**PROJECT: LIBRARY MANAGEMENT SYSTEM**

DESCRIPTION

Library Management System is a system for librarians to keep track of their books in the library. This system allows the admin to manage user accounts and the librarian to manage books in the system. Admin can add, edit, delete, search, view all users and sorting features. Librarians can add, edit, delete, search, view all books and sorting features.

APP MODULES AND FEATURES

1. USER MANAGEMENT

* Admin can add user accounts to the system
* Admin can edit user accounts from the system
* Admin can delete user accounts from the system
* Admin can search user accounts from the system for details
* Admin can view all user accounts from the system
* Admin can use sorting features (Admins first or Librarians first)

1. BOOK MANAGEMENT

* Librarian can add books to the system
* Librarian can edit books from the system
* Librarian can delete books from the system
* Librarian can search books from the system for details
* Librarian can view all books from the system
* Librarian can use sorting features (A-Z or Z-A)

UI DESIGN

1. Account Authentication:

**LIBRARY MANAGEMENT SYSTEM**

**[1] LOGIN**

**[0] CLOSE**

**Users just need to press keys from their keyboards to proceed forward; they don’t need to input their option number and press enter.**

1.1. Login Account

**LOGIN**

**Username: Admin**

**Password: Admin**

* **There are 2 types of accounts which are admin and librarian. Admin have access to user account management. Librarians have access to book management.**

1.3. Close

**This option will close the program immediately.**

**After user successfully log in to their account they will be greeted with this menu:**

1.1.2.For admin account

**ADMIN**

**[1] ADD USER**

**[2] EDIT USER**

**[3] DELETE USER**

**[4] SEARCH USER**

**[5] SORT ALL USERS**

**[5] VIEW ALL USERS**

**[6] SAVE ALL USERS TO FILE**

**[7] LOAD ALL USERS FROM FILE**

**[0] LOGOUT**

1.1.2.1.1. If users choose option [1]

**ADD USER**

**Username: Librarian**

**Password: Librarian**

**Role: Librarian**

**After users input their desired username, password and role then they will be greeted with input validation and input confirmation.**

1.1.2.1.2. If user choose option [2]

**EDIT USER ACCOUNT**

**Search Username: Librarian**

**If the username is not in the system then there will be a message telling users that it is an invalid user account.**

**Then:**

**Current username: Librarian**

**Current password: Librarian**

**Current role: Librarian**

**Are you sure you wanted to edit this user?**

**[Y] Yes**

**[N] No**

**Then:**

**New Username: Librarian2**

**New Password: Librarian2**

**New Role: Librarian**

**Are you sure you wanted to edit this user?**

**[Y] Yes**

**[N] No**

**Then:**

**You have successfully edited an user account from the system.**

1.1.2.1.3. If user choose option [3]

**DELETE USER**

**Search Username: Librarian**

**If the username is not in the system then there will be a message telling users that it is an invalid user account.**

**Then:**

**Username: Librarian**

**Password: Librarian**

**Role: Librarian**

**Are you sure you wanted to delete this user?**

**[Y] Yes**

**[N] No**

**Then:**

**You have successfully deleted an user account from the system.**

1.1.2.1.4. If user choose option [4]

**SEARCH USER ACCOUNT**

**Search Username: Librarian**

**If the username is not in the system then there will be a message telling users that it is an invalid user account.**

**Then:**

**Current username: Librarian**

**Current password: Librarian**

**Current role: Librarian**

1.1.2.1.5. If user choose option [5]

**SORT ALL USERS**

**[1] Admins first**

**[2] Librarians first**

1.1.2.1.6. If user choose option [6]

**VIEW ALL USERS**

**# Username Password Role**

**1 admin admin admin**

**2 librarian librarian librarian**

1.1.2.1.7. If user choose option [7]

**All user accounts data will be saved to a binary file.**

1.1.2.1.8. If user choose option [8]

**All user accounts data will be loaded from a binary file.**

1.1.2.2. If user choose option [0]

**They will be logged out of the account and go back to the first menu of the system.**

1.1.3.For librarian account

**LIBRARIAN**

**[1] ADD BOOK**

**[2] EDIT BOOK**

**[3] DELETE BOOK**

**[4] SEARCH BOOK**

**[5] SORT ALL BOOKS**

**[6] VIEW ALL BOOKS**

**[7] SAVE ALL BOOKS TO FILE**

**[8] LOAD ALL BOOKS FROM FILE**

**[0] LOGOUT**

1.1.3.1.1. If users choose option [1]

**ADD BOOK**

**What type of book?**

**[1] Local book**

**[2] International book**

**[0] Cancel**

**Then:**

**ADD INTERNATIONAL BOOK**

**New book name: Book A**

**New book author: Mr. A**

**New book language: English**

**You have successfully added a book!!**

1.1.3.1.2. If user choose option [2]

**EDIT BOOK**

**Search Name: Book A**

**If the book is not in the system then there will be a message telling users that it is an invalid book.**

**Then:**

**Current book name: Book A**

**Current book author: Mr. A**

**Current book language: English**

**Are you sure you wanted to edit this book?**

**[Y] Yes**

**[N] No**

**Then:**

**New book name: Book B**

**New book author: Mr. B**

**New book language: English**

**Then:**

**You have successfully edited a book from the system.**

1.1.3.1.3. If user choose option [3]

**DELETE BOOK**

**Search Name: Book A**

**If the book is not in the system then there will be a message telling users that it is an invalid book.**

**Then:**

**Current book name: Book A**

**Current book author: Mr. A**

**Current book language: English**

**Are you sure you wanted to delete this book?**

**[Y] Yes**

**[N] No**

**Then:**

**You have successfully deleted a book from the system.**

1.1.3.1.4. If user choose option [4]

**SEARCH BOOK**

**Search book name: Book A**

**If the book is not in the system then there will be a message telling users that it is an invalid book.**

**Then:**

**Current book name: Book A**

**Current book author: Mr. A**

**Current book language: English**

1.1.3.1.5. If user choose option [5]

**SORT ALL BOOKS**

**[1] A-Z  
 [2] Z-A**

1.1.3.1.5. If user choose option [6]

**VIEW ALL BOOKS**

**# Name Author Language**

**1 Book A Mr. A Khmer**

**2 Book B Mr. B English**

1.1.3.1.6. If user choose option [7]

**All books data will be saved to a binary file.**

1.1.3.1.7. If user choose option [8]

**All books data will be loaded from a binary file.**

1.1.3.2. If user choose option [0]

**They will be logged out of the account and go back to the first menu of the system.**

**THANK YOU**