LIBRARY MANAGEMENT SYSTEM

Version 1.0| Author-Preeti Duraipandian|pxd171230

Features Of the Library Management System

A separate tab has been provided for each of the following functions in the Library Management Application

* [Search a book based on a substring](#_Search_a_book)
* [Checkout a selected Book](#_Checkout_a_selected)
* [Find the checked out books based on borrower Name or card ID and return the selected book](#_Return_Book)
* [Pay Fine for the returned books which had accumulated fine individually](#_Pay_Individual_Book)
* [Pay total fine that a borrower owes for the returned books](#_Pay_total_Fine)
* [A way to refresh the fine amounts for all books](#_Refresh_Fine_Amounts)
* [Add a borrower to the database](#_Add_a_new)

## **Search a book based on a substring**

Select ***the Book Search & Checkout Tab***. Simply type in the substring that you want to search for in the text Box provided and click **Search**, all the matching results will be displayed in the table visible below. Your substring can consist of the author name or the ISBN or the book name and all relevant results will be displayed, along with the author name, book name and if it is available or not.

## **Checkout a selected Book**

In the same ***the Book Search & Checkout Tab,*** once your search is done, select one of the results by clicking on it (the row). The selected book’s ISBN gets filled up in the checkout section of the tab. You need to enter the card ID number in the space provided. Once you press **Checkout** button, the book will be checked out and you will receive a message if it was a successful checkout or not. If you were trying to checkout an unavailable book you will be prompted that the book is not available currently. If you already have 3 books in your name that have not been returned yet then you will not be allowed to checkout any more books until you return the books you currently possess. The check out date will be current date and due date is set is 14 days from today.

## **Return Book**

In the ***Return Book Tab***, you can search for either the Borrower Card ID or borrower name or book ISBN number, all relevant results would be shown. Note that these would only include the books that have not been returned yet. Select on the entries by clicking on it. On the right hand side the Return Section contains a **Return Button**. Once you click that, the book is checked in and if there are no errors while checking in Checked In successfully message appears.

## **Pay Individual Book Fine**

In the ***Pay One Book At a Time Tab***, enter the borrower ID or the borrower Name substring, all matching results will be displayed in the table below. This is because by default **All** is selected in the drop-down menu selection. To display **paid or unpaid** checkout separately, select the correct option and **click OK**. Select one of the results to pay the fine for. And press **Pay Fine** button on the right hand Pay Fine section. If ISBN entry of the Pay Fine section is empty then you will get an error message to enter a valid ISBN number. If fine for the book is already paid, you will not be able to pay fine again. If you are trying to pay an amount that is less than or greater than the asked amount, that will not be accepted. You have to pay the exact amount for the fine you owe. Note all the results shown on the left hand side are only the entries for which you need pay fine and for the books that have been returned. Books that have not been returned shall not appear in the results.

## **Pay total Fine**

In the ***Pay Total Fine Tab***, if you search for a particular Borrower ID or borrower Name, total fine that he/she owes is displayed. You can select the borrower who wants to pay the total fine and click Pay Fine on the right hand side section. Only the amount exactly equal to the fine amount is accepted. Anything less or more will throw an error message.

## **Refresh Fine Amounts**

Every once in a while you would want to update the fine amounts that each borrower owes. Also you would want to find out if there any checkouts whose due date expired sinc e the last time you refreshed the fines tables. Press the refresh button provided in both ***Pay Total*** ***Fine tab as well as Pay one book at a time tab*** to do both of the above.

***Note:*** Consider a case where someone has returned the book and wants to pay the fine. His fine amount will not be updated in either of the Tabs unless you press **Refresh button.**

## **Add a new borrower**

You can add a new borrower by going to the ***Add* *Borrower Tab.*** When you press the add Borrower button, a dialog box opens where you can enter the following fields of the new borrower-SSN, Name, Address and phone number. If you fail to provide any one of the fields, you will be prompted to enter the blank fields. Similarly you entered an invalid phone number of SSN, you will be prompted to correct it.