LIBRARY MANAGEMENT SYSTEM

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Submitted By:

Zainab Idrees   2022-CS-199

Supervised By:

Dr. Awais Hassan

Department of Computer Science

University of Engineering and Technology

Lahore Pakistan

Contents

BRIEF DESCRIPTION OF THE LIBRARY MANAGEMENT SYSTEM

A Login and Sign-Up functionality is provided in this library management system. The system should ask the user to enter their credentials in order to use the features of the system. If the user does not exist, the system should display a proper message and ask the user to sign up instead. The system should only let a registered user access its functionalities. A menu that will provide access to the features of the Library Management System. Note that the system should only terminate when the user instructs to do so. Otherwise, after execution of each function the system should ask the user to return to the menu or execute the functionality again. The storage of Books. A book should have a title, ISBN number, author, date of publishing, quantity available in the library. The retrieval of books stored in the database by searching. For this purpose, the user can input the title of the book or ISBN number. Adding new books into the library database and deleting a book from the database. The database will in the form of text files on the local storage. Lending a book to a person. Returning an issued book to the library.

> Just add the link to Computer Science field here, what is the project's link to CS. I think 198 did that, you may ask them how did they do it.

USERS OF LIBRARY MANAGEMENT SYSTEM

- o   User (Students of any educational institution)

- o   Admin (The Librarian)

RECOMMENDATIONS

Harry Potter the Series: 234 reservations, 34 purchases
Peer-e-Kaamil: 123 reservations, 20 purchases

Reserve yours NOW!

> Just describe recommendations in text. What type of recommendation you are giving to the user.

FUNCTIONAL REQUIREMENTS

ADMIN

OK

As an	I want to perform	So that I can
Admin	Sign in	Manage the library system
Admin	Check	Look if a book has its requirements
Admin	Upload	Upload the books to the library for users
Admin	Delete	Delete the books that are no longer of use
Admin	Update	Provide the users the latest version of a book
Admin	Reserve	Save the books to recommend later to the users
Admin	Add	Add a new book to the library for the users
Admin	Recommend	Recommend different books to the users
Admin	Sell	Sell a particular book to the user
Admin	Lend	Give a book to the user for a particular time duration

OK

USER

User	Sign Up	Have an account on the library management Application
User	Sign In	To check my account
User	Check	Read the books needed for the work
User	Reserve	Save books to read them later
User	Purchase	Buy books for long term use
User	Recommend	Others can get aided buy the helpful books
User	Borrow	Read the books for in the given time by the admin
User	Request	Ask the admin to add a new book to the library
User	Pay	Pay for the fine if books are returned later than the given date
User	Question	Ask to update the latest version of the books

VALIDATIONS

make these bulleted points.
One point for each validation.

Any particular book should have the information such as book title, the ISBN number, author of the book, publishing date, and quantity available in the library. In case of Lending, we will have the information like issued Book, Date of issue, Date of return, name of the person to whom the book has been issued. The lending should be stored in their own file in their respective directories. For example, the lending should be stored in the Lending folder and the Books should be stored in the Books folder. When a book is issued to a person, you need to decrease the quantity of the books available in the library. If the quantity of a book has reached zero, you must not let the book be issued to a person. When a person returns a book, the system should ask the user if the person is returning the book late or not. If the person is returning the book after the time given for return, he must be fined.

SORTING

The books must be sorted according to their ISBN number or their respective prices in an ascending order, in this way, the users find it easy to find a particular book without looking through all the books in the library.

WIREFRAMES

```
  __| |_____| |__
 (__   _____   __)
   | |                                            | |
          _...-~~~~~-._  _.-~~~~~-...._
        //           `v'            \\
       //             |              \\
      //__...--~~~~~-._ | _.-~~~~~--...__\\
     //__.....--~~~~._\ | /_.~~~---....__\\
     ===================\\|//===================
                      `---`
  __| |_____| |__
 (__   _____   __)
   | |                                            | |
```
LIBRARY
MANAGEMENT
SYSTEM
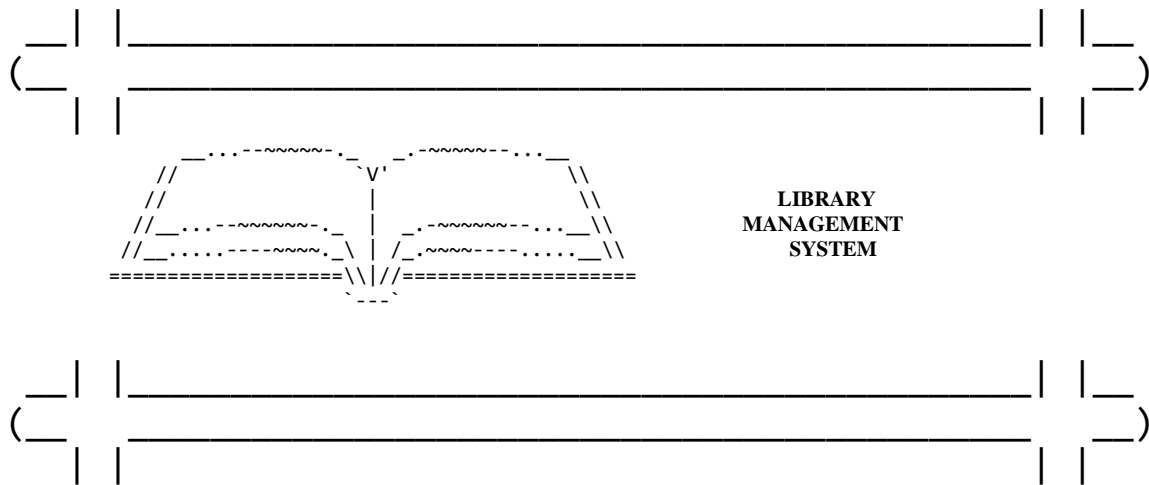
```
*********************************************************************************
*********************************************************************************

*                    Library Management System                         *
*        Press (1) to Log In.                                          *
*        Press (2) to Sign Up Right Now!                               *
*                                                                      *
*        Enter the Choice:                                             *
*                                                                      *
*********************************************************************************
*********************************************************************************
```

(4.1)   FIGURE 1: Start up Page

```
 __| |_____| |__
(__   _____   __)
   | |                                                            | |
        _...-~~~~~-._ `v' _.-~~~~~--...__
      //            |            \\
     //_...-~~~~~~-._  |  _.-~~~~~--...__\\
    //__.....----~~~~._\ | /_.~~~----.....__\\
    ===================\\|//===================
                       `---`
```
**LIBRARY
MANAGEMENT
SYSTEM**

```
 __| |_____| |__
(__   _____   __)
   | |                                                            | |
```
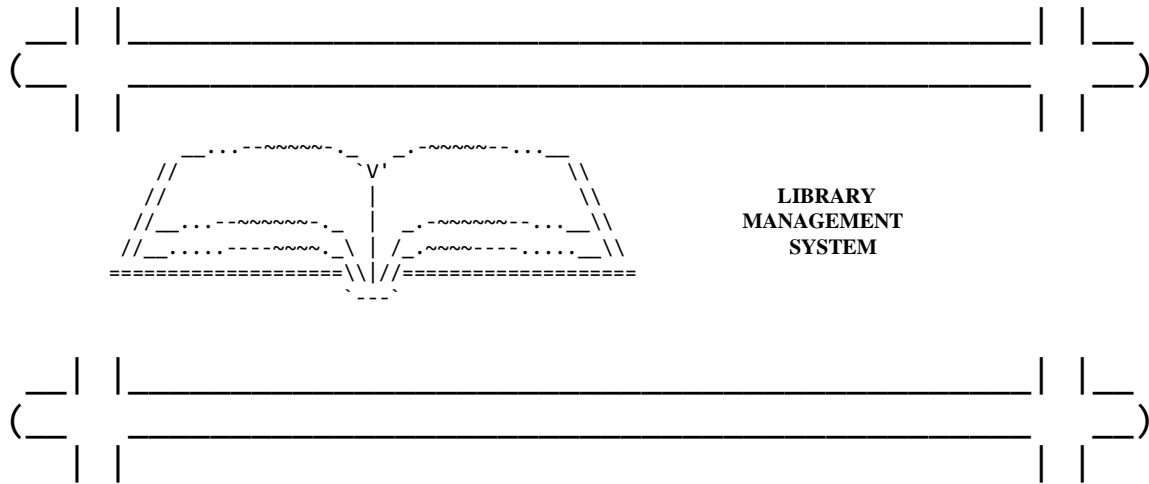
```
********************************************************************************
********************************************************************************

*                    Library Management System                              *

*        Enter the Choice: 1                                                 *

*        Enter your Username: Zainab_jjkk                                    *

*        Enter your Password: **********                                     *

*                                                                            *

********************************************************************************
********************************************************************************
```

(4.2)   FIGURE 2: Login Page

```
 __| |_____| |__
(__   _____   __)
   | |                                                   | |
         _...-~~~~~-._    _.-~~~~~--...__
      //_        `v'     \\
      //            |           \\        LIBRARY
     //__...-~~~~~-._   |   _.-~~~~~--...__\\   MANAGEMENT
     //__.......---~~~._\ | /_.~~~---......__\\   SYSTEM
     ===================\\|//===================
                         `---`
 __| |_____| |__
(__   _____   __)
   | |                                                   | |
```

```
**********************************************************************************
**********************************************************************************
*                    Library Management System                                   *
*          Enter the Choice: 2                                                    *
*          Enter your Email: zainabjjks@gmail.com                                 *
*          Enter your Username: Zainab_jjkk                                       *
*          Enter your Password: **********                                        *
*          Confirm Password: **********                                           *
**********************************************************************************
**********************************************************************************
```

(4.3)   FIGURE 3: Sign up Page

```
  __| |_____| |__
(__   _____   __)
   | |                                           | |
        __...--~~~~~-._   _.-~~~~~--...__
      //               `V'               \\
     //                 |                  \\
    //__...---~~~~~-._   |   _.-~~~~~---...__\\      LIBRARY
   //__.....----~~~~._\ | /_.~~~~----.....__\\    MANAGEMENT
   ===================\\|//===================       SYSTEM
                      `---`
  __| |_____| |__
(__   _____   __)
   | |                                           | |
```

```
*****************************************************************************
*****************************************************************************
*          *        *                                    *      *          *
*                 *    *    *                          *    *    *          *
*               *    *    *           LIBRARY          *    *    *          *
*                 *    *    *       MANAGEMENT         *    *    *          *
*                    *    *           SYSTEM           *    *              *
*                      **                              **                  *
*                        *                              *                  *
*                                                                         *
*****************************************************************************
*****************************************************************************
```

(4.4)   FIGURE 4: Home Page

```
 __| |_____| |__
(__   _____   __)
  | |                                                | |
        _...-~~~~~-._  `v'  _.-~~~~~-...-_
      //            `|'            \\
      //              |              \\
     //__...--~~~~~-._ | _.-~~~~~-...-__\\
    //__.....--~~~~._\ | /_.~~~---....__\\
    ==================\\|//==================
                      `---`
```
                                    LIBRARY
                                  MANAGEMENT
                                    SYSTEM

```
 __| |_____| |__
(__   _____   __)
  | |                                                | |
```
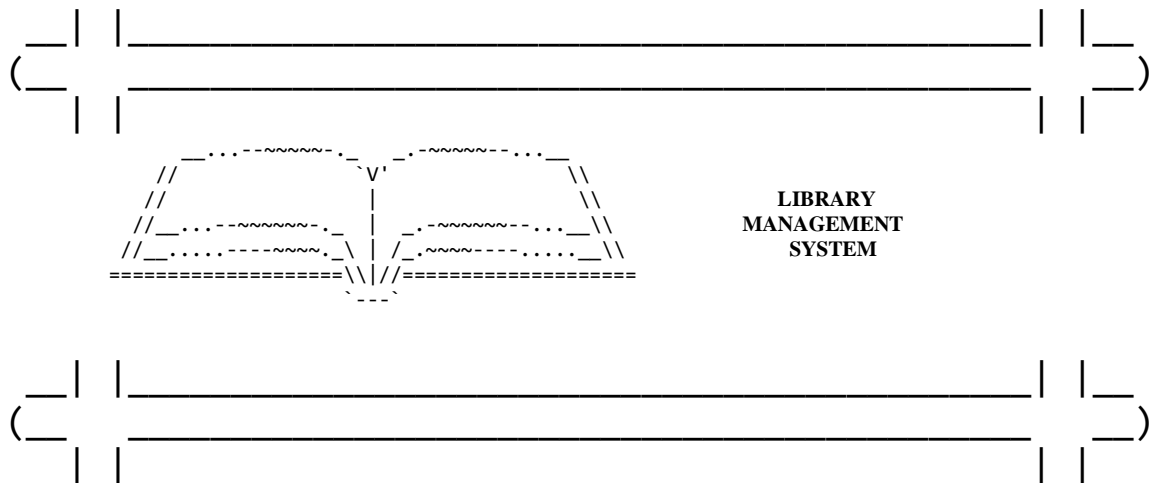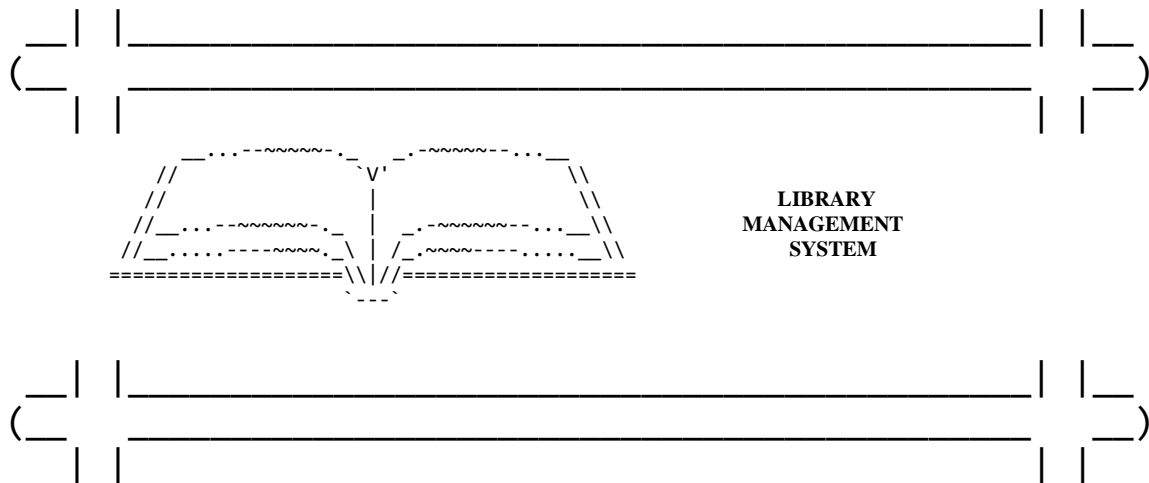
```
***************************************************************************
***************************************************************************
*                      Library Management System                         *
*    1.  View list of Books                                              *
*    2.   Add a Book                                                      *
*    3.  Update a Book                                                    *
*    4.  Delete a Book                                                    *
*    5.  Reserve a Book                                                   *
*    6.  Purchase a Book                                                  *
*    7.  Log Out                                                         *
*                                                                        *
*     Enter Your choice:                                                 *
***************************************************************************
***************************************************************************
```
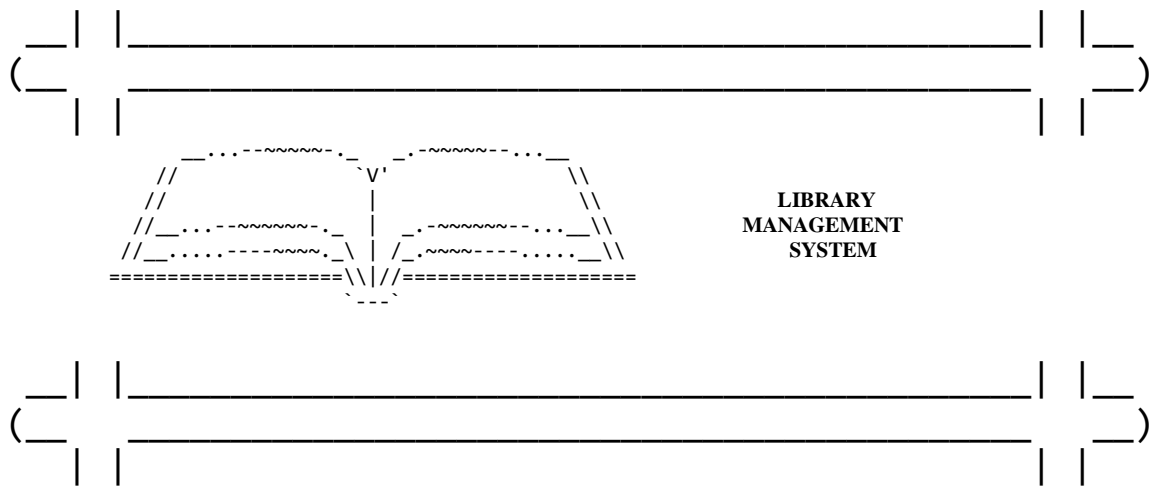
(4.5)   FIGURE 5: Main Menu Page

```
  __| |_____| |__
 (__       _____       __)
   | |                                           | |
        _...-~~~~-._    _.-~~~~-...__
       //          `v'          \\
      //            |            \\
     //__...-~~~~~-._  |  _.-~~~~~-...__\\
    //__.....---~~~.._\ | /_.~~~---.....__\\
   ===================\\|//===================
                      `---`
```

LIBRARY MANAGEMENT SYSTEM

```
  __| |_____| |__
 (__       _____       __)
   | |                                           | |
```
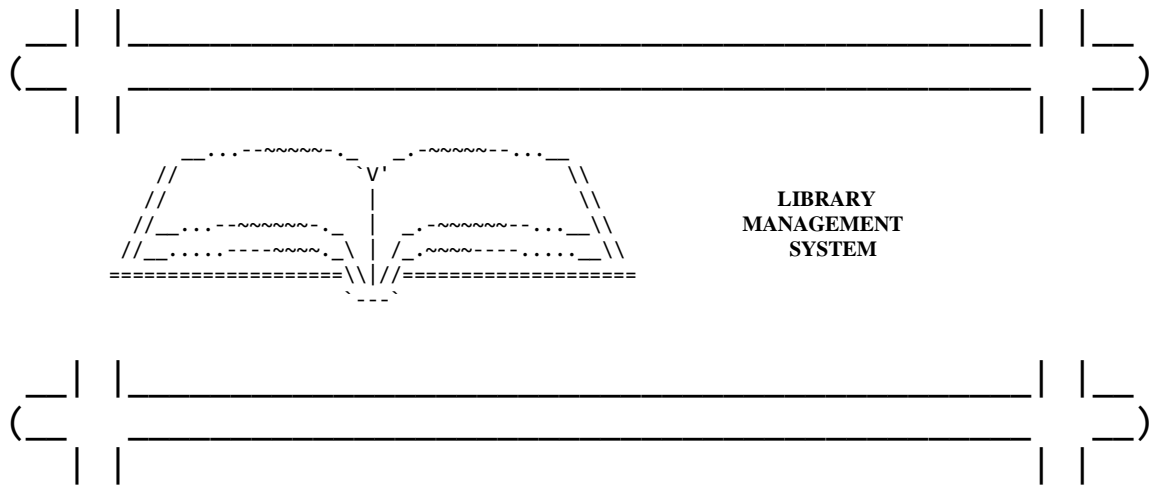
```
*******************************************************************************
*******************************************************************************
*                    Library Management System                               *
*       Enter Your choice:  1                                                *
*                  !!!!!! WELCOME TO THE LIBRARY!!!!!!                        *
*       The Following is the list of the Books present in our library:       *
*       1.  The Alchemist                                                    *
*       2. The Red Pot                                                       *
*       3. Peer – e – Kaamil                                                 *
*       4. Jannat k Pattay                                                   *
*       5. Harry Potter the Series                                          *
*       6. Forty Rules of Love                                               *
*                                                                            *
*******************************************************************************
*******************************************************************************
```

(4.6)   FIGURE 6: Book's list Page

```
 __| |_____| |__
(__   _____   __)
   | |                                           | |
         _...--~~~~~-._ _.-~~~~~--..._
       //            `v'            \\
      //             |              \\
     //__...--~~~~~-._ | _.-~~~~~--..._\\
    //__.....--~~~~._\ | /_.~~~--...._..__\\
    ===================\\|//===================
                       `---'
```

LIBRARY
MANAGEMENT
SYSTEM
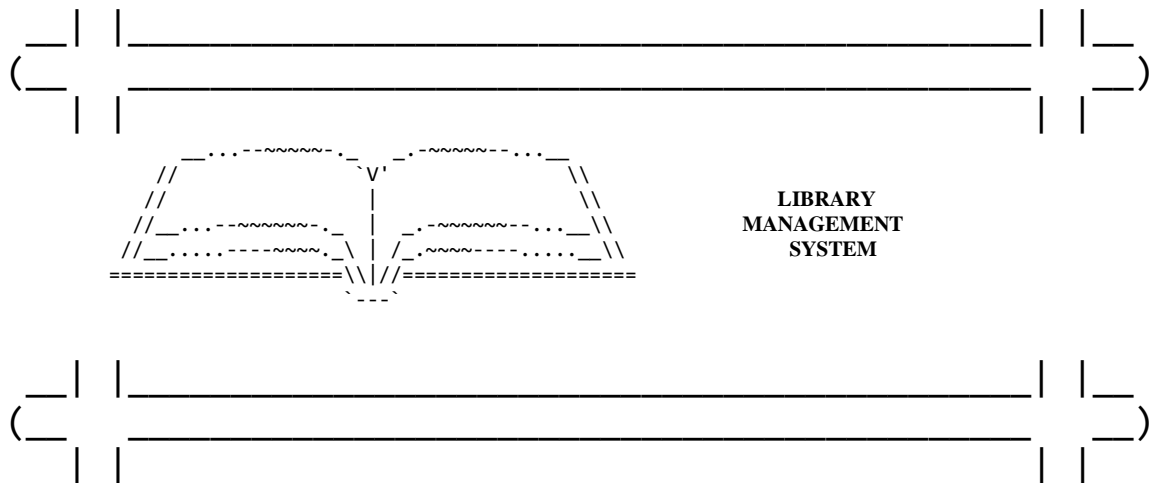
```
*****************************************************************************
*****************************************************************************
*                  Library Management System                               *
*      Enter Your choice:  2                                               *
*                                                                          *
*      Add a Book : The Silent Killer                                      *
*                                                                          *
*      A new book has been added to the library!                          *
*                                                                          *
*                                                                          *
*****************************************************************************
*****************************************************************************
```

(4.7)   FIGURE 7: Book Addition Page

```
 __| |_____| |__
(__   _____   __)
   | |                                                          | |
          _...--~~~~~-._    _.-~~~~~--...__
        //              `V'              \\
       //                |                \\                LIBRARY
      //__...--~~~~~~-._  |  _.-~~~~~~--...__\\          MANAGEMENT
     //__.....----~~~~._\ | /_.~~~----.....__\\             SYSTEM
     ===================\\|//===================
                        `---`
 __| |_____| |__
(__   _____   __)
   | |                                                          | |
```

```
**************************************************************************
**************************************************************************
*                 Library Management System                              *
*       Enter Your choice:  3                                            *
*                                                                        *
*       Update an already present Book : Harry Potter the Series         *
*       Enter the ISBN number of the book to be updated : 987-2-23-332343-0 *
*       Enter the author of the book to be updated:  Jk Rowling          *
*                                                                        *
*       Harry Potter the series By Jk Rowling has been updated to the latest version! *
**************************************************************************
**************************************************************************
```

(4.8)   FIGURE 8: Book Update Page

```
 __| |_____| |__
(__   _____   __)
   | |                                                 | |
         _...--~~~~~._    _.-~~~~~--..._
       //          `v'          \\              LIBRARY
      //            |            \\          MANAGEMENT
     //__...--~~~~~._  |  _.-~~~~~--...__\\        SYSTEM
    //__.....---~~~._\ | /_.~~~---.....__\\
   ==================\\|//==================
                      `---`
 __| |_____| |__
(__   _____   __)
   | |                                                 | |
```

```
****************************************************************************
****************************************************************************
*                     Library Management System                           *
*        Enter Your choice:  4                                            *
*                                                                          *
*        Delete a present Book from the Library: The Red Pot               *
*        Enter the ISBN number of the book to be deleted : 937-2-13-332343-0 *
*        Enter the author of the book to be deleted:  Paulo Coelho         *
*                                                                          *
*                                                                          *
*        The Red Pot By Paulo Coelho has been deleted from the library!    *
****************************************************************************
****************************************************************************
```
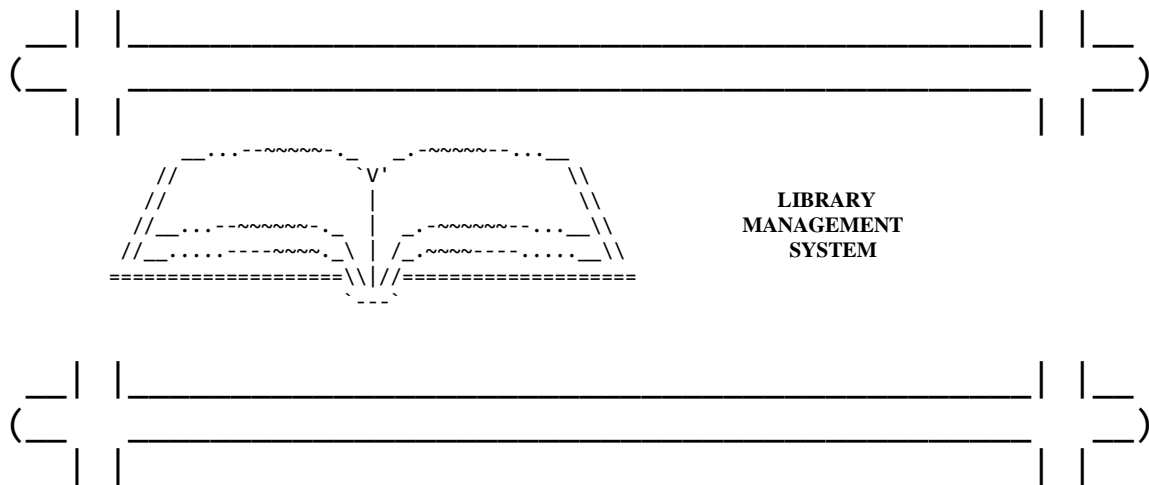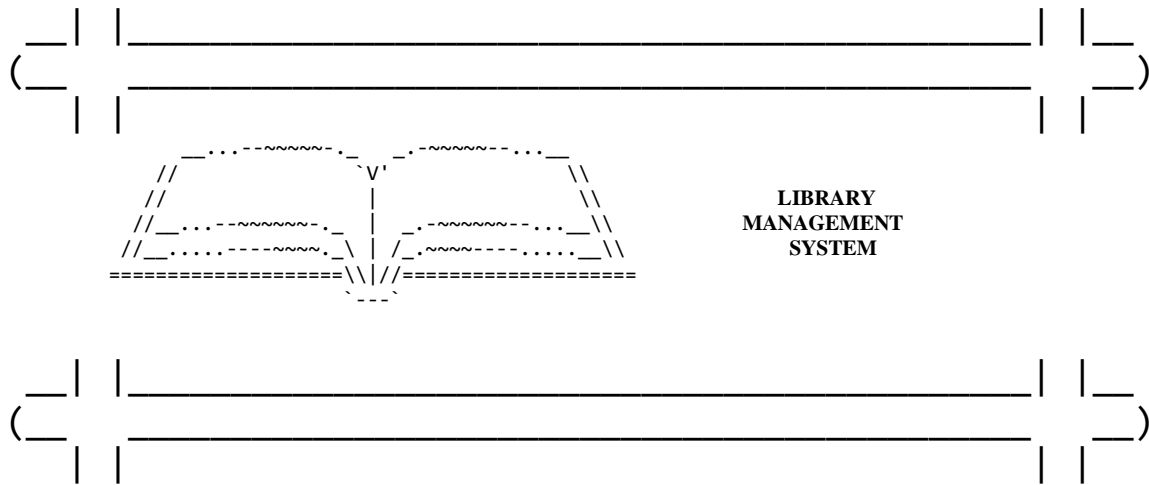
(4.9)   FIGURE 9: Book Delete Page

Library Management System

```
  __| |_____| |__
 (__   _____   __)
    | |                                                      | |
            __...-~~~~-._  _.-~~~~-...__
          //           `'v'`           \\
          //             |              \\
         //__...---~~~~~-._  |  _.-~~~~~-...__\\         LIBRARY
         //__.....----~~~~._\ | /_.~~~~----.....__\\    MANAGEMENT
         ====================\\|//====================   SYSTEM
                            `---`
  __| |_____| |__
 (__   _____   __)
    | |                                                      | |
```

```
***************************************************************************
***************************************************************************
*                    Library Management System                           *
*      Enter Your choice:  5                                             *
*                                                                        *
*      Reserve a Book from the Library: Peer - e - Kaamil                *
*      Enter the ISBN number of the book to be Reserved : 237-2-19-372343-1 *
*                                                                        *
*      Enter the author of the book to be Reserved:  Umaira Ahmed        *
*      Enter the name of the person reserving the book: Zainab           *
*                                                                        *
*         Date of Issue: 20-03-2023                                      *
*         Date of Return : 04-04-2023                                    *
*      Peer – e - Kaamil By Umaira Ahmed has been reserved!              *
***************************************************************************
***************************************************************************
```
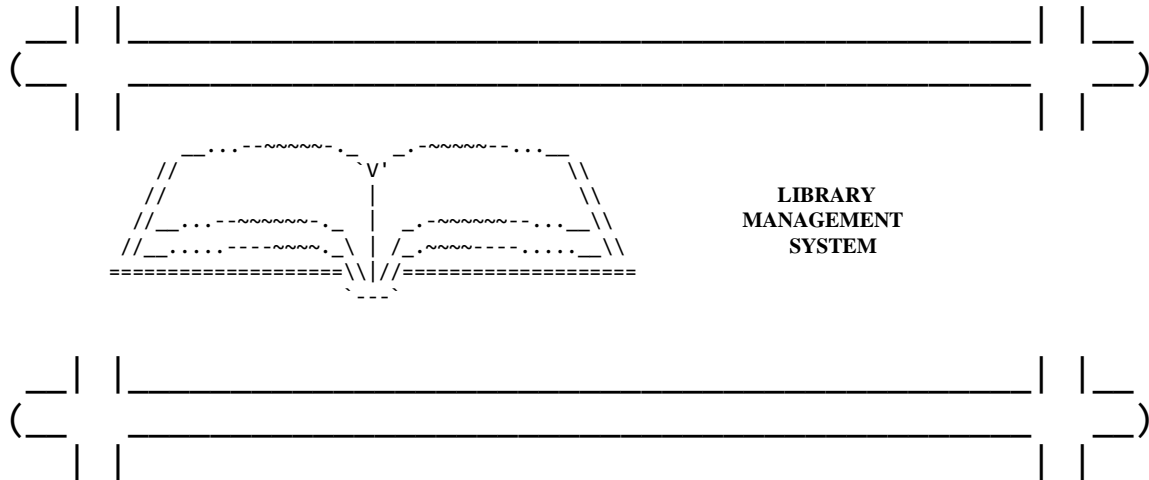
(4.10)   FIGURE 10: Book Reservation Page

Library Management System

```
    __| |_____| |__
   (__   _____   __)
      | |                                              | |
              __...-~~~~-._  _.-~~~~-...__
             //            `.v.'            \\
            //              |                \\
           //__...--~~~~~-._ | _.-~~~~~--...__\\        LIBRARY
          //__.....----~~~~._\ | /_.~~~~----.....__\\   MANAGEMENT
          ===================\\|//===================   SYSTEM
                           `---`

    __| |_____| |__
   (__   _____   __)
      | |                                              | |
```

```
********************************************************************************
********************************************************************************
*                    Library Management System                                 *
*      Enter Your choice:  6                                                    *
*                                                                              *
*      Purchase a Book from the Library: The Alchemist                          *
*      Enter the ISBN number of the book to be Purchased : 137-7-49-292343-3    *
*                                                                              *
*      Enter the author of the book to be Purchased: Paulo Coelho               *
*      Enter the name of the person purchasing the book: Zainab                 *
*                                                                              *
*         Date of Purchase: 20-03-2023                                          *
*                                                                              *
*         Price : $250                                                          *
*      The Alchemist By Paulo Coelho has been purchased!                        *
********************************************************************************
********************************************************************************
```
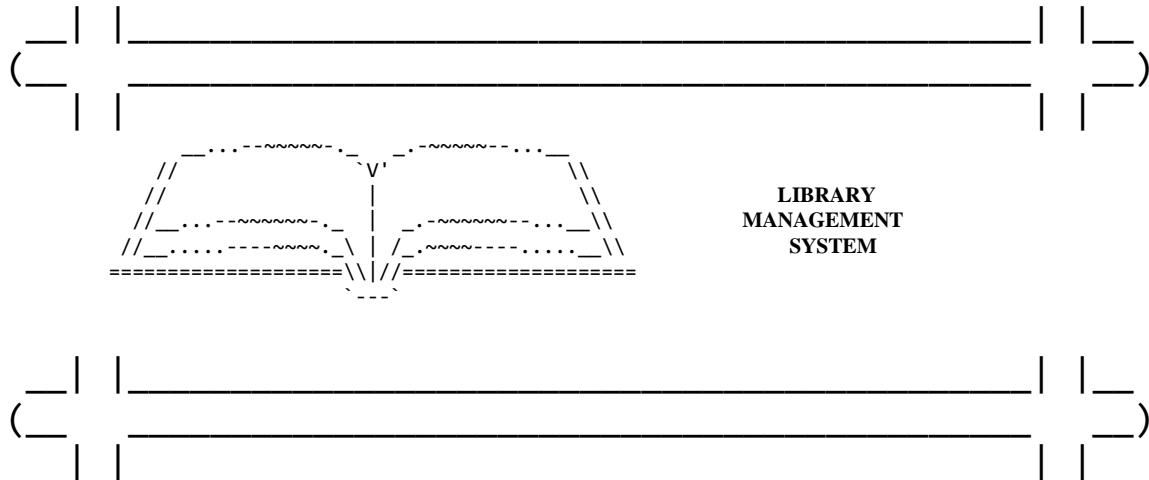
(4.11)   FIGURE 11: Book Purchase Page

```
 __| |_____| |__
(__   _____   __)
  | |                                           | |
        __...--~~~~~-._   _.-~~~~~--...__
      //     _...--~~~~~-._   `V'   _.-~~~~~--...__     \\
     //    //__...--~~~~~-._ |  _.-~~~~~--...__     \\
    //__.....---~~~~._\ | /_.~~~~---.....__\\
    ===================\\|//===================
                      `---`
```
                                              LIBRARY
                                            MANAGEMENT
                                              SYSTEM

```
 __| |_____| |__
(__   _____   __)
  | |                                           | |
```
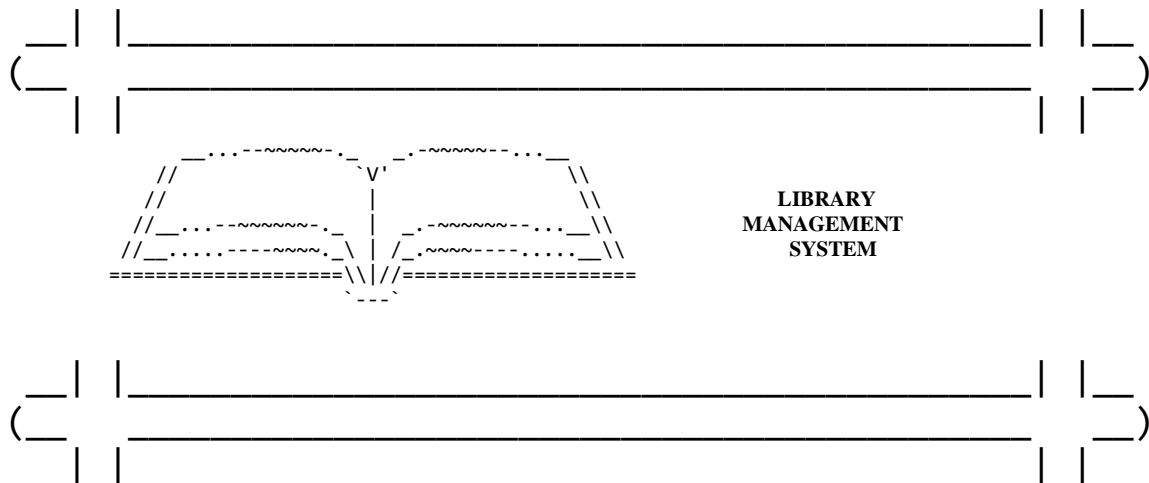
```
***************************************************************************
***************************************************************************
*                    Library Management System                           *
*        Enter the Choice: 7                                             *
*        Leaving us too soon! Are you sure you want to Log Out?          *
*        Press (1) for "Yes"                                             *
*        Press (2) for "No"                                              *
*                                                                        *
***************************************************************************
***************************************************************************
```

(4.12)   FIGURE 12: Log Out surety Page

```
  __| |_____| |__
(__   _____   __)
  | |                                            | |
          _...--~~~~-._  `V'  _.-~~~~--..._
       //                |                \\        LIBRARY
      //__...--~~~~~-._   |   _.-~~~~~--...__\\   MANAGEMENT
     //__.....---~~~._\ | /_.~~~---.....__\\       SYSTEM
     ===================\\|//===================
                        `---`

  __| |_____| |__
(__   _____   __)
  | |                                            | |
```

```
********************************************************************************
********************************************************************************
*                    Library Management System                         *
*          Enter the Choice: 1                                         *
*                                                                      *
*              YOU HAVE BEEN LOGGED OUT OF YOUR ACCOUNT!                *
*                                                                      *
*                                                                      *
********************************************************************************
********************************************************************************
```
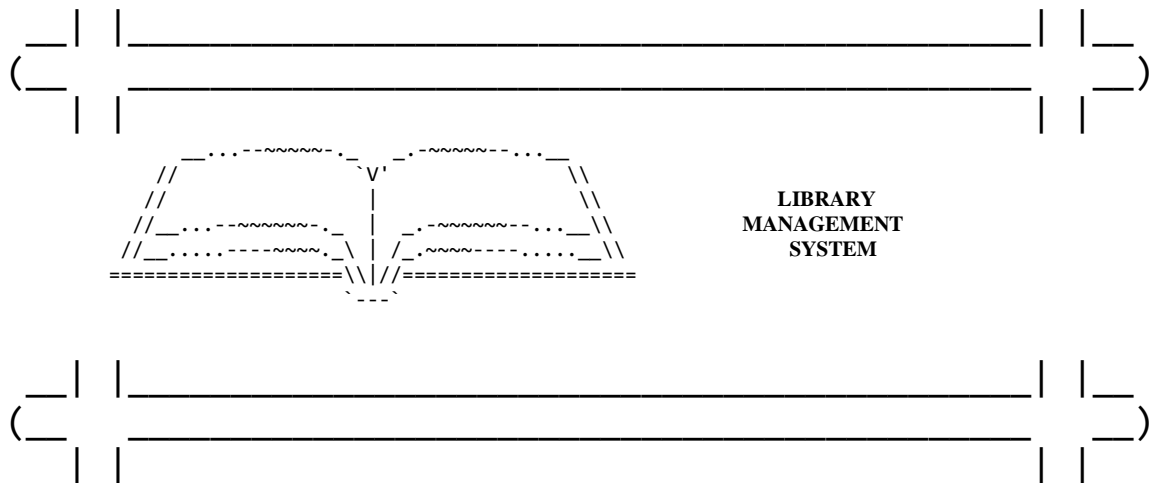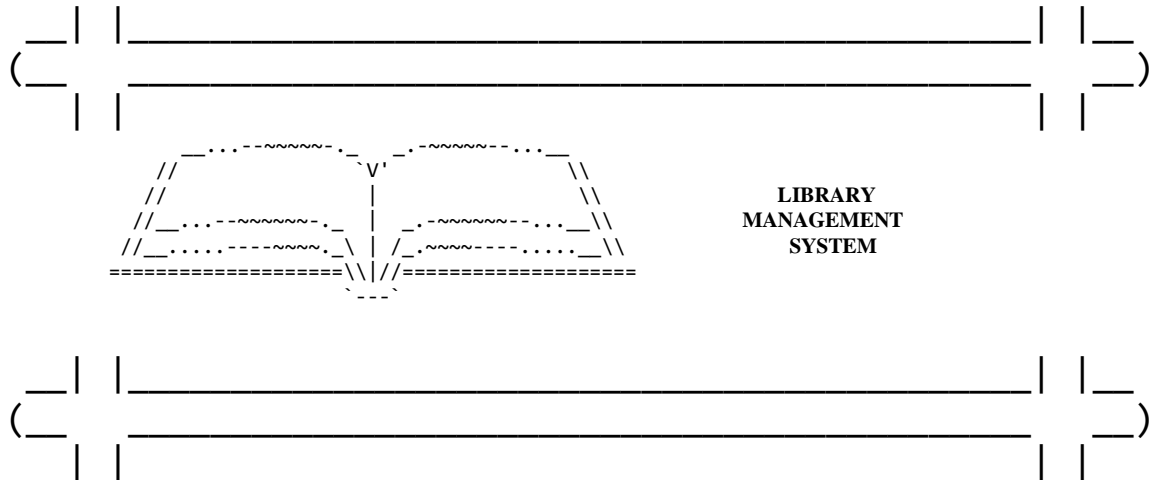
(4.13)   FIGURE 13: Log Out Page

Library Management System

```
  __| |_____| |__
 (__   _____   __)
    | |                                                        | |
          __...-~~~~~-._  _.-~~~~~--...__
         //               `'v'´               \\
         //                 |                  \\             LIBRARY
        //__...--~~~~~-._   |   _.-~~~~~--...__\\          MANAGEMENT
       //__.....----~~~._\ | /_.~~~----.....__\\             SYSTEM
       ===================\\|//===================
                          `---'

  __| |_____| |__
 (__   _____   __)
    | |                                                        | |
```

```
*****************************************************************************
*****************************************************************************

*                       Library Management System                          *
*          Enter the Choice: 2                                              *
*                                                                           *
*                      THANKS FOR STAYING WITH US!                          *
*                                                                           *
*    1.  View list of Books                                                 *
*    2.   Add a Book                                                        *
*    3.  Update a Book                                                      *
*    4.  Delete a Book                                                      *
*    5.  Reserve a Book                                                     *
*    6.  Purchase a Book                                                    *
*    7.  Log Out                                                            *
*                                                                           *
*     Enter Your choice:                                                    *
*                                                                           *

*****************************************************************************
*****************************************************************************
```

(4.14)   FIGURE 14: Back to Main Menu Page

Library Management System

Library Management System