



Immaculada Concepcion College

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AN E-LIBRARY MANAGEMENT SYSTEM IN IMMACULADA CONCEPCION COLLEGE

A system presented to the faculty of

Computer Science

In partial fulfillment of the requirements in the subject

CS 312 – System Analysis and Design

Leading to the degree of

Bachelor of Science in Computer Science

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CHAPTER I

Introduction

E-Library Management System is an application which refers to library systems that are generally small or medium in size. A computerized system is used by librarians to manage the library, allowing them to upload new books, films, and other materials. Additionally, it is utilized to keep track of books, and users who have taken out library services.

Book and student maintenance modules are also included in this system which would keep track of the students using the library and also a detailed description about the books that the library contains. With a computerized system there will be no loss of book records or member records which generally happens when a non computerized user. All these modules are able to help librarians to manage the library with more convenience and in a more easier way as compared to manual library records.

According to G Kavitha and P. Valarmathy (2022), Early days Libraries are managed manually. It required a lot of time to record or to retrieve the details very less. Report generations Maintenance of Library catalogue and arrangement of the books to the catalogue is a very complex task. In addition to its maintenance of member details, issue dates and return dates etc. manually is a complex task. All the operations must be performed in perfect manner for the maintenance of the library without any degradation which may finally result in the failure of the entire system.

According to Anurag (2020), a library should use a software system that helps in effectively managing the data in a library. The library database includes all relevant information regarding assets to membership details. The software records details on all reading and reference material available for reading and lending. Membership information, lending details and renewal dates are managed by the software. A library management system operates a library with efficiency and at reduced costs. The system being entirely automated streamlines

all the tasks involved in operations of the library. The activities of book purchasing, cataloging, indexing, circulation recording and stock checking are done by the software. Such software eliminates the need for repetitive manual work and minimizes the chances of errors.

According to Bouchrika (2022), library management today is quite complex. Given this, librarians need to keep track of the complexity in order to make data-driven decisions to optimize their operations and better serve their patrons. But, to do this, they need to have access to key library management statistics in real-time. However, without the right tools, librarians will not be able to deal with the current toughest barriers to data analysis properly. These are lack of time (61%), lack of expertise (54%), and the lack of personnel (52%).

Statement of the Problem

General Problem

The problem faced is that library users require an efficient method to find a specific book or keyword(s) within a book given a continuously expanding library.

Specific Problem

E-Library management system may experience:

- Information accuracy.
- Inconsistent data in the database that can cause system instability and corruption.

Objectives of the Study

General Objectives

The E-library management system makes the library a smart one by organizing the books systematically by author, title and subject. This enables users to search for books quickly and effortlessly.

Specific Objectives

- To develop a system that will lessen the work of the librarian.
- To provide a system that prevents time consuming.
- To develop a system that will store the data of the books.
- To create a system that will easily view the books.

Scope and Limitation

Scopes

- The system can add book information.
- The system can display book information.
- The system can list all the books of a given author.
- The system can list the count of the books in the library.

Limitations

- The system cannot be accessed without signing in.
- The system cannot be used without an internet.

SIGNIFICANCE OF THE STUDY

The researchers propose to develop an E-Library Management System in Immaculada Concepcion College in some way to help the school librarian in terms of monitoring and managing the process of book transaction.

The proposed system will benefit the following:

- **The Librarian**

The computerized library system will improve the monitoring capacities of those who maintain the library. And it is more secure to store the information when using an automated system.

- **Teachers**

The teachers will gain benefit because it will be easier for them to look up the books that they need and can add .

- **Students**

The student will greatly benefit because it will be easier for them to find the books without going through the traditional way of searching a library material. It is convenient and not time-consuming.

- **The Future Researchers**

This proposed system will help future researchers because this study provides essential information for developing and implementing an E-Library Management System. The future researchers can use this as a reference and guide for their future study by developing an Offline Library Management System and enhancing it.

DEFINITION OF TERMS

E-library - is a collection of digital objects.

Develop - it is the process of improving or expanding something.

Implement - to give practical effect to and ensure actual fulfillment by concrete measures.

Monitor - observe and check the progress or quality of (something) over a period of time.

Transaction - is an agreement, or communication, between a buyer and seller to exchange goods, services, or assets for payment.

Automated system - an integration of sensors, controls, and actuators designed to perform a function with minimal or no human intervention.