

LIBRARY MANAGEMENT SYSTEM

USER MANUAL

The library management system consists of four functionalities. Each tab in the application is a separate functionality and they are as follows:

1. Check-out
2. Check-in
3. Create borrowers
4. Fine

Each functionality is described in details below.

1. Check-out functionality

- a) When a user wants to borrow a book from the library they need to check out the book by entering its details. A specific book can be retrieved from the database by entering ISBN, Title and Author of the book. The user can give either of the three or he can enter all the details to retrieve the book details from the database. Title and author of the book can even be a substring of the original string.
- b) Once the list of books with similar details are retrieved, the user can select the book which he wants to check out, enter his card number and give check-out. The card number should be a valid 6-digit number. If an invalid entry is given, an error occurs. If the user has already checked-out three books, the application produces an error message stating the same.
- c) When the book is checked-out, the availability of the book changes to 'unavailable'.

2. Check-in functionality

- a) When a user wants to return the book to the library he can select the check-in option.
- b) The user must enter either the ISBN of the book, the card number or the borrower's name in the given fields and enter search. List of books checked out by the user is returned.
- c) The user must then select the book, a pop-up message with the details of the book appears. By clicking on the check-in button, the book is returned and is updated in the list of books available.

3. Create borrower functionality

- a) The user can add a new borrower to the system by entering a list of required details of the new borrower.
- b) The details required are: First name, Last name, SSN, Street, phone, email. All the fields are required and cannot be left empty.

- c) SSN should be valid 9-digit entry and the phone number should be a valid 10-digit entry. The user can add the borrower after entering all the required details.

4. Fine payment functionality

- a) To update the fine amount due by each user, the user must click on the refresh button every day. By doing so, the list of outstanding fines gets updated.
- b) To retrieve the fine amount of a borrower, the user must enter their card number. A list of fines is retrieved. This includes both outstanding and paid fines. There is a filter provided for the user by which he can filter out the fines by whether they are outstanding or already paid.
- c) The user selects the book for which the fine is going to be paid by the borrower and can settle the amount.