**Library Management System**

**Table of Contents**

**List of Tables**

**List of Figures**

**List of Appendices**

**Acknowledgement**

1. **Introduction**

Library Management System is a system designed to improve and organize transactions between the librarian and the students in sorting and issuing books. It is a computer-based system which helps librarian in monitoring issued books, sorting and searching books by categories.

Library Management System gives all the details of books, staff and students. It can determine how many books available and issued at the students. And it shows what books is popular to the students.

**1.1 Background of the Study**

Library Management System is an application which refer to library system especially for some small organizations. Using a computerized system, the librarian can use it for him/her to be able to record various transactions like issue and returning of books, as well as the addition of new books, students and etc. With this computerized system, there will be no loss of book record which generally happens for those who are not using computer-based system.

Since the Calumpit National High School is a public school, the administration of the school didn’t provide enough budget for the library to produce a system. As a matter of fact, the library of the said school is also used as a classroom. So, the students have no other choice but to borrow the books from the librarian in just one day only. All the system’s modules aim to help the librarian to manage the transactions in their library with more organized, efficient, and convenient ways

**1.2 Statement of the Problem**

Nowadays, it was difficult to rely on paper-and-pen based records and informations in some institution most likely in some organizations, small groups , office works especially educational institutions with the most numbers of students are one of the leading users of computer applications to be able to manage important data.

A Manual record keeping particularly in the library is not a reliable way as people tend to forget things , in such situations many people involved in the process of managing the library in keeping records of books and borrowers (Students), check the books manually and etc. If the library is large in content handling is also a problem. In some cases people get annoyed if they might be searching for a book that is not available in the library. Therefore there should be a reliable way to manage the library system.

If the Library Management are capable in using technology generated systems, information system allows the communication technologies and data to be utilized in different actions in the library. In this generation, as the technology continues to advance .We have to practice on how to become updated, upgraded and to improve individuals in different fields and carry out its daily operations.

In general, for us to be able to provide a better transaction and many information, to have a better management and progression, we have to come up with the computer-based dominion.

**1.3 Objectives of the Study**

**1.3.1. General Objectives**

* The objective of this study to produced, developed and implement a library system using more advanced approached of technology to lessen the problem encountered during the manual process of borrowing and returning of books and to make their library system to be automated.

**1.3.2 Specific Objectives**

* To provide the students and the librarians a better library system in processing each transaction that will lessen their time and effort.
* To create a database that enable to update all the data and records of the students from different level.
* To develop a system that will give various details of the book such as the Title, Author, Count, Edition and basic information.
* To identify barrowers.

**1.4. Significance of the Study**

Library is the best place in the School where the students review and study. Our group aims to improve the manual process of the library system, so we decided to make something that makes the time of students and library personnel and staffs less effort for searching and borrowing of books.

**Students/borrowers >**> This study will benefit the students because it will provide easy-to-use system .It will be easy for them to know if the book they’re searching in the library is existing and they will have lesser time to locate where the books located.

**Library personnel and Staff >>** It will lessen their paper works and conserve time in searching books and give an accurate report with regards to the book and barrowers information ; when it comes to maintaining data that contains all the records in the library as the computer restore the details.

**School** >> The library management system is to provide quality data in the School in a timely fashion through systems that are completely integrated. This will provide opportunities for operational efficiency.

**Propenents** >> This study is a gives a lot of benefit for the proponents and it is kind a great achievement because it improves their skills in providing and constructing program. They convert the manual processes into computerized system experience. They also teach on how to be more creative, responsibility and time management. It also serves as a training for them to prepare to the competitive professional field.

**Researchers/Future Researchers >>** This study will serves as a reference for the future study. This study is also beneficial to them that they will easy to overcome challenges, ideas on how to conduct their own decisions, implementations and studies. The study serves as a motivation and guide to enhance them for the developing a new propose systems.

**Scope and Limitations of the Study**

The study was about the Computerized Library System for the Calumpit National High School. The implementation of the system will lessen the time and effort of the users in terms of recording, adding, editing, searching, deleting and printing of records. The system can also help in reducing the expenses of the library such as papers, folders, pens and other materials needed in their current system. The system is computer-based that enables the librarian to share the records of the student such as the borrowing books, returning books, search books, and reserving of books. The system can generate student registration and book registration.

The student’s personal information/data may be stored upon the request of authorized librarian. The system has no access for the students; is only authorized personnel are allowed to use the system.

**2.0 Methodology of the Study (Software Engineering Paradigm)**

In this methodology, the proponent are allowed to produce an enhanced system.This idea of waterfall methodology aims to help and create a more efficient, reliable and effective system for guidance office.

**Figure 1.0 Water Fall Model**

**Phase 1: Requirements**

**In this phase, proponents will gather data from beneficiary about the system to develop, this includes the objectives and requirements of the system.**

**Phase 2 : Design In this phase, the flow of the system will be design. the design to be created will be based on the client’s requirement.**

**Phase 3 : Implementation**

**In this phase, starting to develop the system based on the design we created.**

**Phase 4 : integration & Testing**

**In this phase, we will test and check the developed system for some errors, if there’s an error we will fix it immediately, otherwise if it is error free we will proceed to the next**.

**Phase 5 : Deployment of System**

**In this phase, we will now give the success and finished system.**

**Phase 6 : Maintenance**

**In this phase, reviewing the system from time to time , system updates occurs, if there’s anything changes on the system it will occur here .**

**3.0 Data Gathering Procedures and Outputs (Define Requirements of Software)**

The data for this research were collected using an interview. We conducted an interview with Mrs.Magtoto the present librarian of Calumpit National High. She show us their current system formation and conclude the requirements we can change that the program must be user friendly and fast access to database; must be organized in keeping the data, have security to make sure that the file are secured, less error and of course quick transactions.

The questions we made sure that we can get all the information and requirements for our proposed program.

 The question we made was created using suitable questions modified from related research. The interview was comprised of 12 questions.

For Librarian:

1. How many Students? Senior High and Junior High.

* 2,000 students

1. When was the library was built?

* 2years functioning

1. Is there any librarian there? How many?

* 2 librarians (morning shift and afternoon shift)

1. Is there any existing system in your library?

* None.

1. How you organize books? And how you categorize them?

* By subjects, according to subjects.

1. What are the process on issuing books?

* By logbook, records.

1. How long did the books stays on the students before returning?

* 1 day/ overnight

1. Do you have list of the students that are borrowing your books and their information?

* none

1. What are the specifications of your computers?

* Windows 8

1. Do you have internet access?

* Yes

1. Library hours

-After class of morning, and lunch break

12. User Level (for security login)

- 2 librarian only.

**4.0 Documentation of the cutternt system**

4.1 Description of current System

* + - * + We are about 10% of our work that we proposed in the calumpit national high school and we will intent to continue our work until its finish.

System containts:

Database

Input/output desings

Code’s functions

4.2 Hardware setup/Equipment setup

* + - * + Keyboard
        + Mouse
        + PC with installed C# and XAMMP

4.3 Software setup/Equipment setup

* + - * + You must have a C# installed in pc + XAMMP in order to use the program or just run the .exe file to manage the file.

4.4 Personel