

ASSIGNMENT-9 : MINI PROJECT

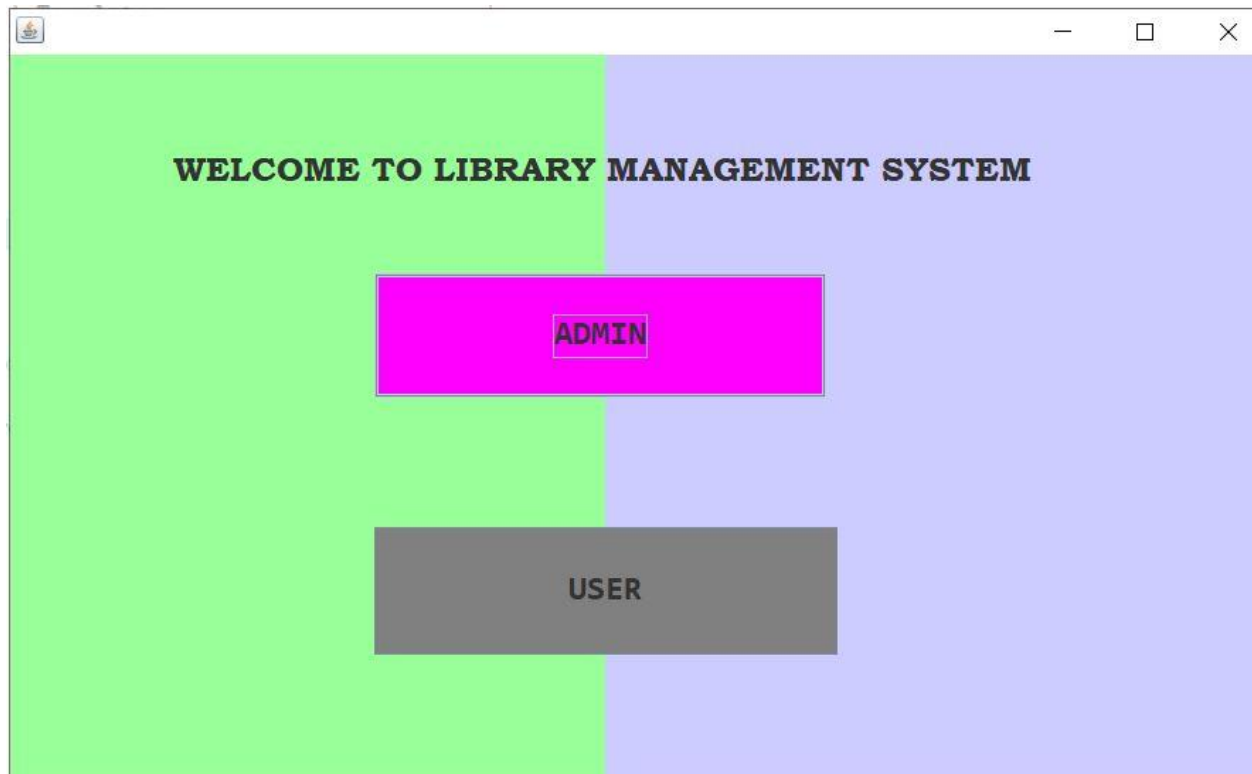
Aim : Library Management System

NetBeans v8.2

Sample Outputs:

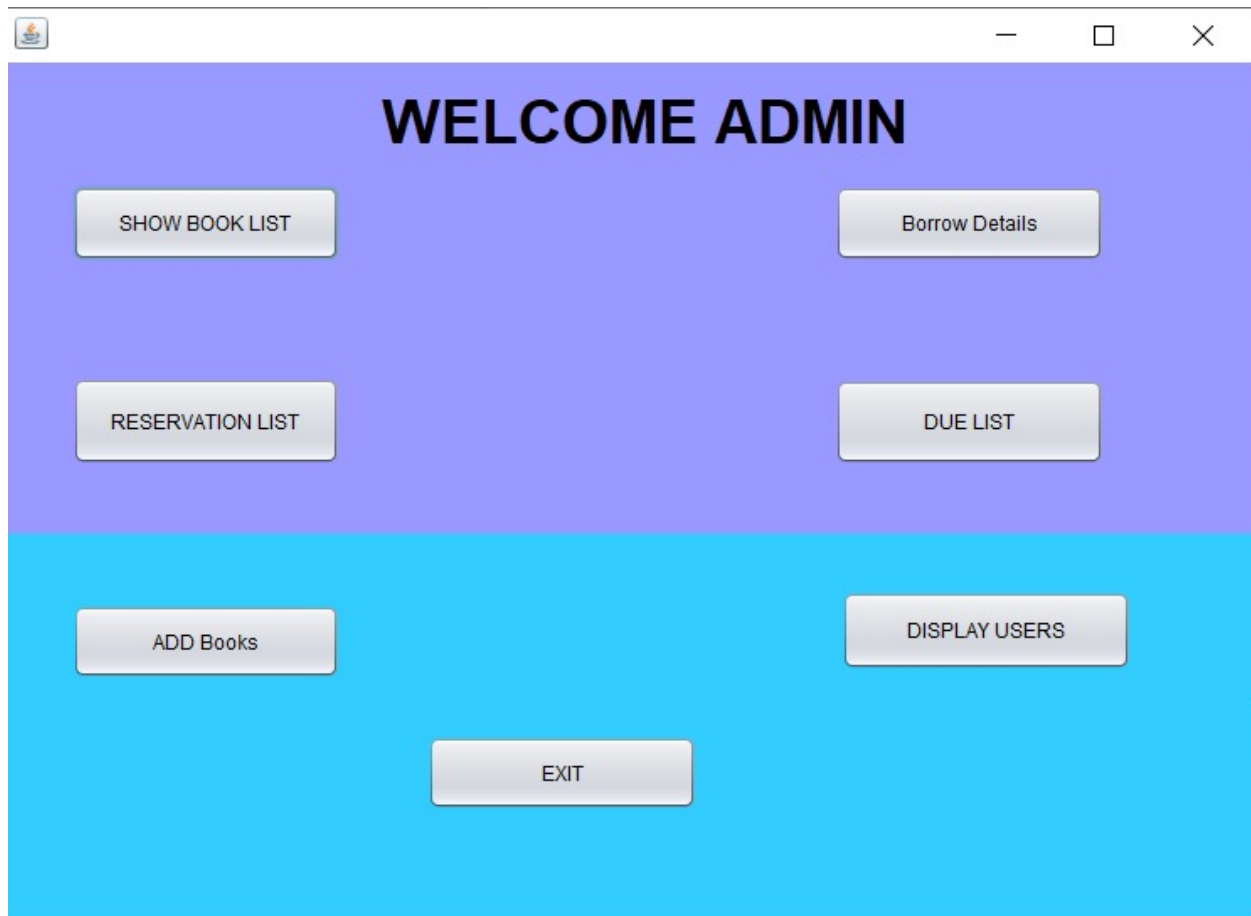
Home Page

The home page requests the type of login, admin, or user by clicking the appropriate buttons present.



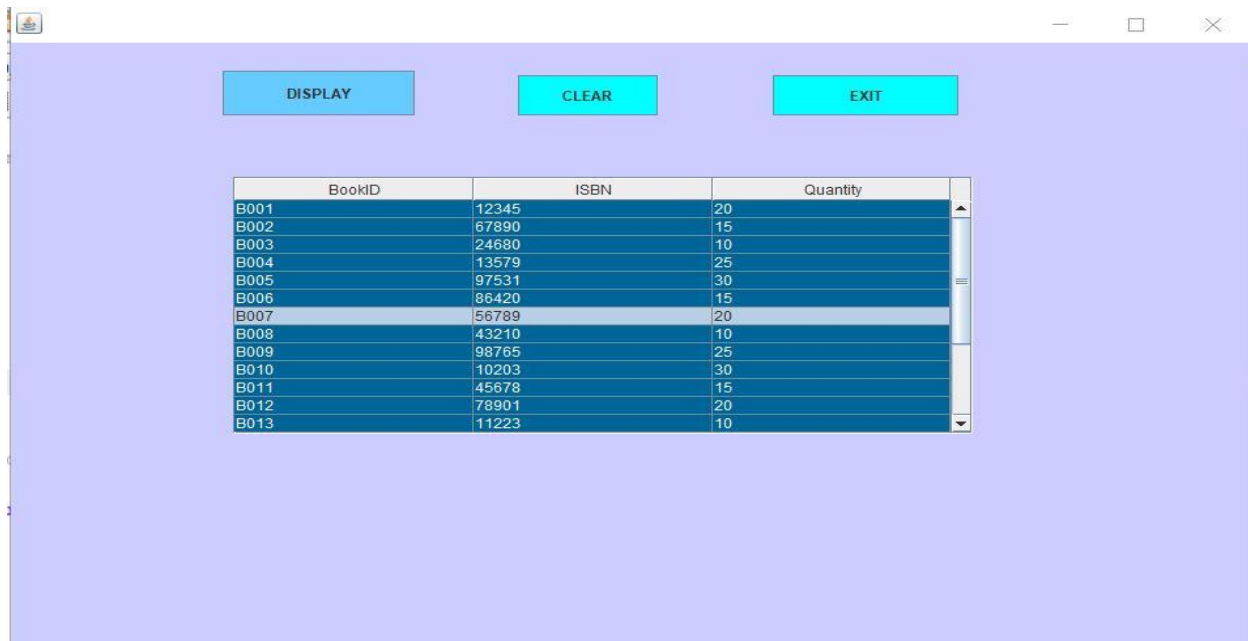
ADMIN MODE

The admin is the person managing the library system having permission to add books, check the book list, reservation list, borrowed book details, and the due list. Admin can also keep track of the users, the number of borrowings, and reservations made by each user.



Show Book Lists

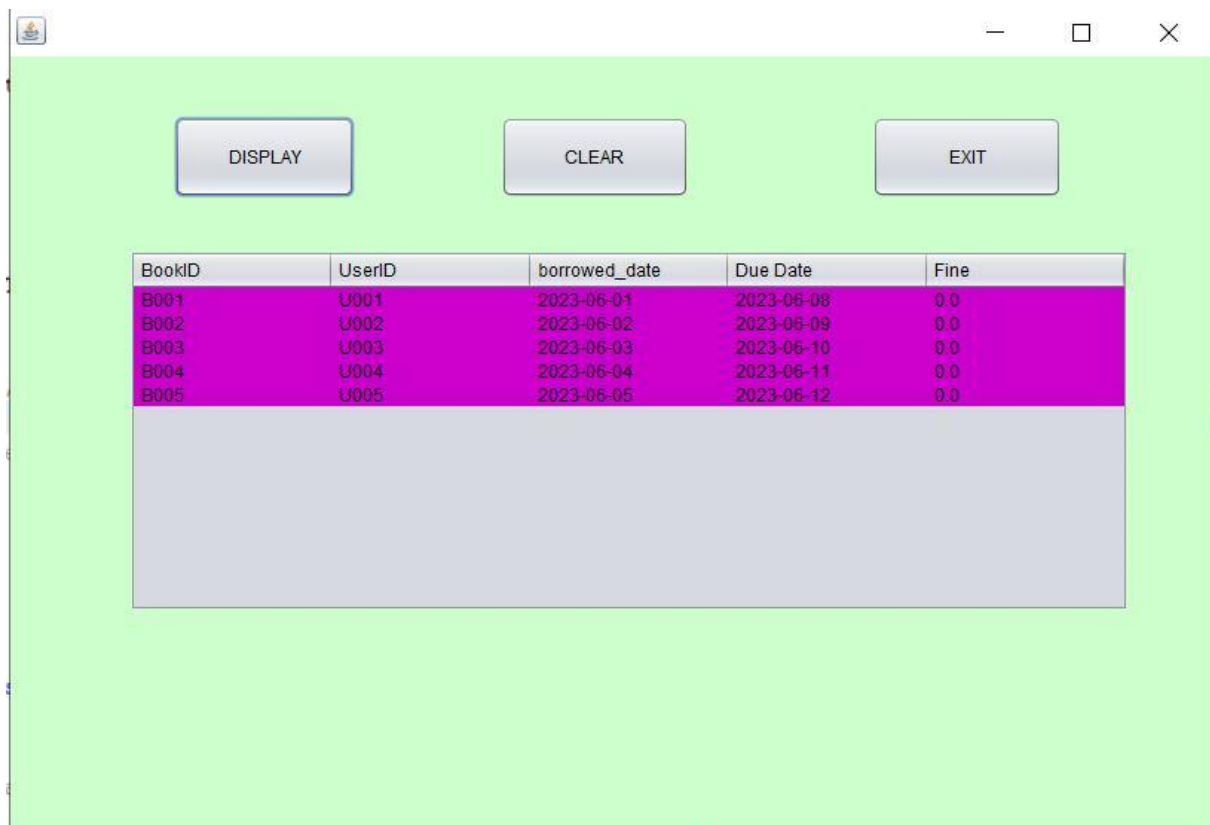
The book list displays the BookID followed by the library, ISBN the ID provided to the book on the international forum, and the number of copies available in the library which could be borrowed.



BookID	ISBN	Quantity
B001	12345	20
B002	67890	15
B003	24680	10
B004	13579	25
B005	97531	30
B006	86420	15
B007	56789	20
B008	43210	10
B009	98765	25
B010	10203	30
B011	45678	15
B012	78901	20
B013	11223	10

Borrow Details

The borrow details consist of the BookID borrowed, the UserID of the person who borrowed, and the borrow date and the due date with the computation of a fine on the basis of Rs.25 for each day in case of failing to return on or before its due date.



BookID	UserID	borrowed_date	Due Date	Fine
B001	U001	2023-06-01	2023-06-08	0.0
B002	U002	2023-06-02	2023-06-09	0.0
B003	U003	2023-06-03	2023-06-10	0.0
B004	U004	2023-06-04	2023-06-11	0.0
B005	U005	2023-06-05	2023-06-12	0.0

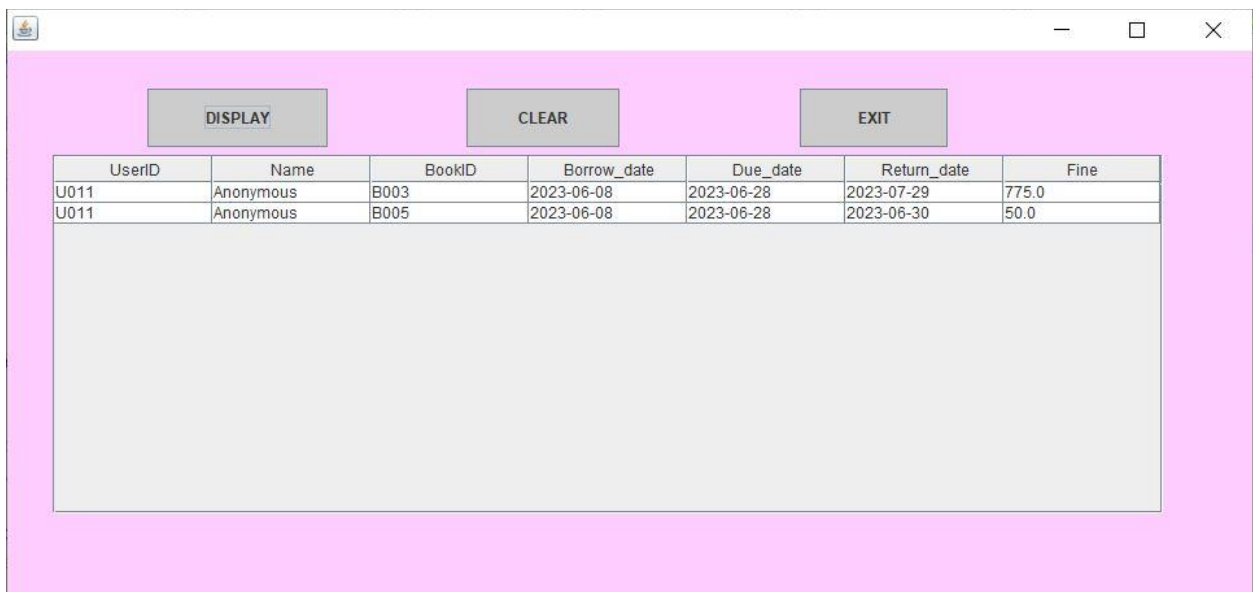
Reservation Details

The Reservation details consist of the UserID, Name of the book reserved, its BookID, and the date of reservation. It gets displayed on the order of the date of reservation.

UserID	Name	BookID	Reservation_date
U002	Emma Johnson	B003	2023-06-02
U003	Michael Brown	B002	2023-06-03
U004	Sophia Williams	B004	2023-06-04

Due details

The Due Details module allows the admin to retrieve the book borrowings which has exceeded the due date. It contains the UserID, Name, BookID, date of borrowing, the due date, the return date, and the fine which is computed based on the due date and return date.



UserID	Name	BookID	Borrow_date	Due_date	Return_date	Fine
U011	Anonymous	B003	2023-06-08	2023-06-28	2023-07-29	775.0
U011	Anonymous	B005	2023-06-08	2023-06-28	2023-06-30	50.0

Adding new books

The Admin has permission to add new books to the database where he/she should insert the information regarding the book.

BookID: B021

ISBN: 98766

Title: One Piece

Genre: Shonen

Quantity: 1

Publisher_ID: P009

Author_ID: A007

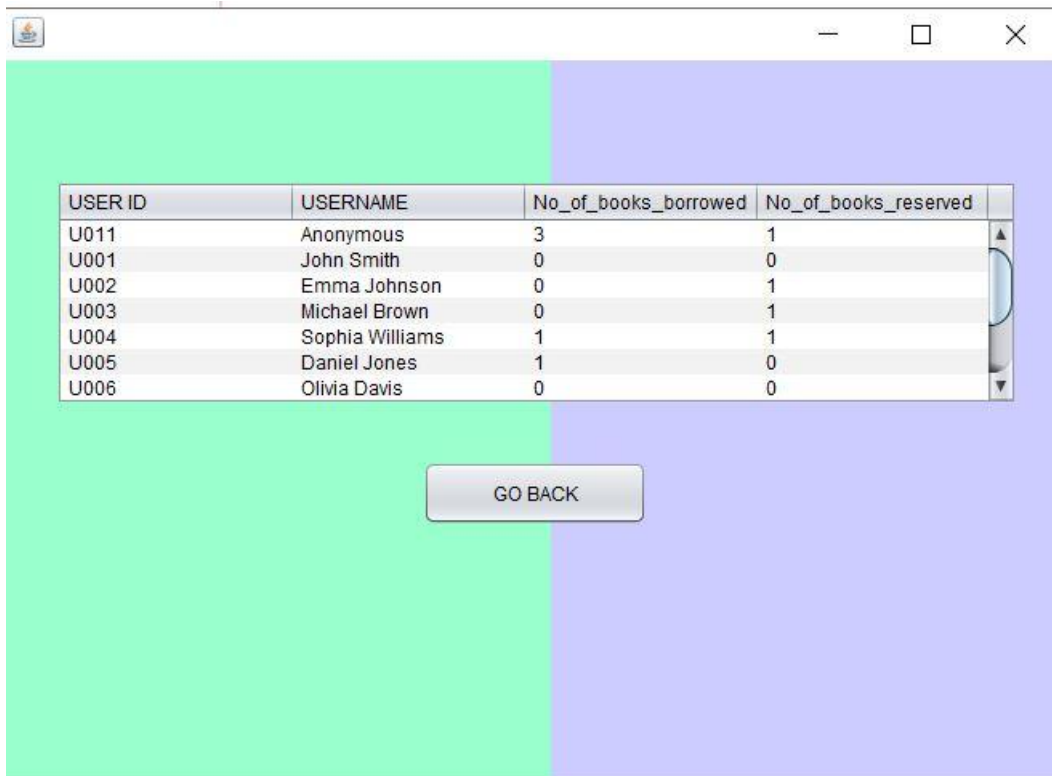
Publisher Year: 1999

Buttons: INSERT, CLEAR, GO BACK, EXIT

Message: Record inserted successfully!!

LIST OF USERS

The list of users displays the UserID and name of all the users present in the database with also the number of borrowings or reservations made by them.

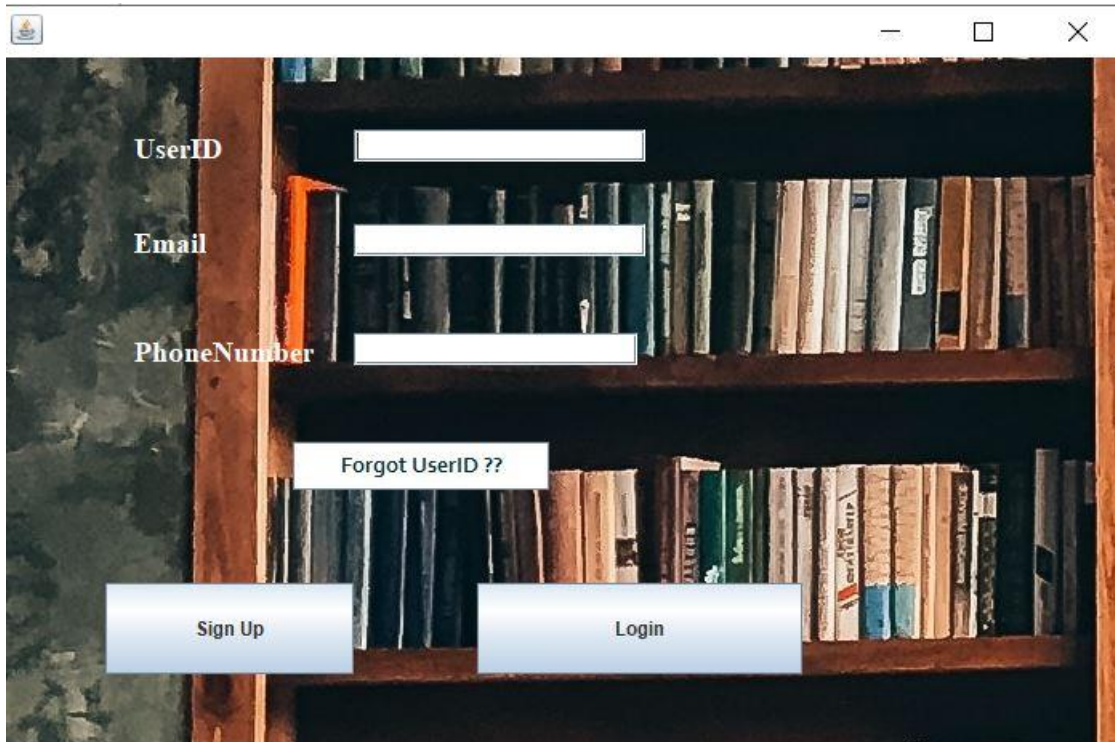


USER ID	USERNAME	No_of_books_borrowed	No_of_books_reserved
U011	Anonymous	3	1
U001	John Smith	0	0
U002	Emma Johnson	0	1
U003	Michael Brown	0	1
U004	Sophia Williams	1	1
U005	Daniel Jones	1	0
U006	Olivia Davis	0	0

USER MODE

LOGIN PAGE

The user's login page allows both the login process for already existing users and the sign-up process for new users.



The screenshot shows a web application window with a bookshelf background. The login page includes the following elements:

- UserID**: A text input field.
- Email**: A text input field.
- PhoneNumber**: A text input field.
- Forgot UserID ??**: A link or button to recover a forgotten UserID.
- Sign Up**: A button for new users to register.
- Login**: A button for existing users to log in.

SIGN UP PAGE

Upon clicking the sign-up button, the required details have to be provided and the sign-up button creates an account by inserting this record into the users table.

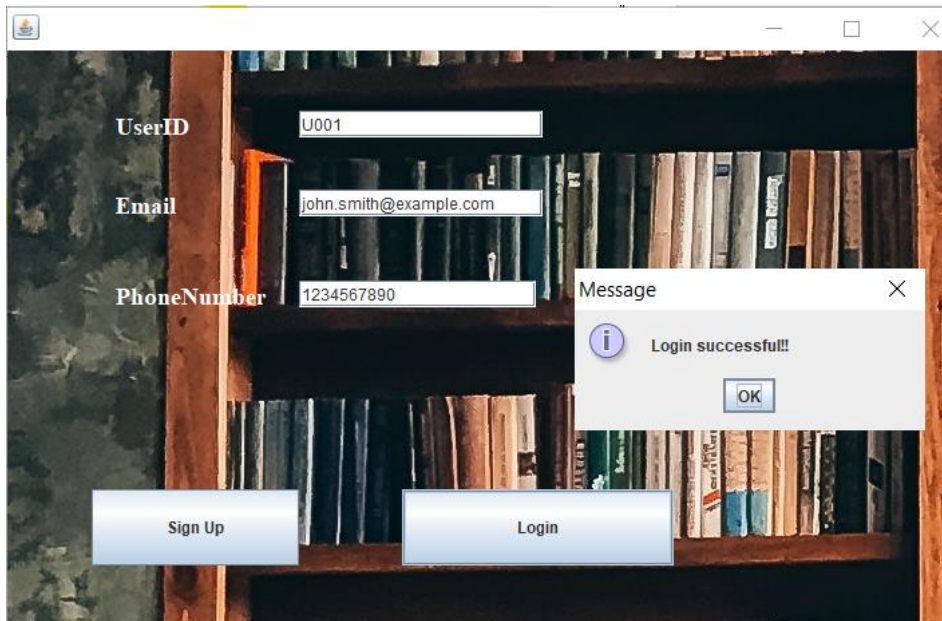
The screenshot shows a web-based sign-up form. The form is divided into two main sections: a light green left section for labels and a light orange right section for input fields. The input fields are as follows:

- USERID**: Text input with value "U011".
- EMAIL**: Text input with value "abc@gmail.com".
- NAME**: Text input with value "Anonymous".
- PHONENUMBER**: Text input with value "9476005733".
- ADDRESS**: Dropdown menu with value "Avadi".
- D.O.B**: Text input with value "08-09-2003". Below this field is a red label "dd-mm-yyyy".

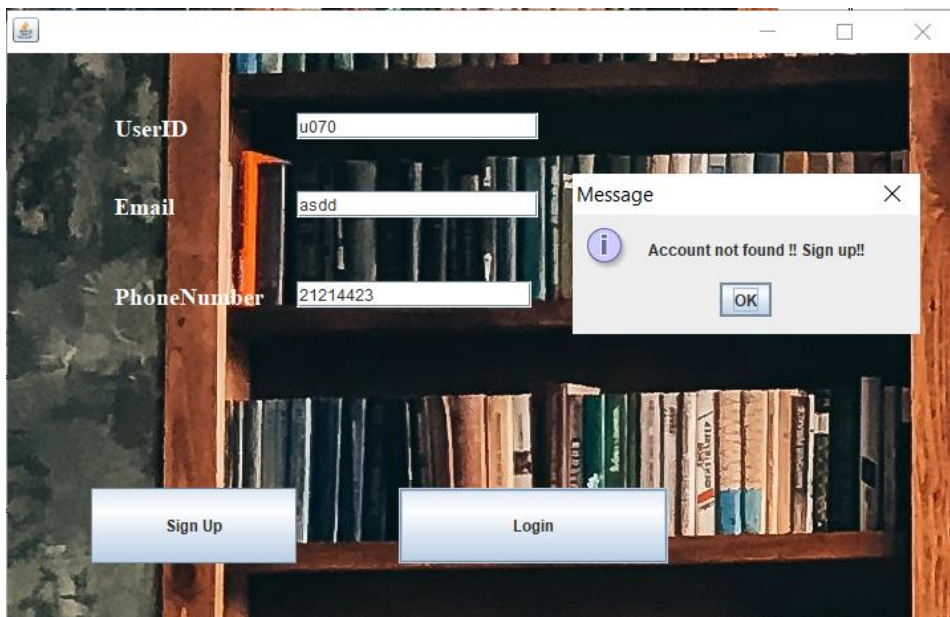
At the bottom of the form, there are three buttons: "SIGN UP", "CANCEL", and "CLEAR". A modal message box is open on the right side of the form, displaying the text "Account created successfully!!" with an "OK" button.

LOGIN SUCCESSFUL

When the provided login details are valid and correct, the message box will display the login successful message.

**INVALID LOGIN**

When it isn't correct, it will report that the account isn't found and will ask you to use the sign-up option.



FORGOT USERID

In case the user has forgotten his UserID, he/she can retrieve it by using the forgot userid module where the user can provide their mail id and phone number and get their respective UserID.

ENTER YOUR EMAIL ID: abc@gmail.com

ENTER YOUR PHONENUMBER: 9476005733

Message: Your USERID IS U011

FIND MY USERID CLOSE

USER HOMEPAGE

WELCOME U011

BORROW BOOK RETURN LOG OUT

Username: username

Password: *****

Login Register

BORROW BOOKS (QUANTITY IS EFFECTIVE QUANTITY)

The borrow book allows the user to borrow the books which are available in the library and reserve the books in case there are no copies available in the library. The maximum number of borrowing and reservations a user can do is 3 in each case.

ISBN	BOOKID	TITLE	PUBLISHERID	AUTHORID	Quantity
98766	B021	One Piece	P009	A007	1
12345	B001	The Great Gatsby	P001	A001	20
67890	B002	To Kill a Mockingbird	P002	A002	14
24680	B003	1984	P003	A003	9
13579	B004	Pride and Prejudice	P004	A004	24
97531	B005	The Catcher in the Rye	P005	A005	30
86420	B006	The Hobbit	P006	A006	15
56789	B007	Harry Potter and the Sorc...	P007	A007	20
43210	B008	The Lord of the Rings	P006	A006	10

SELECTED BOOK TITLE: One Piece

ENTER BORROW D...: 07-06-2023

dd-mm-yyyy

PROCEED

BookID	Title	Borrow Date	Due Date
B021	One Piece	2023-06-07	2023-06-27
B003	1984	2023-06-08	2023-06-28
B005	The Catcher in the Rye	2023-06-08	2023-06-28

EXIT

SHOW AVAILABLE BOOKS

GO BACK

ISBN	BOOKID	TITLE	PUBLISHERID	AUTHORID	Quantity
98766	B021	One Piece	P009	A007	0
12345	B001	The Great Gatsby	P001	A001	20
67890	B002	To Kill a Mockingbird	P002	A002	14
24680	B003	1984			8
13579	B004	Pride and Prejudice			24
97531	B005	The Catcher in the Rye			29
86420	B006	The Hobbit			15
56789	B007	Harry Potter and the Chamber of Secrets			20
43210	B008	The Lord of the Rings			10

Message

You can borrow atmost 3 books!!
You can reserve Books for now!!

OK

SELECTED BOOK TITLE

The Lord of the Rings

ENTER BORROW D...
dd-mm-yyyy

07-07-2023

PROCEED

USER CAN RESERVE AND BORROW ATMOST 3 BOOKS

GO BACK

ISBN	BOOKID	TITLE	PUBLISHERID	AUTHORID	Quantity
10203	B010	Gone Girl	P009	A009	30
45678	B011	The Da Vinci Code	P010	A010	15
78901	B012	The Alchemist	P001	A001	20
11223	B013	The Chronicles of Narnia	P006	A006	10
44556	B014	The Girl on the Train	P009	A009	25
77889	B015	Brave New World	P003	A003	30
99009	B016	The Fault in Our Stars	P008	A008	15
12321	B017	The Shining	P004	A004	20
35464	B018	The Picture of Dorian Gray	P010	A010	10
68798	B019	The Maze Runner	P005	A005	25
92029	B020	The Lovely Bones	P007	A007	30

SELECTED BOOK TITLE

The Fault in Our Stars

ENTER RESERVATION DATE

08-07-2023

dd-mm-yyyy

PROCEED

Message

Selected book got reserved !!!

OK

GO BACK

ISBN	BOOKID	TITLE	PUBLISHERID	AUTHORID	Quantity
10203	B010	Gone Girl	P001	A001	30
45678	B011	The Da Vinci Code	P002	A002	15
78901	B012	The Alchemist	P003	A003	20
11223	B013	The Chronicles of	P004	A004	10
44556	B014	The Girl on the Tra	P005	A005	25
77889	B015	Brave New World	P010	A010	30
99009	B016	The Fault in Our St	P006	A006	15
12321	B017	The Shining	P007	A007	20
35464	B018	The Picture of Doria...	P010	A010	10
68798	B019	The Maze Runner	P005	A005	25
92029	B020	The Lovely Bones	P007	A007	30

Message: You can reserve atmost 3 books !!!

SELECTED BOOK TITLE: Brave New World

ENTER RESERVATION DATE: 09-07-2023

PROCEED

RETURN BOOKS

The return books module allows you to return the books which the user has borrowed.

DISPLAY CANCEL

TITLE	BOOKID	BORROWED DATE	DUE DATE	FINE
One Piece	B021	2023-06-07	2023-06-27	0.0
1984	B003	2023-06-08	2023-06-28	0.0
The Catcher in the R...	B005	2023-06-08	2023-06-28	0.0

Message: Book got returned successfully!!!

SELECTED BOOK TITLE: The Catcher in the Rye

ENTER RETURN DATE: 30-06-2023

PROCEED

CAN BORROW RESERVED BOOKS IF AVAILABLE

The books reserved can be moved to the borrowing when the copy becomes available and the number of books borrowed is less than the maximum limit.

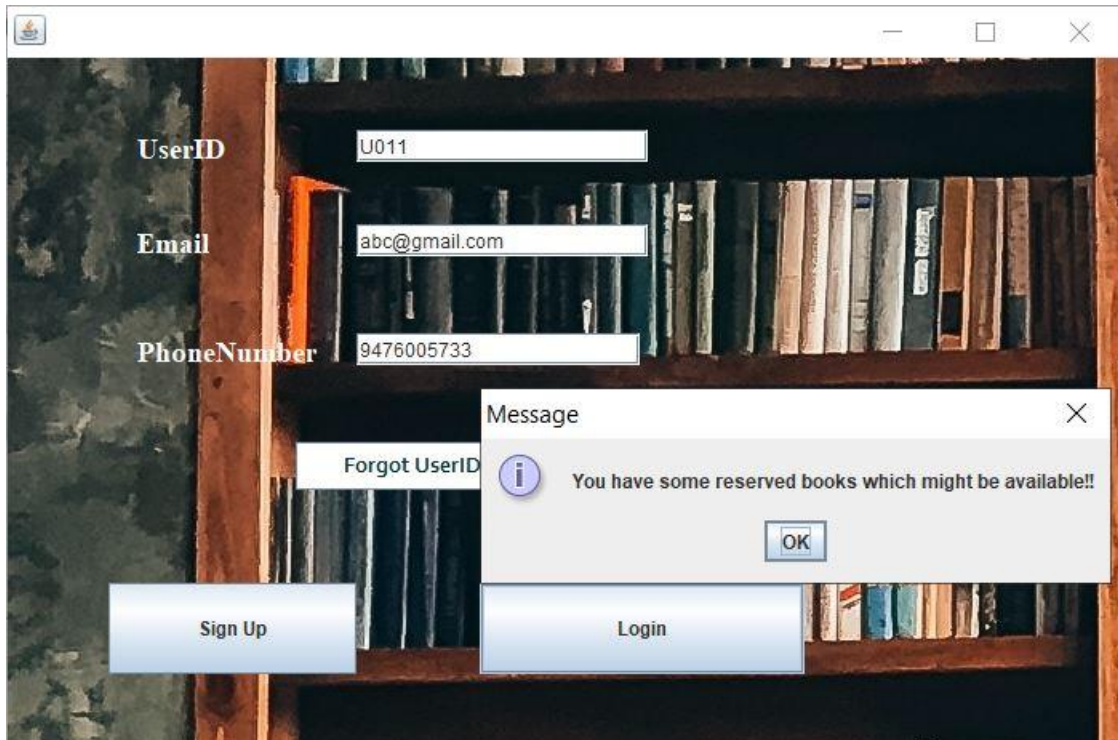
The screenshot displays a software interface for managing book reservations. At the top, there are two buttons: "DISPLAY" and "CLOSE". Below them is a table with the following data:

BOOKID	TITLE	RESERVATION DATE	QUANTITY
B016	The Fault in Our Stars	2023-07-08	14
B007	Harry Potter and the S...	2023-07-09	19
B019	The Maze Runner	2023-07-09	24

A message dialog box is open, displaying the text: "Book successfully added to your list!!!" with an "OK" button.

Below the table, there is a section labeled "SELECTED BOOK TITLE" with a text input field containing "The Maze Runner". At the bottom right, there is a pink button labeled "BORROW".

USER IS PROMPTED IF HE HAS LESS THAN 3 BORROWED BOOKS AND
ATLEAST 1 RESERVED BOOK



The screenshot shows a software application window with a light blue header and a light purple footer. In the center, there is a table with four columns: BOOKID, TITLE, RESERVATION DATE, and QUANTITY. Below the table, a message dialog box is displayed with the text 'Book successfully added to your list!!!' and an 'OK' button. At the bottom, there is a label 'SELECTED BOOK TITLE' followed by a text box containing 'The Fault in Our Stars' and a pink 'BORROW' button.

BOOKID	TITLE	RESERVATION DATE	QUANTITY
B016	The Fault in Our Stars	2023-07-08	14
B007	Harry Potter and the S...	2023-07-09	19

Message

Book successfully added to your list!!!

OK

SELECTED BOOK TITLE

The Fault in Our Stars

BORROW