
Project Report

For

Library Management System

Database Design (CS6360.001)

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1. User Instructions

The library management system is a system that allows library management to create and maintain accounts in a library where they can check in books and pay fines for overdue books. The different modules of the system are listed below.

1.1 Library Module

This module allows the user to access the various functionality like Search, Check in, Check out, Borrower Creation and Fines.

1.2 Search Module

The search module allows a user to search for a book by using the combination of either book's author name, book id and title. Once the user presses "search" the results will be displayed in the form of tables with the relevant books information.

1.3 Check in Module

The check in module allows the student to check in books which have been already checked out by the student. The library personnel can select one of the books or all the books of the student and enter the 'check in' date to check in the books. To get 'check in' results we can use either book id or card no or borrower name to get the results.

1.4 Borrower

This module allows the library personnel to enter new student users in the library database. The staff must enter the following details like First name, Last name, SSN and address in order to create a new record in the database.

1.5 Check out Module

This module allows a user to check out of the library management system. The library personnel has to enter the book ID, card number and branch ID. If the book exist is available in any of the library branches then the book is given to the student else a message is displayed saying that book is not available.

1.6 Fines

This module allows the student to check fines for a particular loan given the loan ID and also the sum of all the fines for which the student hasn't paid the loan. Given the library personnel can either enter loan ID or card ID. If the loan ID is entered then the fines for the particular is displayed else if the card ID is entered then the sum of all the fines for which the student has to pay will be displayed.

Another feature of the fines module is to update the paid column if the fine is paid then the paid column is set to '1' else it is set to '0'. The student pay for the books which haven't been returned.

2. Technical Dependencies

- The system was developed in a window 10 environment
- The IDE used to write the code is Eclipse and GUI interface using swings. We have used JDBC connector to connect to MYSQL server. Overall the code has 2 files one has MYSQL connectivity code and the other has for GUI