In this Assignment I created different classes for each things lists of books, lists of Customers, lists of people rented and for each of these classes I have created a class where there are all getters and setters for the lists I created. Then I made a gui class where I made gui in which I made a frame of 1500 and set background as Dark gray and I also inserted an image using ("**import** javax.swing.ImageIcon;") which helps me created the image from the file which is my homework 5 folder and using (ImageIcon image = **new** ImageIcon(ImageIO.*read*(**new** File("books.jpg")));) this method I read the file Using imageIO.read which works the same as the file reader. Then I stored this into Jlabel which helps me to insert in the Frame. And then I Created different buttons for the things I want to perform in my Gui. I set my Textarea color to blue font as georgia and size to 15 using font built in function. And I also added a Scroll bar for my Textarea.

This is how my Gui looks like:
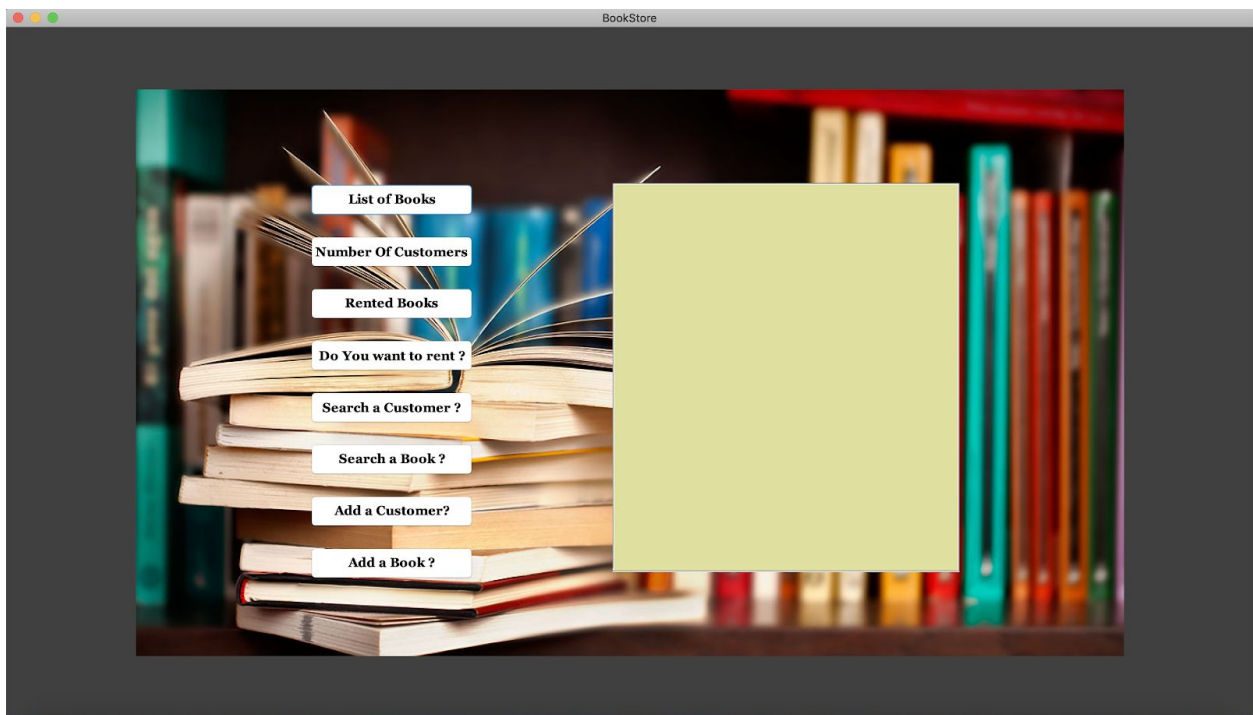
In my First Button (List Of books):

I created a method in which I store all the value in an arraylist using the classes I made for Lists of books. Then Using String Builder (it is Something which helps us created a string) in which I made a for loop and in my for loop I used Append which adds the string I created above my for loop. And then I used t.settext(s.toString()) to print my string in textarea.

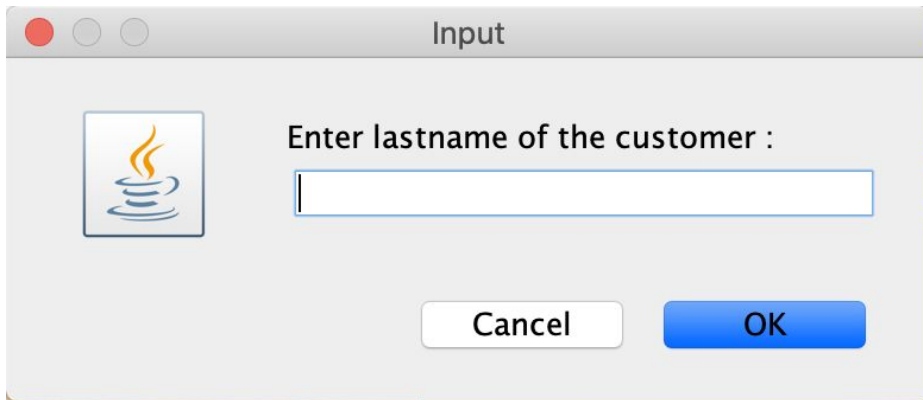In my Second Button (Number of customers):

I created a method in which I store all the value in an arraylist using the classes I made for Lists of customers. Then Using String Builder (it is Something which helps us created a string) in which I made a for loop and in my for loop I used Append which adds the string I created above my for loop. And then I used t.settext(s.toString()) to print my string in textarea.

List of Books

Number Of Customers

Rented Books

Do You want to rent ?

Search a Customer ?

Search a Book ?

Add a Customer?

Add a Book ?

1) Name: Shaunak Patel
Bookname: The Great Gatsby
email: Shaunakpatel15@gmail.com

2) Name: John Parker
Bookname: Looking For Alaska
email: JohnParker60@gmail.com

3) Name: Jill Aniston
Bookname: The Great Gatsby
email: jAniston43@yahoo.com

4) Name: Peter Stone
Bookname: Sanjay Dutt
email: Stone23@gmail.com

In my Third Button (Lists of Rented):

I created a method in which I store all the value in an arraylist using the classes I made for Lists of Rented. Then Using String Builder (it is Something which helps us created a string) in which I made a for loop and in my for loop I used Append which adds the string I created above my for loop. And then I used t.settext(s.toString()) to print my string in textarea.
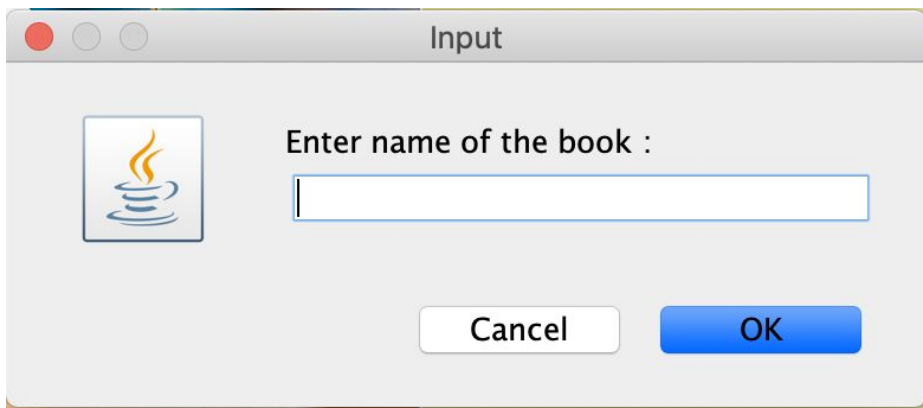
In my Forth Button (Do You want to rent?):

I created a method in which I store all the value in an arraylist using JOptionPane.*showInputDialog* which pops up a dialog box in which users need to input the last name, Book name and author and this are information user gives is added in Arraylist as a string. And If user does not input anything it prints out null. Then Using String Builder (it is Something which helps us created a string) in which I made a for loop and in my for loop I used Append which adds the string I created above my for loop. And then I used t.settext(s.toString()) to print my string in textarea. Then After that I also add a method for adding the customer who came to rent the book in Rented books where all rented books information is stored.

First Dialog box (for last name):
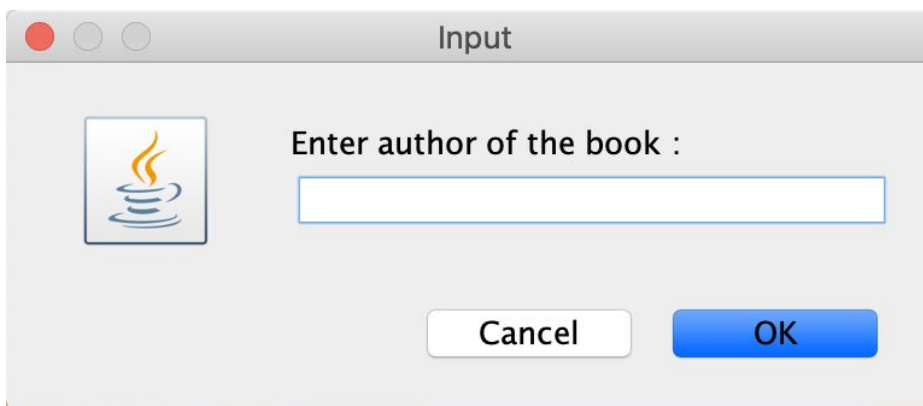
Second Dialog box (for book name):
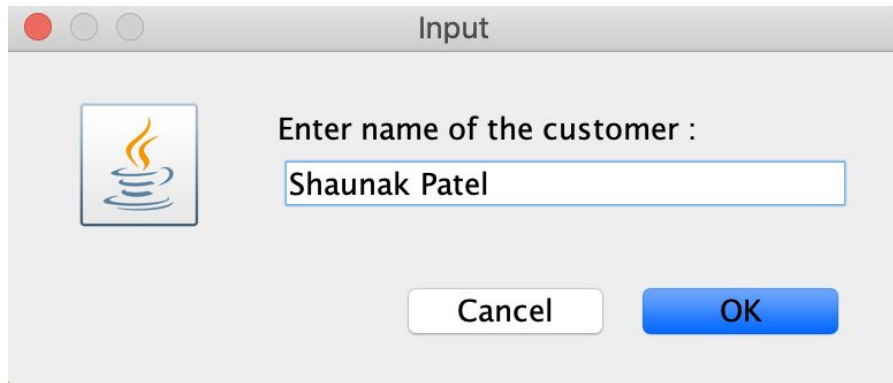

Third Dialog box (Author name):

For example If I added "Saxena" as last name, "Looking for Alaska" as Book name, John Green as author name.then The output will be.
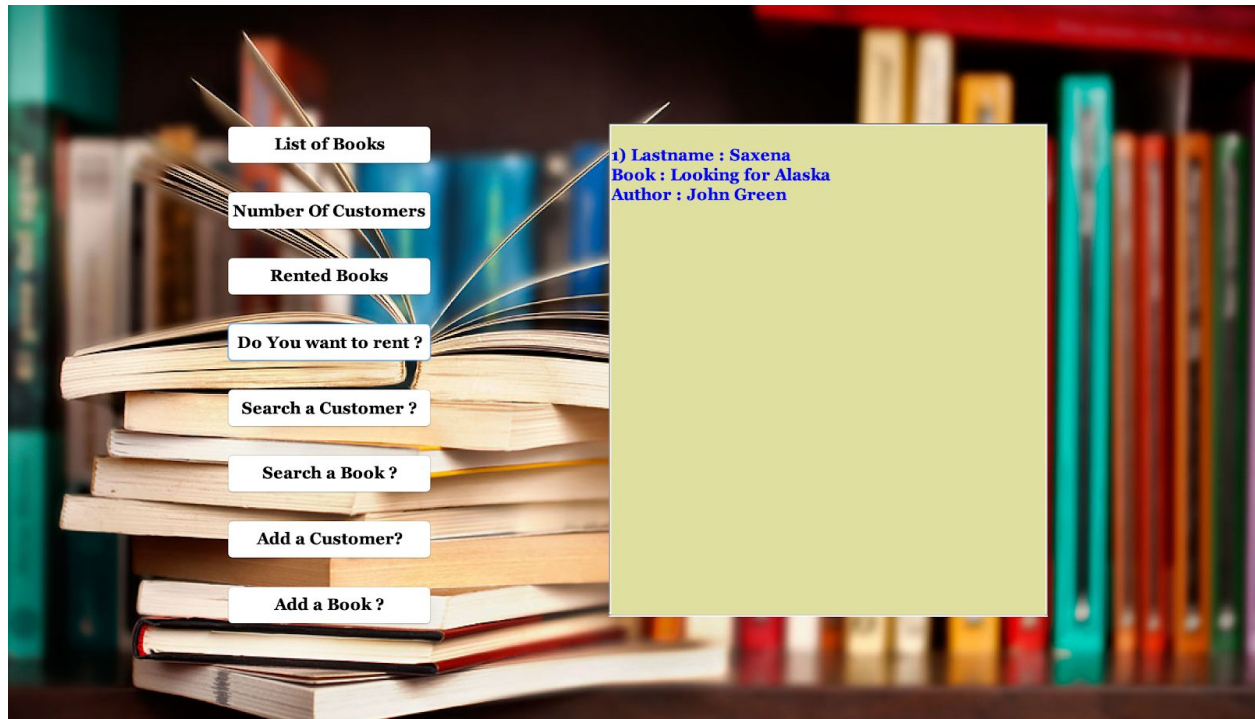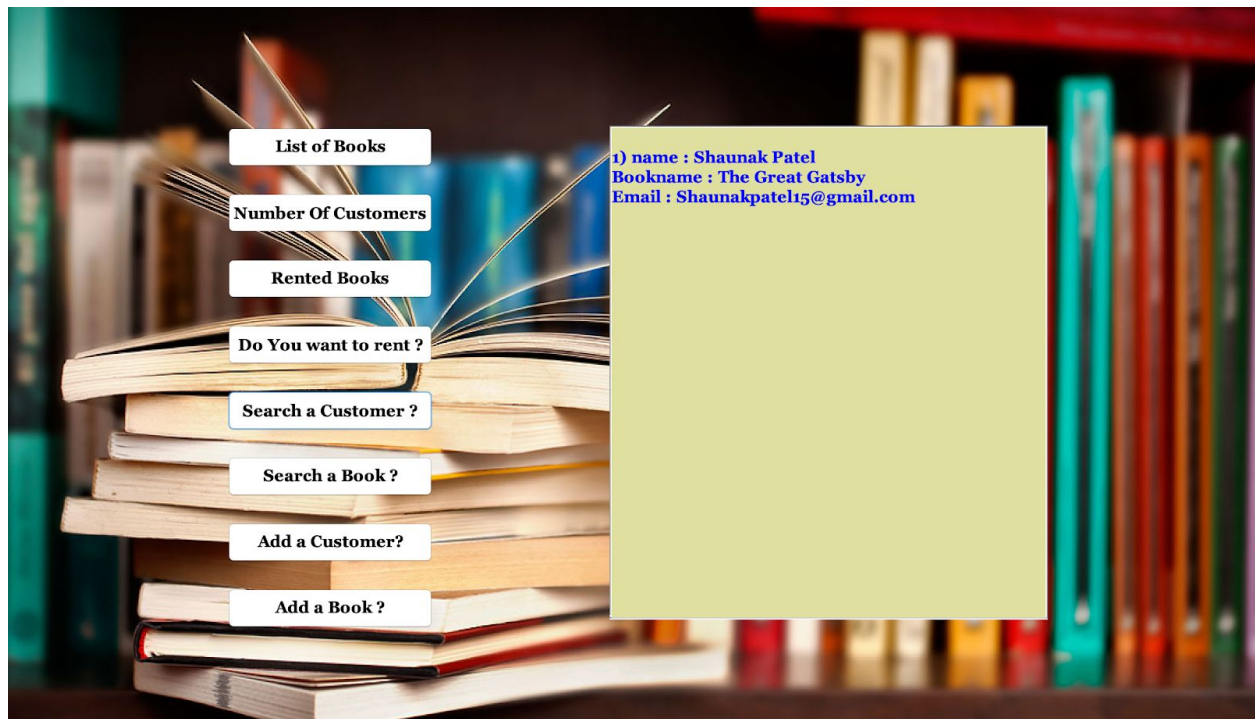

In my Fifth Button (Search a Customer?):

I created a method in which I store all the value in an arraylist using JOptionPane.*showInputDialog* which pops up a dialog box in which users need to input the name of the customer and this are information user gives is added in Arraylist as a string. And If user does not input anything it prints out null. And the user input is then Been match with the index of names in the Arraylist which we First created for List of Customers. If the user Input is equal to the arraylist of the list of customers then it prints all the information (Name , Book name , email). And if the user spell the name wrong or the user input wrong name it ask for new user input. Then Using String Builder (it is Something which helps us created a string) in which I made a for loop and in my for loop I used Append which adds the string I created above my for loop. And then I used t.settext(s.toString()) to print my string in textarea.
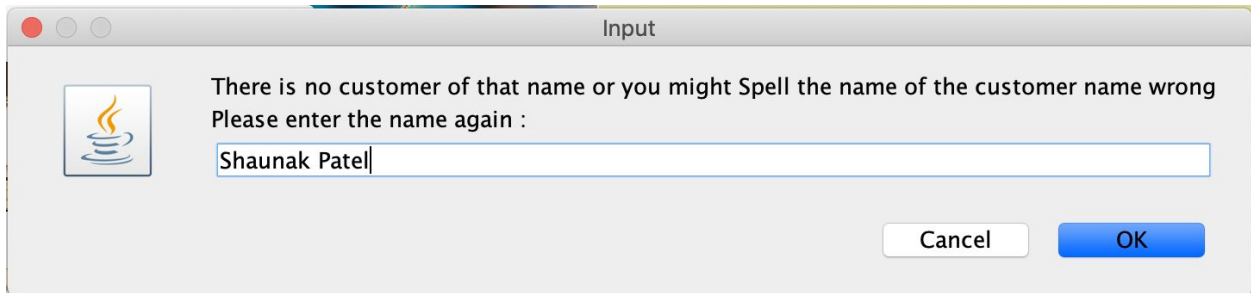
First Dialog box (for name):

My output if the name is right

If the input of user is wrong then It pops up a new dialog box

Input

There is no customer of that name or you might Spell the name of the customer name wrong
Please enter the name again :

Shaunak Patel

Cancel   OK

In my Sixth Button (Search a Book?):

I created a method in which I store all the value in an arraylist using JOptionPane.*showInputDialog* which pops up a dialog box in which users need to input the name of the book and this are information user gives is added in Arraylist as a string. And If user does not input anything it prints out null. And the user input is then match with the index of names in the Arraylist which we First created for List of book. If the user Input is equal to the arraylist of the list of books then it prints all the information (book Name, author, pages , Publishers , Number of books). And if the user spell the name wrong or the user input wrong name it ask for new user input. Then Using String Builder (it is Something which helps us created a string) in which I made a for loop and in my for loop I used Append which adds the string I created above my for loop. And then I used t.settext(s.toString()) to print my string in textarea.

First Dialog box (for name):

Input

Enter name of the book :
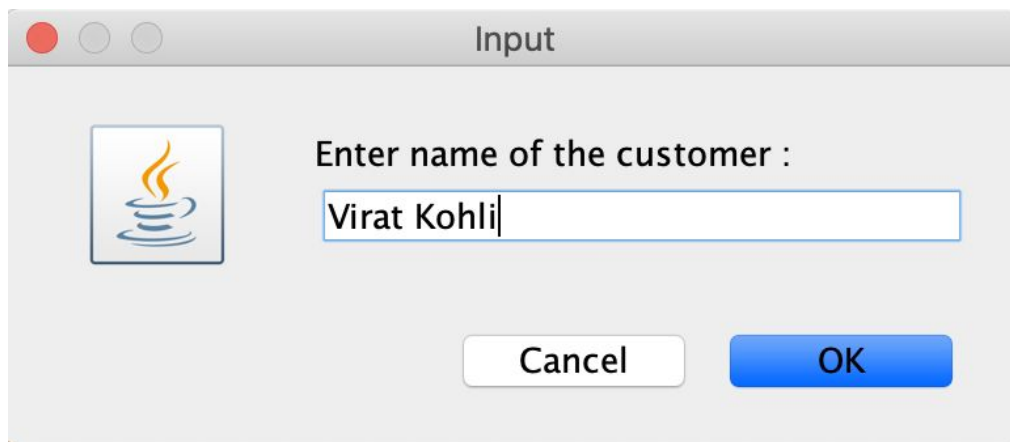
Looking for Alaska

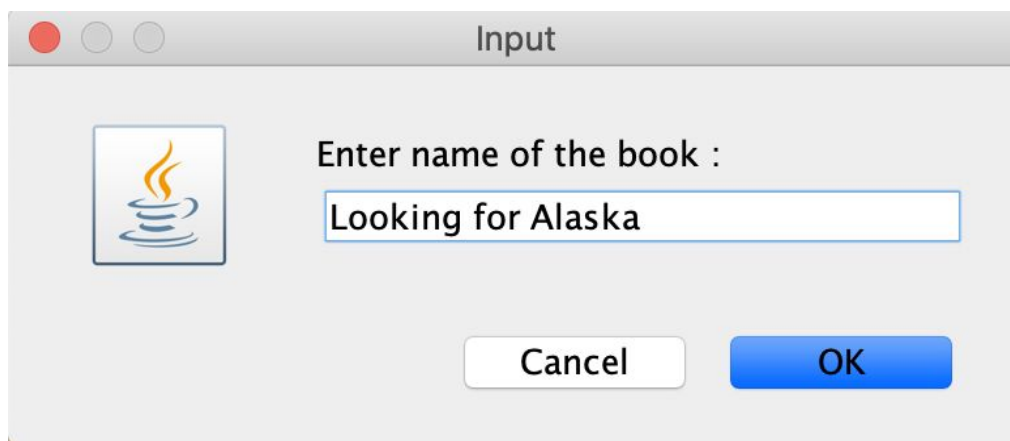Cancel   OK
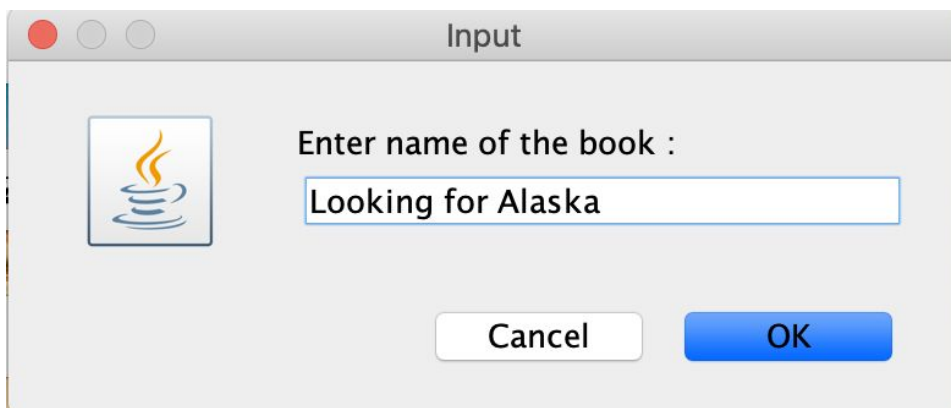
My output if the user input is right:
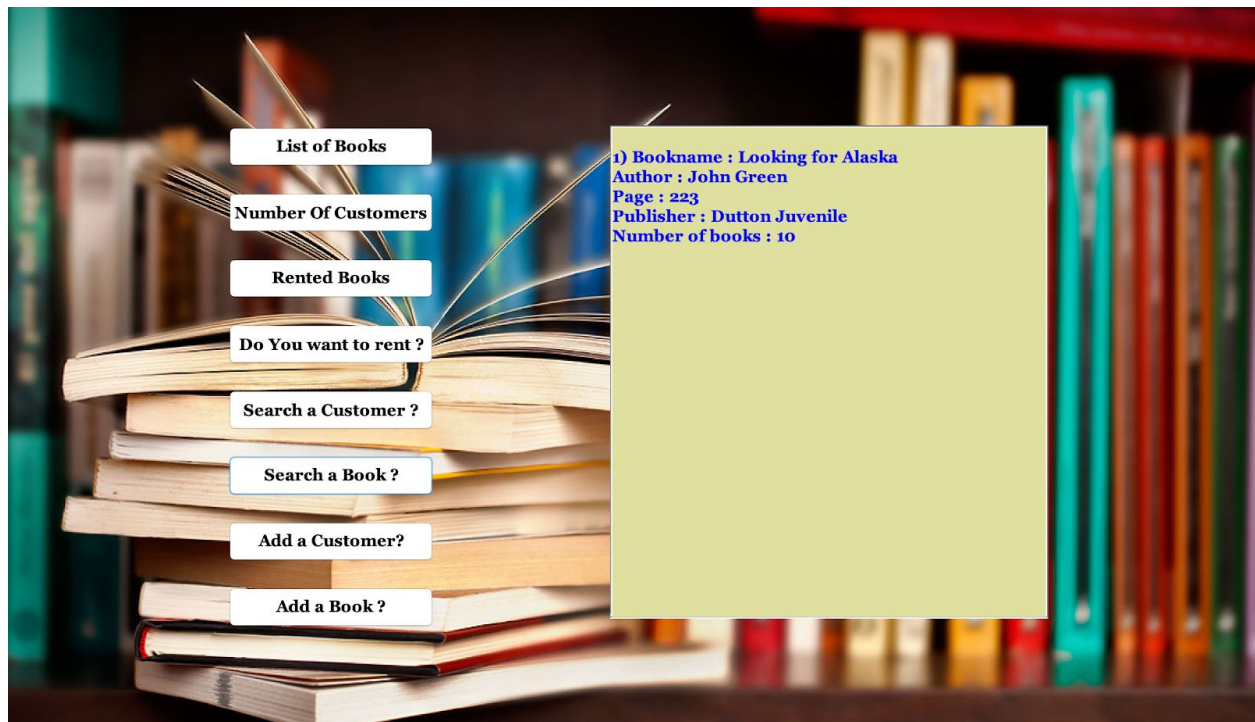
In my Seventh Button (Add a Customer?):

I created a method in which I store all the value in an arraylist using JOptionPane.*showInputDialog* which pops up a dialog box in which users need to input the name of the customer, the name of the book , email of the customer and this are information user gives is added in Arraylist as a string. And If user does not input anything it prints out null. Then Using String Builder (it is Something which helps us created a string) in which I made a for loop and in my for loop I used Append which adds the string I created above my for loop. And then I used t.settext(s.toString()) to print my string in textarea.Then After that I also add a method using File writer for adding the customer the user just input in list of customers where all customer information is stored.
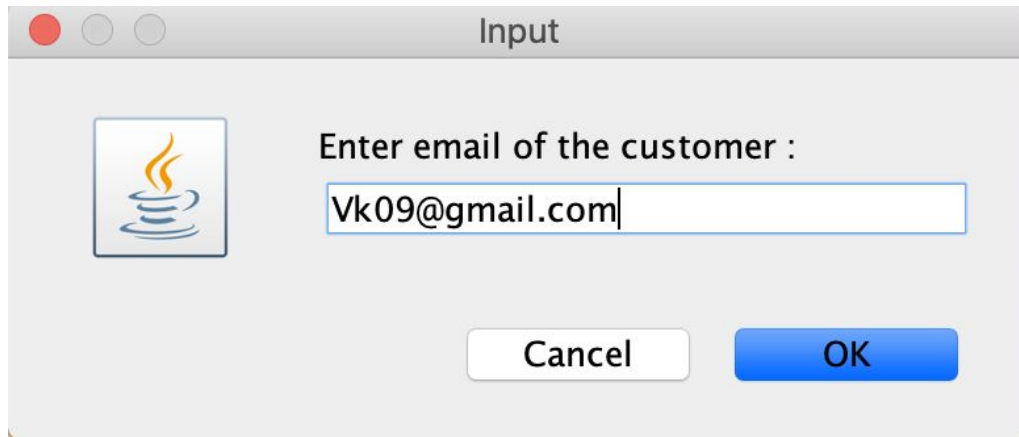
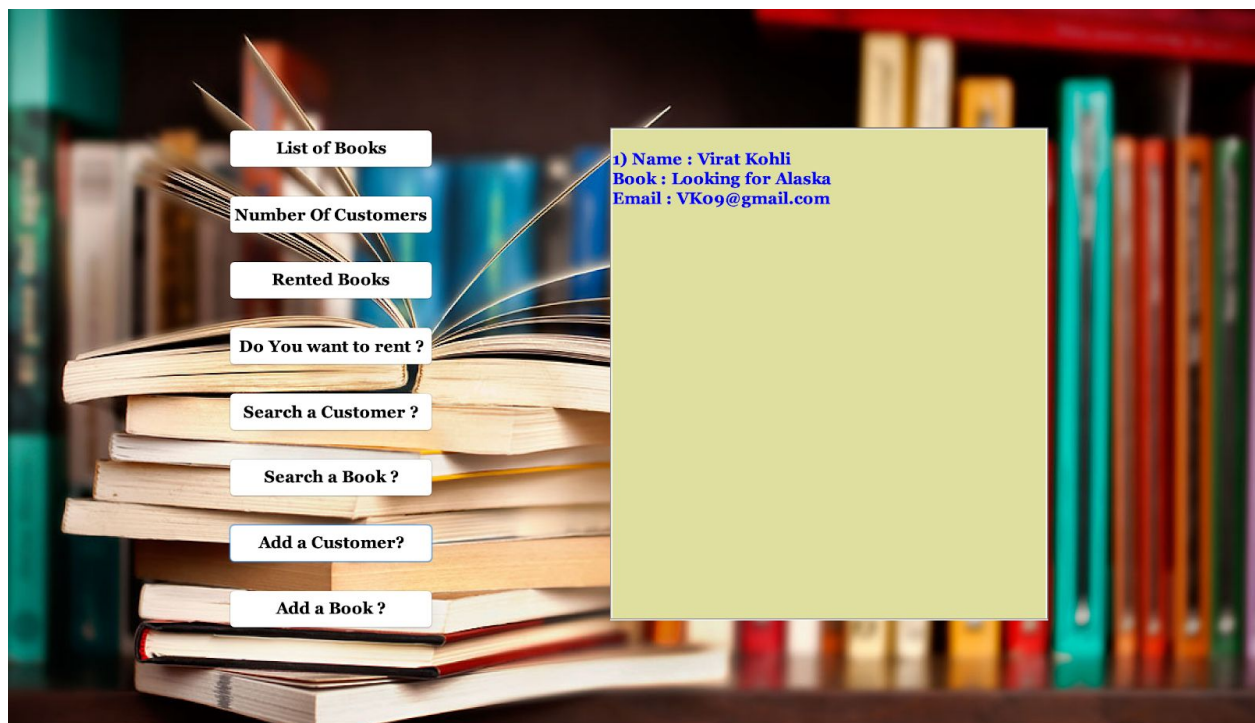First Dialog box (for name of customer):

second Dialog box (for book name):

Third Dialog box (for email of customer):

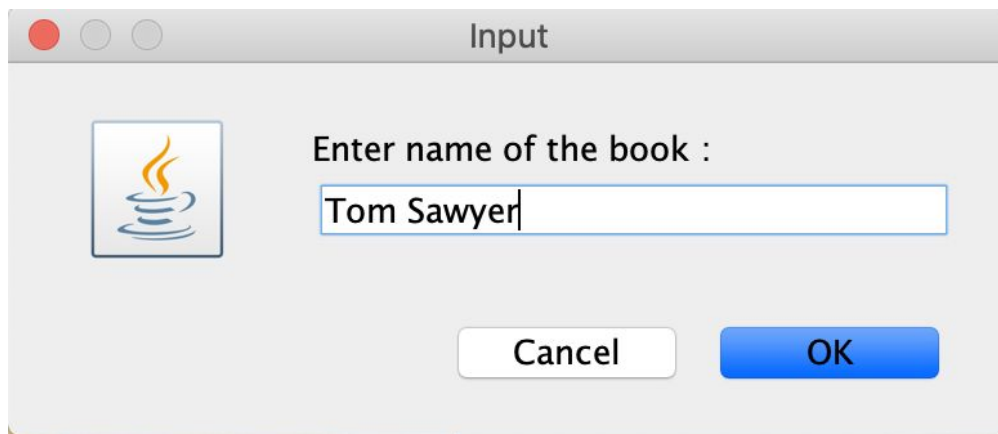My output after all the user input:


In my Eighth Button (Add a Book?):

I created a method in which I store all the value in an arraylist using JOptionPane.*showInputDialog* which pops up a dialog box in which users need to input the name of the book , the name of the author , number of pages, publishers name, number of books in inventory and this information user gives is added in Arraylist as a string. And If user does not input

anything it prints out null. Then Using String Builder (it is Something which helps us created a string) in which I made a for loop and in my for loop I used Append which adds the string I created above my for loop. And then I used t.settext(s.toString()) to print my string in textarea.Then After that I also add a method using File writer for adding the book the user just input in list of books where all books information is stored.
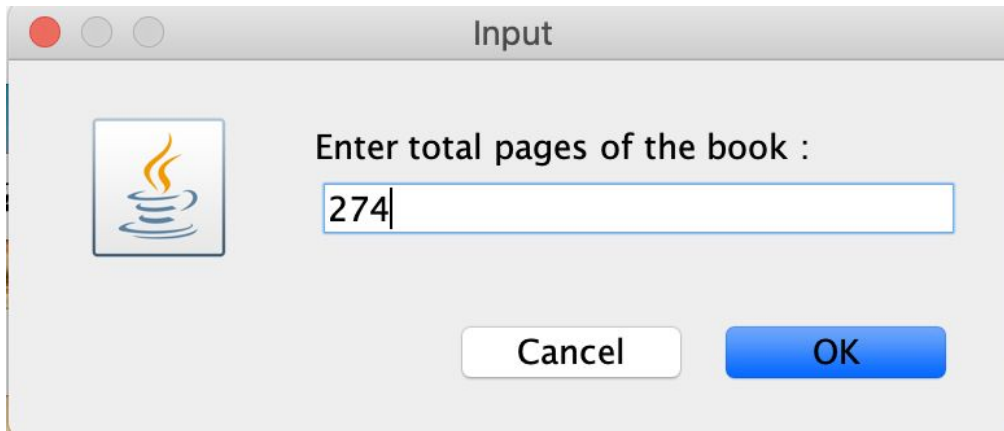
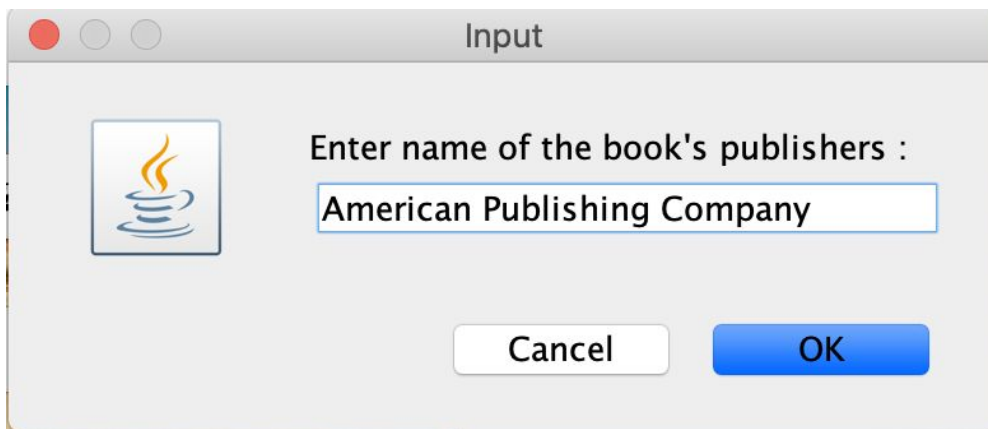First input dialog box (enter name):
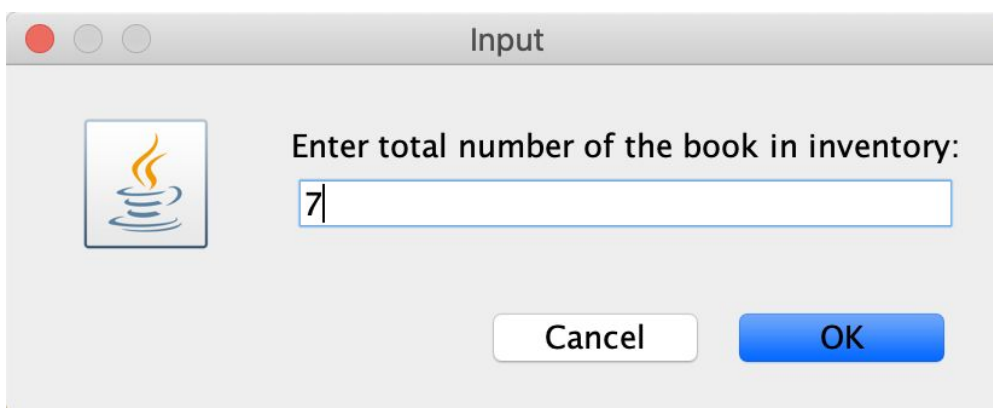

Second Dialog box (enter author name:)
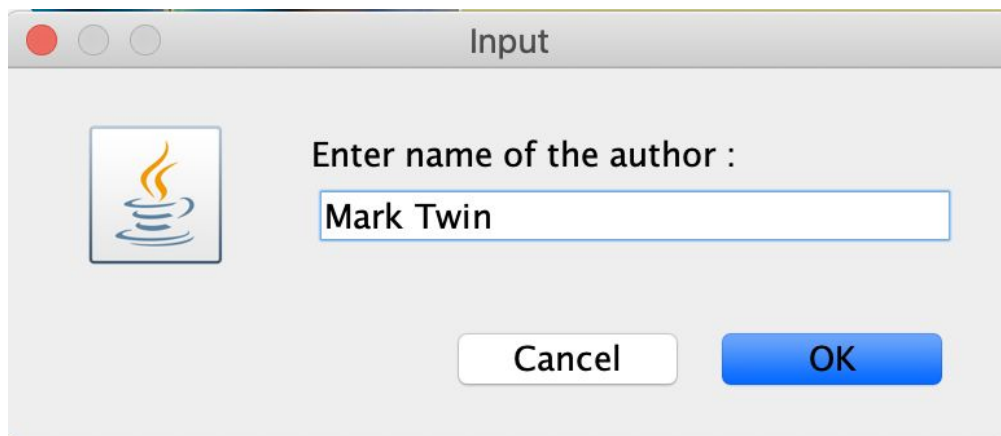
Third Dialog box (enter number of pages:)

Fourth Dialog box (enter publishers name:)

Fifth Dialog box (enter number of books:)

My output after all the inputs given by user

1) Bookname : Tom Sawyer
Author : Mark Twin
Pages : 274
Publishers : American Publishing Company
Number of books : 7