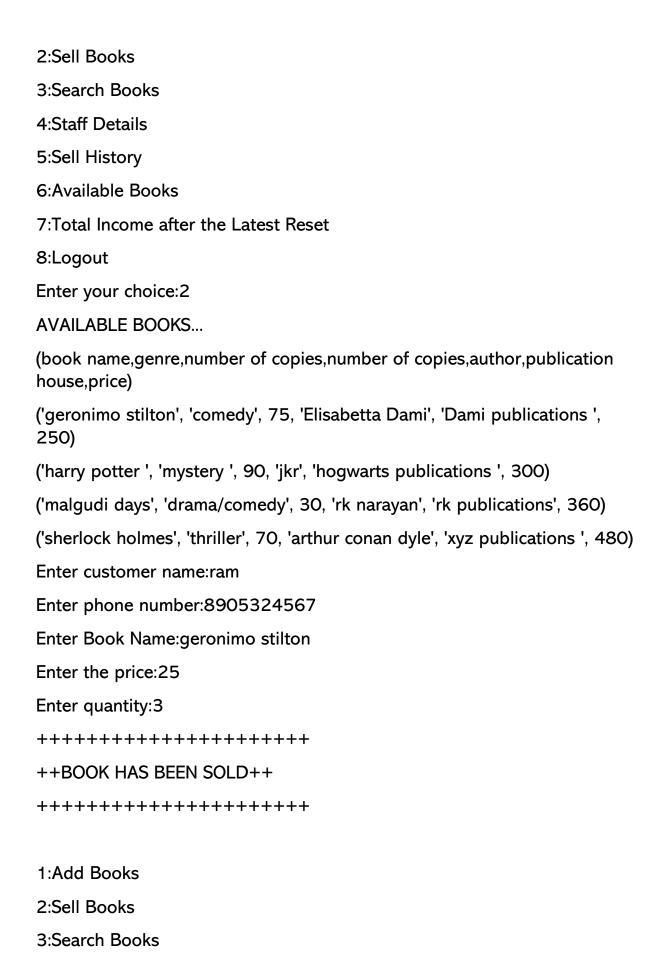
250)

2:Sell Books 3:Search Books 4:Staff Details 5:Sell History 6:Available Books 7:Total Income after the Latest Reset 8:Logout Enter your choice:3 1:Search by name 2:Search by genre 3:Search by author Search by?:1 Enter Book to search:harry potter +++++++++++++++++ ++BOOK IS IN STOCK++ +++++++++++++++++ ('harry potter', 'mystery', 90, 'jkr', 'hogwarts publications', 300) 1:Add Books 2:Sell Books 3:Search Books 4:Staff Details 5:Sell History 6:Available Books 7:Total Income after the Latest Reset 8:Logout Enter your choice:3 1:Search by name

```
2:Search by genre
3:Search by author
Search by?:2
Enter genre to search:comedy
+++++++++++++++++
++BOOK IS IN STOCK++
+++++++++++++++++
('geronimo stilton', 'comedy', 75, 'Elisabetta Dami', 'Dami publications ',
250)
1:Add Books
2:Sell Books
3:Search Books
4:Staff Details
5:Sell History
6:Available Books
7:Total Income after the Latest Reset
8:Logout
Enter your choice:3
1:Search by name
2:Search by genre
3:Search by author
Search by?:3
Enter author to search:rk narayan
+++++++++++++++++
++BOOK IS IN STOCK++
++++++++++++++++
('malgudi days', 'drama/comedy', 65, 'rk narayan', 'rk publications', 360)
```

1:Add Books 2:Sell Books 3:Search Books 4:Staff Details 5:Sell History 6:Available Books 7:Total Income after the Latest Reset 8:Logout Enter your choice:2 **AVAILABLE BOOKS...** (book name,genre,number of copies,number of copies,author,publication house, price) ('geronimo stilton', 'comedy', 75, 'Elisabetta Dami', 'Dami publications', 250) ('harry potter', 'mystery', 90, 'jkr', 'hogwarts publications', 300) ('malgudi days', 'drama/comedy', 65, 'rk narayan', 'rk publications', 360) ('sherlock holmes', 'thriller', 70, 'arthur conan dyle', 'xyz publications', 480) Enter customer name:srini Enter phone number:9876543210 Enter Book Name:malgudi days Enter the price:400 Enter quantity:35 +++++++++++++++++++ ++BOOK HAS BEEN SOLD++ +++++++++++++++++++

1:Add Books



4:Staff Details
5:Sell History
6:Available Books
7:Total Income after the Latest Reset
8:Logout
Enter your choice:4
1:New staff entry
2:Remove staff
3:Existing staff details
Enter your choice:1
Enter Fullname:arya
Gender(M/F/O):M
Age:24
Staff phone no.:9863467801
Address:nehru nagar
+++++++++++++++++++++++++++++++++++++++
+STAFF IS SUCCESSFULLY ADDED+
+++++++++++++++++++++++++++++++++++++++
1:Add Books
2:Sell Books
3:Search Books
4:Staff Details
5:Sell History
6:Available Books
7:Total Income after the Latest Reset
8:Logout
Enter your choice:4

1:New staff entry
2:Remove staff
3:Existing staff details
Enter your choice:1
Enter Fullname:mrigeesh
Gender(M/F/O):M
Age:23
Staff phone no.:9732681467
Address:gandhi nagar
+++++++++++++++++++++++++++++++++++++++
+STAFF IS SUCCESSFULLY ADDED+
+++++++++++++++++++++++++++++++++++++++
1:Add Books
2:Sell Books
3:Search Books
4:Staff Details
5:Sell History
6:Available Books
7:Total Income after the Latest Reset
8:Logout
Enter your choice:4
1:New staff entry
2:Remove staff
3:Existing staff details
Enter your choice:3
(name of staff,gender,age,phone number,address)

EXISTING STAFF DETAILS... ('arya', 'M', 24, '9863467801', 'nehru nagar') ('mrigeesh', 'M', 23, '9732681467', 'gandhi nagar') 1:Add Books 2:Sell Books 3:Search Books 4:Staff Details 5:Sell History 6:Available Books 7:Total Income after the Latest Reset 8:Logout Enter your choice:4 1:New staff entry 2:Remove staff 3:Existing staff details Enter your choice:2 Enter staff name to remove:arya ++STAFF IS SUCCESSFULLY REMOVED++ 1:Add Books 2:Sell Books 3:Search Books 4:Staff Details 5:Sell History

6:Available Books

7:Total Income after the Latest Reset 8:Logout Enter your choice:4 1:New staff entry 2:Remove staff 3:Existing staff details Enter your choice:3 (name of staff,gender,age,phone number,address) **EXISTING STAFF DETAILS...** ('mrigeesh', 'M', 23, '9732681467', 'gandhi nagar') 1:Add Books 2:Sell Books 3:Search Books 4:Staff Details 5:Sell History 6:Available Books 7:Total Income after the Latest Reset 8:Logout Enter your choice:5 1:Sell history details 2:Reset Sell history Enter your choice: 1 (customer,phone number,book sold,number of copies sold,selling price) ('srini', '9876543210', 'malgudi days', 35, 400)

(customer, phone number, book sold, number of copies sold, selling price)

('ram', '8905324567', 'geronimo stilton', 3, 25)

- 1:Add Books
- 2:Sell Books
- 3:Search Books
- 4:Staff Details
- 5:Sell History
- 6:Available Books
- 7:Total Income after the Latest Reset
- 8:Logout

Enter your choice:7

the total revenue is 14075

- 1:Add Books
- 2:Sell Books
- 3:Search Books
- 4:Staff Details
- 5:Sell History
- 6:Available Books
- 7:Total Income after the Latest Reset
- 8:Logout

Enter your choice:8

YOU HAVE LOGGED OUT OF YOUR ACCOUNT.....COME BACK SOON :-)

BIBLIOGRAPHY:

Reference book: Sumitha Arora

https://www.bing.com/ck/a?!&&p=3e8fe50cd01bbc1fJmltdHM9
MTY3MDAyNTYwMCZpZ3VpZD0zMWlxOGYwYi1iMTJjLTZINTltM2
VkMy05ZTg2YjA4MTZm0DUmaW5zaWQ9NTlwNw&ptn=3&hsh=
3&fclid=31b18f0b-b12c-6e52-3ed39e86b0816f85&psq=teach+yourself+python&u=a1aHR0cHM6L
y90ZWFjaHlvdXJzZWxmcHl0aG9uLmNvbS8&ntb=1

https://www.bing.com/ck/a?!&&p=e4cb1f62236836e9JmltdHM9 MTY3MDAyNTYwMCZpZ3VpZDOzMWlxOGYwYi1iMTJjLTZINTltM2 VkMy05ZTg2YjA4MTZmODUmaW5zaWQ9NTQzOA&ptn=3&hsh= 3&fclid=31b18f0b-b12c-6e52-3ed3-

<u>9e86b0816f85&psq=f+string+formatting+python&u=a1aHR0cHM6Ly93d3cuZ2Vla3Nmb3JnZWVrcy5vcmcvZm9ybWF0dGVkLXNOcmluZy1saXRlcmFscy1mLXNOcmluZ3MtcHl0aG9uLw&ntb=1</u>

THANK YOU