Library Management Program Tool

Project Requirements

Version 8

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Revision History

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| Revision Number | Date | Description | Author |
| 1 | 15 Jan 2022 | Initial suggestion of basic Plan; Front-End having a GUI Menu, Back-End using a database | Jason Martin |
| 2 | 16 Jan 2022 | Initial Draft of Project Outline including all previously mentioned details | Ursula Richardson |
| 3 | 17 Jan 2022 | Added requirements to the initial outline | John Kucera |
| 4 | 20 Jan 2022 | Creation of this document. Added Cover Page and Revision History. Created Initial requirement list | Ursula Richardson |
| 5 | 21 Jan 2022 | Added to Requirement List, Updated Paragraph, Added distinction between “Users” and “Admins”, Centered Numbers in Requirement List | Jason Martin |
| 6 | 22 Jan 2022 | Updated requirements description, changed some wording for LMP actions to show where they will be done (in main menu, in browsing, in admin settings, etc). Added some requirements: not allowing duplicate usernames, allowing admins to clear user fines, allowing admins to remove books. | John Kucera |
| 7 | 23 Jan 2022 | Reviewed for submission. Prepared document for submission by deleting groups comments and correcting grammatical errors. | Ursula Richardson |
| 8 | 27 Feb 2022 | Removed requirements that we are no longer planning to include, such as any function that manages fines. | John Kucera |

# PROJECT REQUIREMENT

**Topic**

Group 1’s project is to create a **Library Management Program tool**. It will maintain a book database, a checked-out books database, and a user database. The tool will help library staff and members keep track of library inventory, book information, check-out information, and user information. Users of this tool will be either Library Admins (librarians, other library employees) and Library Members (customers/borrowers), with Admins having access to “Admin Settings”. The tool’s interface will be a GUI that starts with a login dialog prompting for user authentication, which leads to a menu bar containing options such as:

* Browse Books >
  + Search by title/author
  + Show Book Info
  + Check Out Book
* View Checked-out Books >
  + Return Book
* Change Password
* (Admin Settings) Add Book
* (Admin Settings) List Books
* (Admin Settings) Add User
* (Admin Settings) List Users
* Log out

More detailed information on requirement specifications is in the “Project Requirements” document.

# Requirements

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| **Requirement #** | **Description** |
| 1 | This Library Management Program (LMP) shall require authentication for users on a Login dialog when they first access the GUI. Username and Password will be required. After successful authentication, the program proceeds to the GUI with a main menu bar and admin settings menu bar. |
| 2 | This LMP, in the main menu bar, shall allow the user to Browse All Books in library. |
| 3 | This LMP, upon Browsing, shall allow the user to search for a book by typing title or author. |
| 4 | This LMP, upon book selection and clicking “Show Book Info” button by a user, shall display book information, including title, author, ISBN, total quantity, and quantity available. |
| 5 | This LMP, upon book selection by a user, shall NOT allow the user to check out a book that is currently unavailable. |
| 6 | This LMP, upon book selection by a user, shall allow the user to click “Check Out” Button to check out a book that is available. |
| 7 | This LMP, upon allowing user to check out a book, shall record the check-out in the checked-books database. |
| 8 | This LMP, in the main menu bar, shall allow the user to view their Checked-out books and allow them to select a book and return it. |
| 9 | This LMP, upon allowing a user to return a book, shall record the return in the books and checked-books database and update the quantity available in book info. |
| 10 | This LMP, in the main menu bar, shall allow users to change their password. Users must provide their old password first. |
| 11 | This LMP, in the main menu bar, shall allow users to log out. Upon logging out, the GUI will return to the Login dialog. |
| 12 | This LMP shall designate users as either Members or Admins. Library Members will be the borrowers/customers. Admins will be the library Staff and will have access to both the Members options plus the ability to click “Admin Settings” menu bar. |
| 13 | This LMP shall NOT allow Library Members to have access to “Admin Settings”. The “Admin Settings” menu bar will be disabled for Members. |
| 14 | This LMP, in Admin Settings, shall allow admins to add users. |
| 15 | This LMP, upon user addition by an Admin, shall prompt for the new user’s username, full name, password, and if they will be a Member or an Admin. |
| 16 | This LMP, in Admin Settings, shall allow admins to view a list of all users. This list will display all user’s fines and if they are a Member or an Admin. |
| 17 | This LMP, upon displaying the list of users, shall allow admins to remove a user. |
| 18 | This LMP, in Admin Settings, shall allow admins to add a book into the library database and will provide a form for admins to fill out book information. The form will prompt for: title, author, ISBN, total quantity, and quantity available. |
| 19 | This LMP, in Admin Settings, shall allow admins to list all books in the library. |
| 20 | This LMP, upon listing all books in the library and selection by a user, shall allow admins to remove a book from the book database. |
| 21 | This LMP, upon listing all books in the library and selection by a user, shall allow admins to edit a book’s information. |