CS631: Fall 2017: Deliverable 3

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**Library Catalog: User Guide**

**Overall:**

All Boxes have vertical and horizontal scrollbars to traverse the displayed results. The Admin Menu and Reader Menu have logout buttons on the top left. Upon logging out, all entries typed by the User are cleared. The program can be exited through the File menu on the top of every page. The User clicks “File” and clicks “Exit” in the resulting dropdown menu.

**Start Page:**

The User has two different login options: Login by Admin and Login by Reader. In Login by Admin, the User must input an Admin ID and password, both of which are retrieved from the database. If the inputted combination exists, the User is taken to the Admin Menu page. If no such combination of ID and password exists, an error message is returned on the screen. Similarly, in Login by Reader, the User must input a valid Reader ID (also called Card Number). If it exists in the database, the Reader is taken to the Reader Menu page. Additionally, after login, the logged-in account’s Reader’s ID can be called from within Reader Menu page to retrieve that Reader ID’s reserved and borrowed books, etc. After logging in, any user input from the Start Page is cleared.

**Admin Menu:**

At the top, the User can use a drop down list to select which Library Branch they want to operate in; these branches are retrieved from the database. After selecting a Library ID, the top of the page will display that Library’s name and location. This library ID will also be used for the following functions: “View All in Current Branch”, “Add Copy to Current Branch”, “10 Most Frequent Borrowers in Current Branch”, and “10 Most Borrowed Books in Current Branch”.

To search for a document copy, the User has the option of entering 3 search criteria: Doc ID, Title, and Publisher. If a user only gives one or two of these search criteria, then the script will search for any documents containing the given search criteria, disregarding restrictions that could have been given using the search criteria without any input. For example, if the user searches for “B001”, “Bear Book”, “L001”, then only tuples that match all three will be returned. If the user just searches for “B001” and “L001”, any tuples that match both will be returned. Search results will displayed be in the box Search Results with the following attributes: Doc ID, Copy No, Lib ID, Doc Title, Publisher, and Status.

The User can also click “View All” to display every document copy in all branches. The User can also click “View All in Current Branch” to display every document copy in the currently selected branch. If no results are found, the Search Results box displays an error message. If no entries are given, a pop-up box with an error message appears.

To Add a Copy to the Currently Selected Branch, the user has two options: 1) The User can click an entry in the Search Results box, and its Doc ID will automatically appear in the Entry box to add a document (located below the search section), or 2) The User can manually provide the DocID. After adding the document, a popup box will appear saying that addition was successful. If no entry is provided, a pop up box gives an error message. Upon addition, the Search Results will refresh and list every document in the current branch (including the newly added one).

Using buttons on the right side, the User can find the “10 Most Frequent Borrowers in Current Branch”, “10 Most Borrowed Books in Current Branch”, and “10 Most Popular Books in Curernt Year”. Below this, all readers’ information and each of their average fines are displayed. The User can input a new reader by typing a name and address. The reader’s type (citizen, student, senior citizen, or staff) can be selected using a dropdown menu. Upon addition, a popup box will say a new reader has been added and the Readers box will refresh to include the new reader. If an error occurs, a popup box will show an error message.

**Reader Menu:**

Upon logging in to the User’s account, the User’s currently reserved and borrowed items are automatically displayed in boxes. The Search Results section works the same as the Admin Menu’s Search Results section. However, the User is able to click on Search Result’s entries to Checkout or Reserve. The User can also click on Reserved box’s entries to checkout. To Cancel Reservation, a User selects an entry in the Reserved box and hits “Cancel Reservation” (if nothing in the Reserves box is selected, an error message pops up). Upon checkout, a copy’s status becomes ‘Borrowed’ and if it was previously reserved, it is deleted from the Reserves table. All display boxes are then updated. A copy can only be checked out if its status is ‘Available’ or ‘Reserved’. If a ‘Borrowed’ copy is attempted to be checked out, it will not be checked out and an error message will pop up. Similarly, only ‘Available’ copies can be reserved, else an error message pops up.

The Borrows box shows all currently borrowed items; if a borrowed item was returned, it will not be shown, though that item will still be kept in the database to record the return date. If an item is overdue, its Fine is shown. To return an item, the User can select it in the Borrows box and hit ‘Return’. If successful, the item becomes borrowed and all display boxes are updated. Else, an error message pops up.

A reserved document has to be picked up before 6pm of the current day; if it is after 6pm, the program deletes any documents were reserved before the current day or before 6pm of the current day. This deletion check occurs every time the user hits the Checkout or Reserves buttons.

**Functions and Methods (for Programmer reference):**

Many of the functions involve connecting to the MySQL database using MySQL-connector and performing SQL queries. A more detailed outline of how these functions work is found in the documentation file: Library Catalog: Description of implementation.