

The Development of a  
Library Management System  
SY 1996-1997

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Bachelor of Science in Computer Science

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**ABSTRACT**

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**OBJECTIVES OF THE STUDY:****A. GENERAL :**

The general objective of the study is to develop a Library Management System.

**B. SPECIFIC :**

The specific objectives are:

1. To develop an On-Line Cataloging Module for both Subject and Author/Title Reference
2. To develop a Search Module which allows everyone from the novice user to the system librarian to quickly locate the item they want using the smallest shred of data
3. To develop an automated Materials Booking System Module which streamlines and simplifies the management of audio/visual media and equipment.
4. To develop a module which offers a wide variety of reports. These include standard overdue notices, daily cash receipts, filtered listings of searched

materials, listings of specific item groups for periodicals, serials, Publication Records and Bibliographic Records

5. To develop an accurate and up-to-date system which supports Circulation tracking; this gives complete control over library collection and at any given time, one will know who has what book or determine the availability of a specific book.
6. To develop data manipulation modules which handle requests from the user to retrieve, update, or delete existing data in the database, or to add a new data to the database
7. To develop a module which automates the Circulation Desk of the Library; This automates the validity of a patron's status and the borrowing and returning transactions of Patrons.

#### **SCOPE AND COVERAGE:**

The scope of the program produced does not tackle the inventory system of the library. It will only focus specifically on its objectives. The project is limited under a single user system which implies that the system is not made for Client/Server stations. Yet, the program is still designed so that it can be adapted under a networking environment with a few conversions, including the upsizing of all database viewers involved.

#### **METHODOLOGY:**

The basic steps that the author followed in creating the system was by following the 7 stages of Software Development which are **Requirement Analysis - System Design - Program Design - Writing the program - Unit Testing - Integration Testing - System Testing**

**OUTPUT OF THE STUDY:**

An MIS for library management was developed to demonstrate the advantages of an automated and integrated library management system. The advantages include quick searching capabilities on both Author/Title and Subject card catalogue entries, accuracy and up-to-date information associated with circulation tracking of books, and having a paper-less circulation library loan desk. Features that have been added to make the system user friendly includes an on-line help system and a push-button user interface. Security is handled under a “sequence entry password” not requiring the user to input a password, but, rather to conduct a series of screen clicking sequences before system access is possible. The software was made to run under the Windows-based environment //

**CONCLUSION:**

Based on the system produced, the author was able to come up with a library management system that is enough to efficiently manage and control the library’s reference circulation and circulation of other general holdings.

**RECOMMENDATIONS:**

Because of the lack of time for maintenance of this program, not all errors have been considered. The program is approximately 90 percent correct. Yet errors may arise since not all, but only the common errors were dealt with. The author recommends that, to avoid unwanted errors, it is strongly suggest that the user input appropriate and valid inquired data. For the system’s capabilities, the system did not include the inventory system and a reservation module. For developers, it is important that these two modules be included to the general system, that is, to consider the system as fully integrated and complete.

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