



- USER GUIDE -

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❖ User Login

The user login window is shown when the application is executed. The user is requested to select a user type, enter username and password to log in and access the application. The user types are explained below.

Member

- A member is not requested to enter username or password.
- A member can only access the CheckIn and BookFinder windows.

Librarian

- A librarian, with valid username and password can only access the windows which help to manage members, manage books, and to lend and receive books.

Administrator

- An Administrator can access all windows, can view transaction, member log details, and statistics, edit preferences and manage user accounts.

Default Accounts	Administrator	Librarian	Database
Username	admin	lib	--
Password	pwd123	pwd456	masterpwd

Username and passwords to use when testing

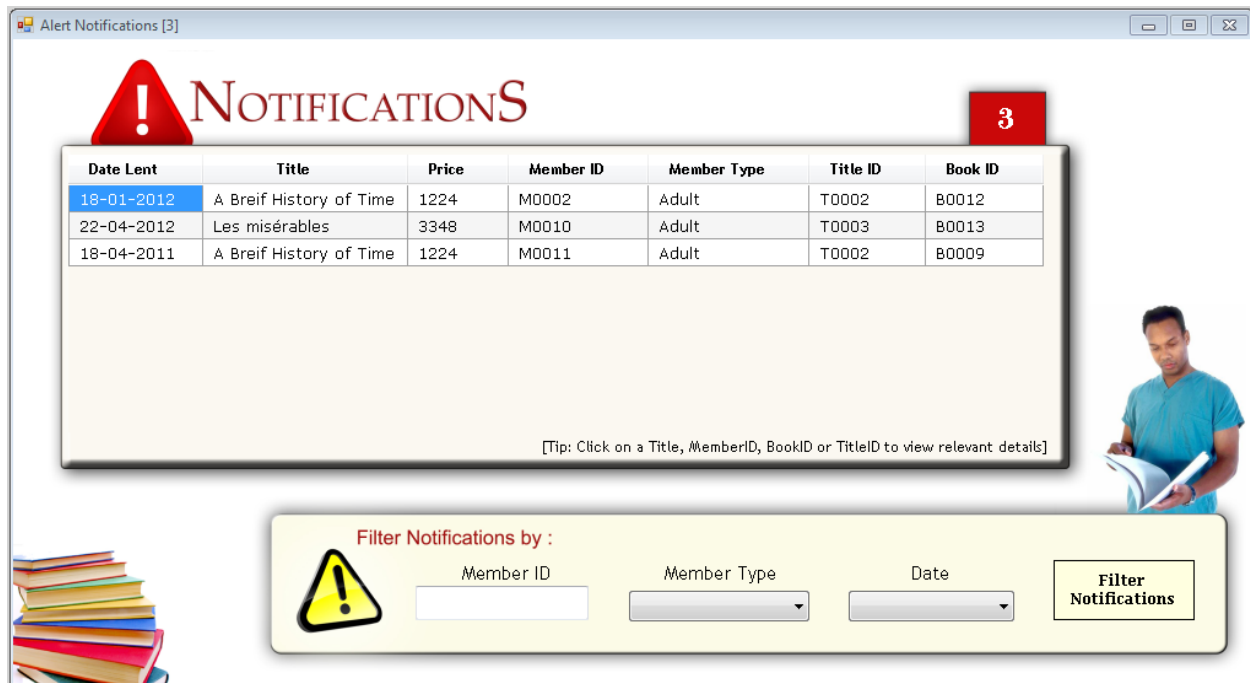
Multiple user accounts can be created, maintained and removed under each Administrator and Librarian types in the Preferences window (see pg. 13) by an administrator type user. Passwords for each account can also be changed there.



Window shown when a Librarian Logs in

❖ Alert Notifications

Notifications window showing 3 notifications



The screenshot shows a window titled "Alert Notifications [3]". It features a red warning triangle icon and the word "NOTIFICATIONS" in large red letters. A red badge with the number "3" is in the top right corner. Below this is a table with the following data:

Date Lent	Title	Price	Member ID	Member Type	Title ID	Book ID
18-01-2012	A Breif History of Time	1224	M0002	Adult	T0002	B0012
22-04-2012	Les misérables	3348	M0010	Adult	T0003	B0013
18-04-2011	A Breif History of Time	1224	M0011	Adult	T0002	B0009

Below the table is a tip: "[Tip: Click on a Title, MemberID, BookID or TitleID to view relevant details]". To the right of the table is an image of a man reading a book. At the bottom, there is a "Filter Notifications by:" section with a yellow warning triangle icon, input fields for "Member ID", "Member Type", and "Date", and a "Filter Notifications" button. To the left of the filter section is an image of a stack of books.

Alert Time: No. of days (set in preferences) of lending after which an alert should be raised. i.e. No of days after which a book can be suspected of theft.

Notifications are records of lent books which have not been returned past the alert time. The members may have forgotten to return them, or possibly the books might be stolen. In such cases, the Librarian may click on the member ID to get member's contact details and remind the member via email, phone or post. If the member has stolen the books, member can be added to blacklist (see pg. 5) from there. The book's details can be viewed by clicking on a BookID, Title or TitleID and the book may be removed from there.

Filters such as Member ID, Member Type and Date can be specified by the user to search through the alert notifications.

❖ Managing Members

Member Type: Two types of members (Adult and Child) can be created in this system. Membership fee, renewal fee, book time etc. can be set differently to different Member types in the Preferences form. (Not to be confused with Member Status)

Member Status

- **Expired:** The Membership has passed the no. of months allowed for a membership of given type (Child or Adult) specified in Preferences. (All such members are automatically marked as Expired when the application is launched)
- **Valid:** The membership has not expired.
- **Blocked:** The Member is present in the blacklist.

Account Fines: When member has to pay fine for issues (called as book fines), the fine amount can be paid immediately, or if member is unable to pay them, the amount can be added to account fines to be paid later. This amount will not increase with time like book fines. But, the member will be reminded to pay this amount whenever he/she uses the library. The account fines can be paid right from here by clicking the 'pay' button.

Stars: Star Points is a rating method to rate the activity of a member in the library. It is calculated with details such as the number of books borrowed since the creation of membership and no. of check-ins per month. Members with highest no. of stars are listed in the statistics window (see pg. 12).

Blacklist: Blacklist consists of members who are blocked to access the library. A member might be blocked due to security reasons, behavior or for crimes such as book theft. When such a member uses the library again, perform a check-in, borrowing or return an alert will be raised to take necessary actions.

➤ Add New Member

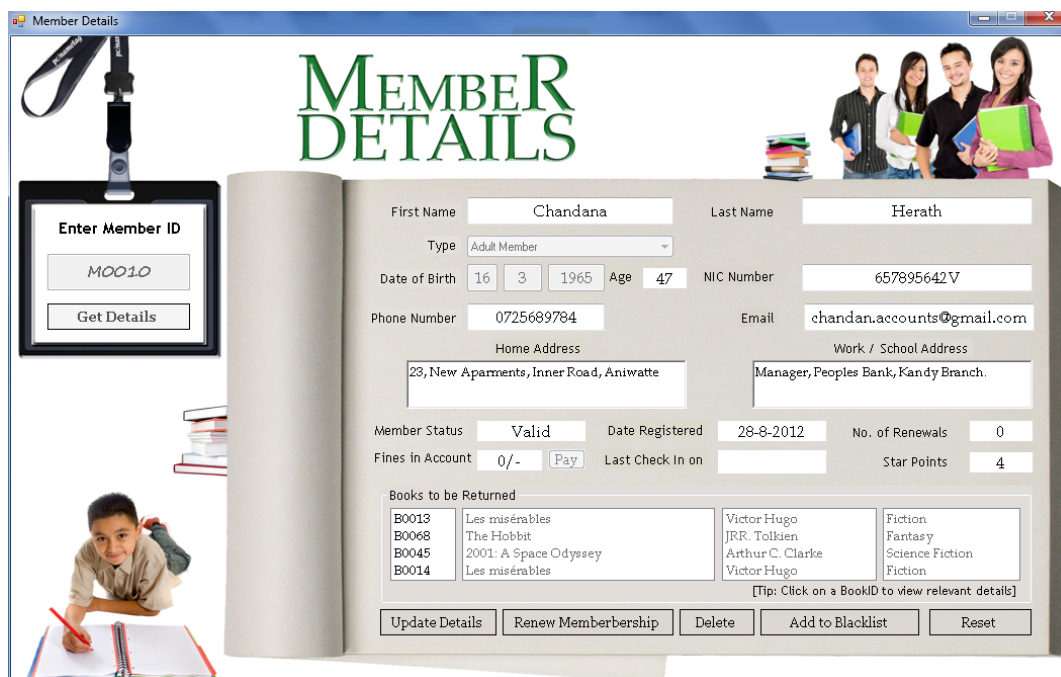
New members can be added to the library from this window in a matter of seconds. The Librarian may receive details from member and enter the details in the form.

When the 'Add Member' button is pressed, a series of checks for errors in details run in background and the member's details are added to the database. If any member is found with a matching NIC number or email ID, an error message is shown and the process is stopped. The Date Joined is set as today. The membership fee for this type of member (Adult or Child) is retrieved from preferences and the librarian is notified. The amount is then added to transactions.



Form to input Member Details and add new member

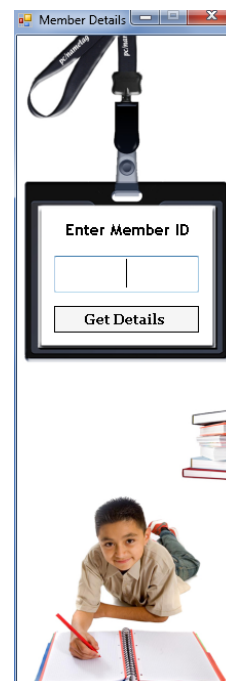
➤ Member Details



The screenshot shows a web application window titled "Member Details". The header features the text "MEMBER DETAILS" in large green letters, a photo of four people, and a stack of books. On the left, there is a sidebar with a "Enter Member ID" section containing a text input field with "MOO10" and a "Get Details" button. The main content area displays the member's details for Chandana Herath, an Adult Member. The form includes fields for First Name, Last Name, Type, Date of Birth, Age, NIC Number, Phone Number, Email, Home Address, and Work / School Address. It also shows Member Status (Valid), Date Registered (28-8-2012), No. of Renewals (0), Fines in Account (0/-), Last Check In on, and Star Points (4). A section titled "Books to be Returned" lists four books with their IDs and genres. At the bottom, there are buttons for "Update Details", "Renew Membership", "Delete", "Add to Blacklist", and "Reset".

Books to be Returned
B0013 Les misérables
B0068 The Hobbit
B0045 2001: A Space Odyssey
B0014 Les misérables

Window showing Details of a member



The screenshot shows a web application window titled "Member Details". The header features the text "MEMBER DETAILS" in large green letters, a photo of four people, and a stack of books. On the left, there is a sidebar with a "Enter Member ID" section containing a text input field and a "Get Details" button. The main content area is mostly blank, indicating that the member details have not yet been loaded.

Window requesting Member ID

Details of library members, such as age, contact information, status, fines in account and books to be returned can easily be viewed by entering the Member ID into the form. When a valid ID is entered, the form opens wide, displaying all the details.

In this window, most details can be edited by the librarian and tasks such as updating, renewing, deleting membership and adding/removing the member to/from blacklist can be done from here itself.

Update Details

When the member reports a change of addresses, NIC or email, those details can be updated to the database by clicking the Update button.

Renew Membership

Membership renewals can be done by clicking the 'Renew' button. When a child is old enough to be promoted into adult, a message is shown and the member is promoted as an adult. For the new membership, the Date Joined is set with today's date. When a valid (non-expired) membership is renewed, the Date Joined is set as the expiry date of the old membership. Blocked memberships and members with books to be returned or fines in account to be paid cannot be renewed.

A member can be added to or removed from Blacklist from this window.

❖ Managing Books

Book Types:

- **Reference Books:** Books which are not allowed to be borrowed by members
- **Adult Books:** Books to be borrowed by adult members.
- **Child Books:** Books to be borrowed by Adult and Child members.

Books and Titles: Using Alexandria, several copies books can be added under one Title. Each Book is identified by a BookID and Titles are identified by TitleIDs.

Popularity: Popularity of a Title is calculated from no. of borrowings per book. Using this, popularity of authors and genres can also be obtained.

➤ Add New Books

New books can be added to the library from this window. All the titles, authors and genres are listed in respective fields. Title, author or genre for the new books can be selected from the list saving time, or can be manually added. Books can either be added under a title which exists in the library or under a new title. The expenditure is calculated from price per book and no. of books.

Adding under an existing title

If the title exists in the database, all the details except no. of books are retrieved from the database and are displayed in the form. Only the no. of books is left to be input by the librarian.

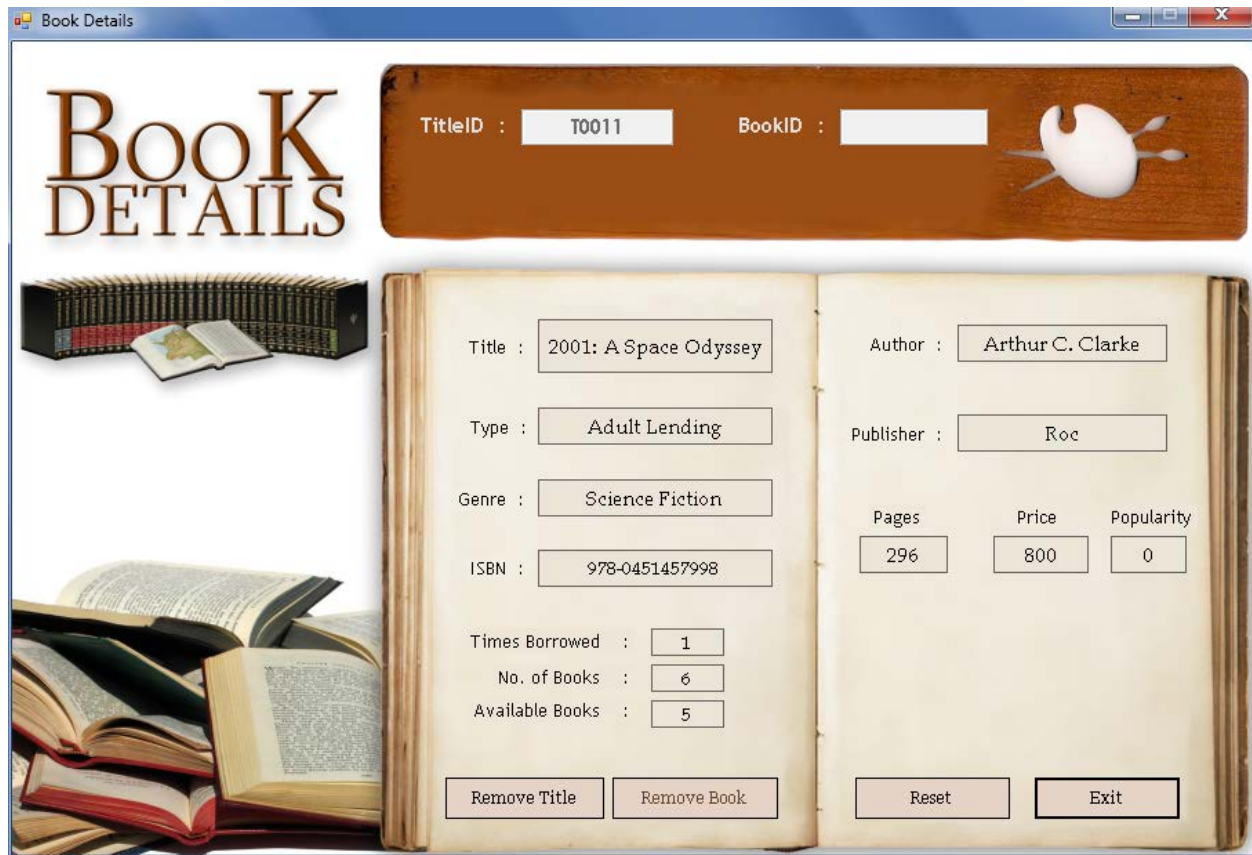
Adding under new title

If no such title exists in database, a blank form is shown, requesting to fill all the details. New title and new books are added when the add button is clicked.

Window requesting details of a new book

➤ Book Details

Window displaying details of a title



The 'Book Details' window displays a form with the following fields and values:

TitleID : T0011		BookID :	
Title :	2001: A Space Odyssey	Author :	Arthur C. Clarke
Type :	Adult Lending	Publisher :	Roc
Genre :	Science Fiction	Pages	296
ISBN :	978-0451457998	Price	800
		Popularity	0
Times Borrowed :	1		
No. of Books :	6		
Available Books :	5		
Remove Title		Remove Book	
Reset		Exit	



The 'Book Details' window displays a form with the following fields and values:

TitleID : T0011		BookID :	
Get Title Details		Get Book Details	

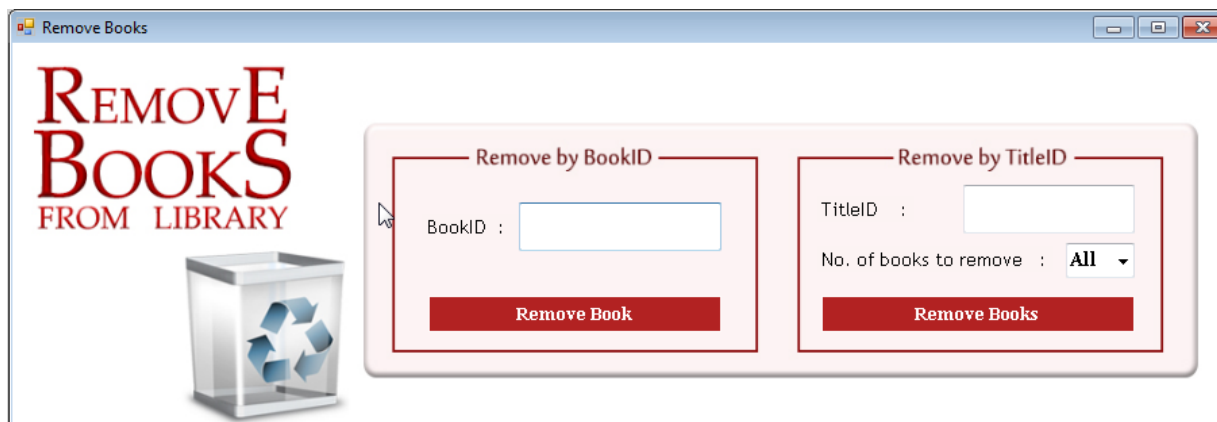
Window requesting a TitleID or BookID

Details of Books and Titles can be viewed from here. When a valid TitleID or BookID is entered and the respective button is pressed, the details are shown in the form. Common details such as Title, Author, Genre, Publisher etc. are shown for both BookIDs and TitleIDs.

Search by BookID returns few specific details such as availability of the book, borrower's MemberID (can be clicked to see member details), Lent Date, Fines etc.

➤ Remove Books from Library

Window to remove books by BookID or TitleID

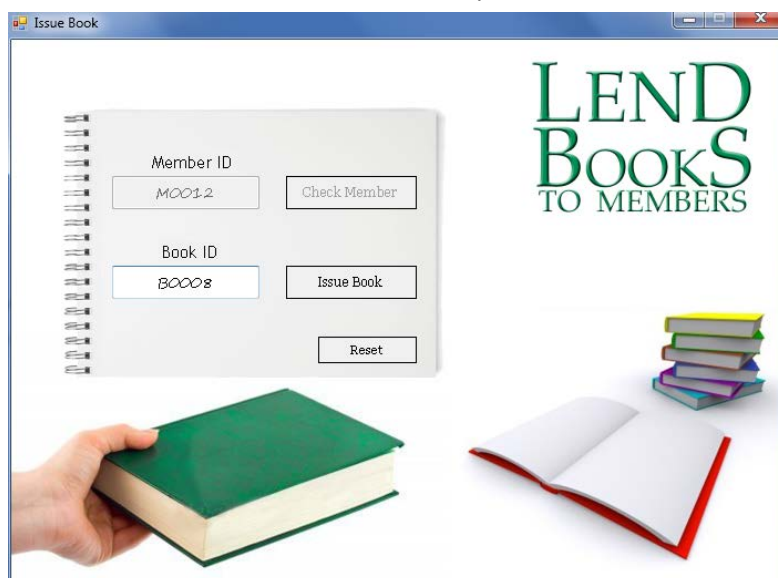


Books can be removed from Library with TitleID or BookID, in case of damage. When removing by BookID, books lent to members cannot be removed. When removing by TitleID, no. of books to be removed can be specified or the value can be set as 'All' to return and remove all the books under the title.

❖ Managing Book Issues

➤ Lending Books

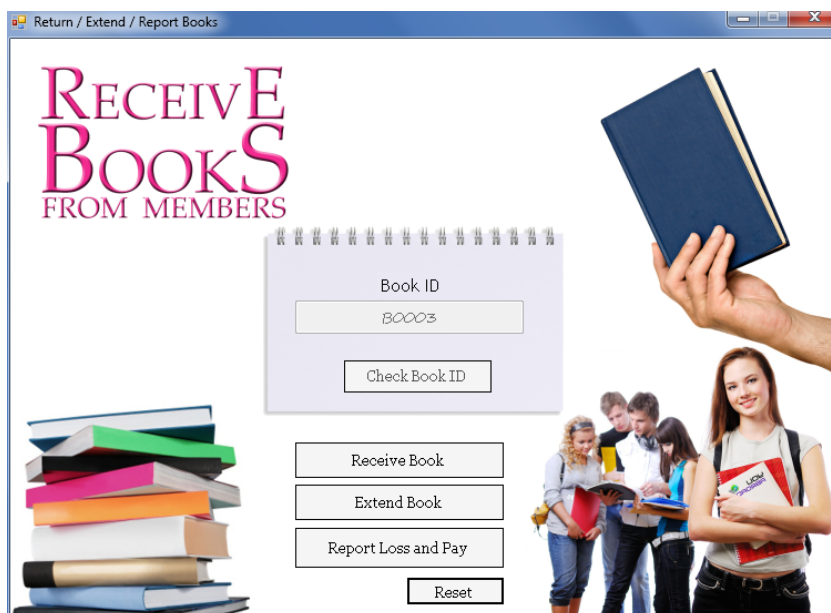
Books can be issued to members from this window. When a valid MemberID is entered, Member Type, Member Status, no. of books to be returned etc. are checked and rest of the controls are shown, allowing the librarian to input BookID. The BookID checked for Book Type, Availability etc. and the book lending is recorded. The date lent is set as today's date and the return date will later be calculated from preferences. If the member is blocked, or if there are unpaid fines in account, the Librarian is notified.



Window to Lend books to members

➤ Book Returns

Tasks such as book returns, paying for Book fines, extensions, reporting loss can be done from here. When a valid BookID of a lent book is entered, controls are displayed.



Window to Receive and Extend a book and to Report Loss

Receive Book

The book is checked for fines and the librarian is left with options to receive fines now or to add the book fines to member's account fines. The book is then marked as not lent. If the member is blocked, an alert is raised. An option to pay members previous account fines is also displayed.

Extend Book

The period of time allowed to keep the book can be doubled with an extension. To extend a book, the issue should not have been extended before and there should be no book fines. An option to pay members unpaid account fines is also displayed.

Report Loss and Pay

If a member has lost or damaged a book severely, the book can be removed from the library. A member will have to pay the fines for the book plus certain no. of times the price of the book (as specified in preferences for this member type).

❖ Member Features

Check-In, Check-Out and Book Search are the only features allowed for a user who has logged in as a member.

➤ Check In / Check Out

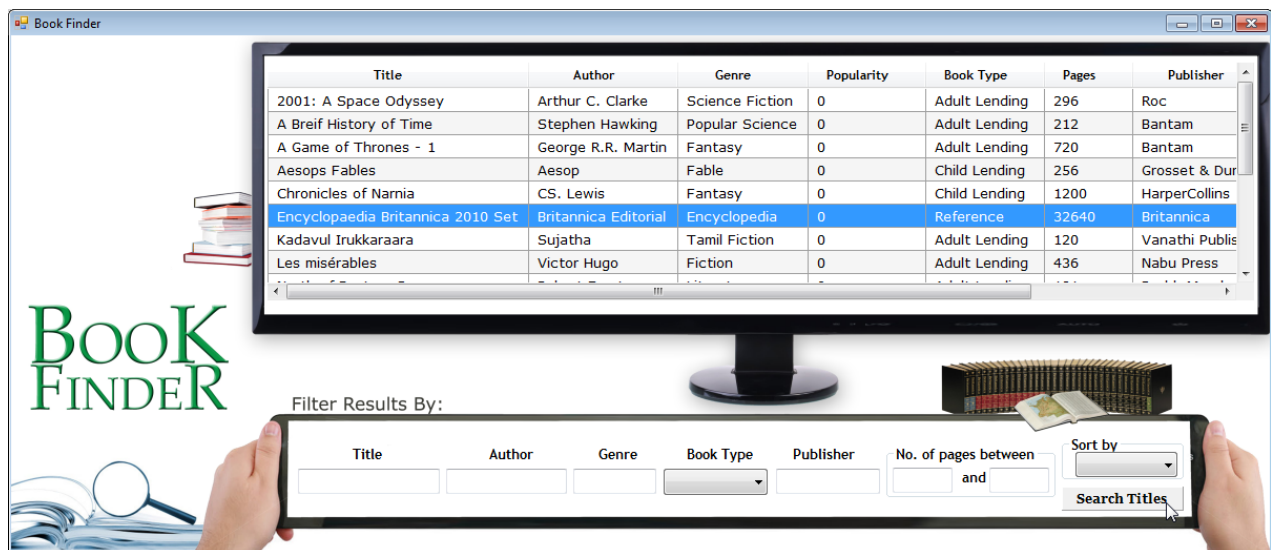
This window can be loaded on a computer near the entrance of the library to monitor the activity of members. A member can input his/her MemberID and click on a button to check in into the library or check out of the library. These details are logged with current time and can be seen from Member Logbook window, by an administrator. This could be useful when the management is in need to check the member activity for security reasons.



Check In, Check Out Window for Members

➤ BookFinder

BookFinder window to find books

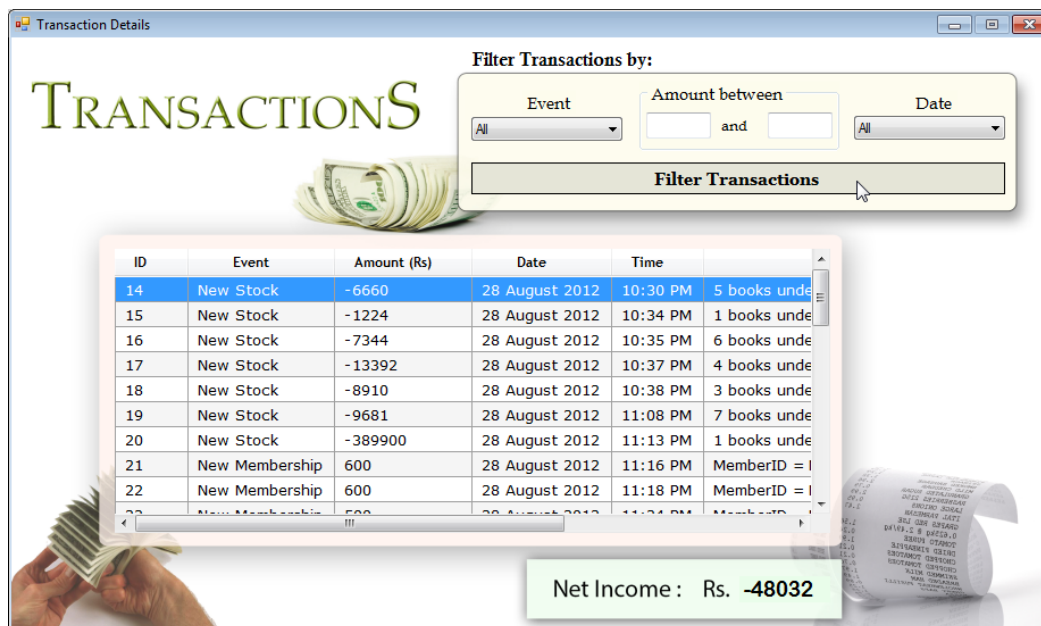


BookFinder helps the members to search through the book catalogue. By default, the window shows all the Titles in the library with details which could be useful for the members. Members can search through these by specifying details such as Title, Author, Genre, Book Type, Publisher and a range of no. of pages which is a feature that would be very useful and time-saving. They also can find how many copies are available to be borrowed under a title at the moment. When sorting by popularity, they can spot the books which are being read by most of the other members. With Genre and Author details, they can easily spot a book from the bookshelves.

❖ Administration

The features under administration can be accessed by administrator accounts only. They involve monitoring the transactions, member activity, statistics & trends and managing the preferences and user accounts.

➤ Transactions

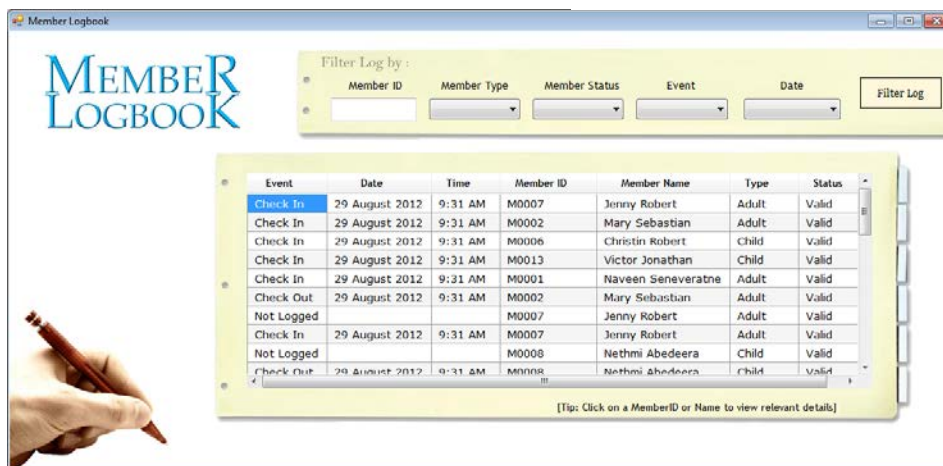


Window showing transactions

The Transactions window allows an administrator to monitor the income and expenditure accounts of the library. Expenditures are marked with a minus (-) sign in the table. By default, all the transactions are displayed. Transactions can be filtered by event (new stock, new member, renew membership, range of amount) and sorted by each column. Net Income or subtotal of the transactions that fit into the filters is also displayed.

➤ Member Logbook

Window showing member activity

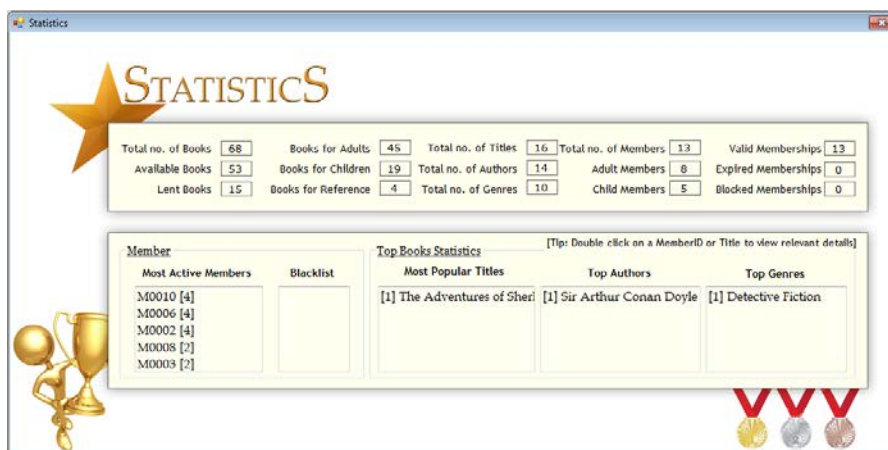


Member Logbook is a window that allows the administrators to monitor the activity of members. Member name, check-in and check-out details are displayed in the window. When a member check-in or check-out is not recorded, 'Not Logged' is displayed. Member activity can be filtered and member's details can be seen with a click on a member name or ID.

➤ Statistics

Statistics window displays the general details of the book collection and members such as total no. of books under each type, total no. of titles, authors and genres, total no. of members under each type and status.

This window also lists the most active members, most popular books, authors and genres. Most active members may be awarded and the most popular titles, authors and genres can be considered when selecting new books for the library. The blacklist of blocked members is also displayed here. Clicking on a Title or a MemberID displays more details about the Title or member.



➤ Preferences

Preferences Window allowing an administrator to change preferences regarding adult membership

The screenshot shows a window titled "Preferences" with a background image of gears. The window has three tabs: "Adult Membership", "Child Membership", and "User Accounts". The "Adult Membership" tab is selected. Inside the tab, there is a section titled "Payment and Fees" with the following settings:

Setting	Value	Unit
New Membership	Rs. 600	/=
Membership Renewal	Rs. 500	/=
Fine per day	Rs. 5	/=
No. of times of book's price to be charged from the member who has lost a book	5	times the price

Other settings in the "Adult Membership" tab include:

Setting	Value	Unit
Minimum age for Adult Membership	16	years
A membership expires in	12	months
Maximum no. of books allowed for a member	4	books
Maximum no. of days allowed for a member to keep a book	30	days
No. of days from lending of a book after which an alert notification should be raised	90	days

At the bottom of the window, there are two buttons: "Save Preferences" and "Exit without save".

The access to preferences window offers a great deal of power and control to administrators. Payment settings such as fees and fines, Time settings such as maximum no. of days allowed for an issue, no. of months in which a membership expires, minimum age for adult membership etc. can be set to Adult and Child memberships separately from here.

User accounts can also be managed from here. New accounts of both Librarian and Administrator types can be created, passwords can be changed for existing accounts and existing accounts can be removed from here.