Library Management System Java Project

Library Management System is a software application implemented in Java platform using MS Access database design. It is useful for libraries in any <u>university</u>, <u>college</u>, or similar educational institution to manage and maintain data in database through computerized system. Using this system, users need not search the entire library to find a book; the list of books available is displayed by the application.

You can download the complete Java source code, abstract, and necessary project files of this project from the link below. The project report and documentation are not available at the moment, so you can refer the description provided here as project synopsis for LMS.

Library Management System Project Abstract:

LMS is a software application useful for librarians in any educational institution for management and handling of typical operations in the library. It manages data through computerized system in a database which eradicates the tediousness in searching a particular book in the entire library.

Existing System:

The existing <u>library management system</u> is very traditional and manual. Most of the things such as record of students who've issued the book, no. of books in the library, fine of <u>students</u>, etc. are recorded using pen-paper system. This traditional system requires a lot of time and manpower for performing simple operations in the library.

The drawbacks of existing system are:

- Record keeping is paper-based.
- The system is not computerized.
- There's high risk of data mis-management.
- Students face a lot of problem while searching a book.
- Chances of book theft from the library is high.
- A lot of paperwork and manpower is to be allocated for simple library management operations.

• The existing system is very inefficient and unreliable.

Proposed System:

The proposed library management software is developed after the analysis of issues, problems, and drawbacks of the existing system. Here, different modules have been assigned for managing and organizing different <u>tasks</u> in a library. Using this software, librarian can store information of all the books, with author name, faculty, etc., available in the library. Only one person can handle the entire library.

The main feature of this system is that all the books available in the library can be displayed in a list so that students need not roam through the entire library to find a book. Additionally, the application effectively maintains the details of users/students to whom books have been issued; it also records the issued date and return date.

Features:

- Add, modify and delete book details into the database.
- Search feature for finding book availability in library <u>stock</u>.
- Add students records upon issue of a book.
- Record issue date, return date, and fine (penalty).
- Payment system/feature allows the librarian to calculate payment details and print bill.

Technologies and Products Used:

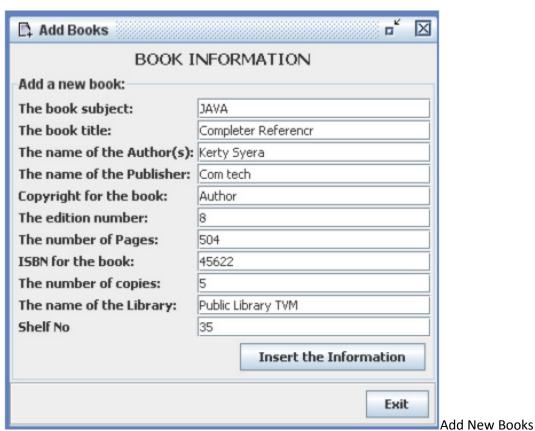
- NetBeans 5.0
- Tomcat 5.5 embedded in NetBeans
- Oracle10g Express Edition
- Jboss 4.0.3
- Java Server Pages (JSP)
- Java Beans
- Enterprise Java Beans

Modules Overview:

1. Insertion Module: With the help of this module, librarian can insert information and details of users along with book details and time and date of book issue.

- 2. Updating Module: This module allows modification to the existing records and details in the library management system database.
- 3. Report Generation Module: This module allows task such as printing payment details, stock details of books, etc.

Screenshots:



■ Books THE LIST FOR THE BOOKS Books: print the books Boo... Subject Title Author Publisher Copyright Edition Pages NumberOfBooks ISBN Library Availble Sh Thubaiti Co. 4 1-8877-904-X Main 4 Java, Swing Java Swing Salah 2002 1230 2 PHP 4.0 5 PHP Salah Thubaiti Co. 2000 860 2 1-8877-905-X Main 6 HTML Using HTML Salah Thubaiti Co. 1999 1 450 4 1-8877-906-X Main 7 Java, JSP More JavaServer Pages Salah Thubaiti Co. 2001 1 980 2 1-8877-907-X Main 11 Assembly Introduction To Assembly L... Salah Thubaiti Co. 1998 2 640 1|1-9988-908-X | Main | Programming in Java 15 Java 1998 1230 135 1-1997-904-X Main Balaguru Tata bal.java 1 7 12-34 16 java balaguru tata 1989 230 main

List of All Books

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BoakID	Subject	Title	Author	Publisher	Copyright	Edition	Pages	ISBN	Library
4 38	ava, Swing	Jaya Swing	Salah	Thubaiti Co.	2002	2	123D	1-8877-904-X	Main
5PHP		PHP 4.0	Salah	Thubaiti Co.	2000	3	86D	1-8877-905-X	Main
6 HTML		Using HTML	Salah	Thubaiti Co.	1999	1	450	1-8877-906-X	Main
7 Ja	ava, JSP	More JavaServer Pages	Salah	Thubaiti Co.	2001	1	98D	1-8877-907-X	Main
11 A	ssembly	Introduction To Assembly Lan	Salah	Thubaiti Co.	199B	2	64D	1-9988-908-X	Main
15 Java		Programming in Java	Balaguru	Tata	199B	3	1230	1-1997-904-X	Main
16 ja	ava .	bal.java	balaguru	tata	1989	1	230	12-34	main

Available Books

System Configuration:

Hardware Configuration:

• Processor: Pentium III 630MHz

RAM: 128MBHard Disk: 20GB

• Monitor: 15" Color Monitor

• Keyboard: 122 keys

Software Configuration:

• Operating System: Windows NT/ Windows 98/ Windows XP

• Language: Java 2 Runtime Environment

• Database: MS Access

• Conclusion:

The proposed library management system meets the current requirements of users
of a typical library, but many new features and enhancements can be added into the
system as per user requirements. Some of these include developing system using
RFID, adding SMS module, sending SMS to check book availability, etc.