

ABSTRACT

Title: LIBRARY MANAGEMENT

Name: K Venkat Naveen Kumar

Roll No: 1009-17-861-095

Course: BCA

Guide: G. Sahaja

Centre: Nizam College, Osmania University.

Mobile: 7799875357

Email: kvnk1999@gmail.com

**Library Management**

**INTRODUCTION:**

The objective of Library management for monitoring and controlling the transactions in a library .The project “**Library Management ”** is developed in java, which mainly focuses on basic operations in a library like adding new member, new books, and updating new information, searching books and members and facility to borrow and return books.

“Library Management” is java-based desktop application written for Windows operating systems, designed to help users maintain and organize library. Our software is easy to use for both beginners and advanced users. It features a familiar and well thought-out, an attractive user interface, combined with strong searching Insertion and reporting capabilities. The report generation facility of library system helps to get a good idea of which are the books borrowed by the members, makes users possible to generate reports’ hard copy.

The software Library Management has four main modules.

* Insertion to Database Module – User friendly input screen
* Extracting from Database module – Attractive Output Screen
* Report Generation module – borrowed book list & Available book list
* Search Facility system – search for books and members

**SYSTEM ANALYSIS**

**EXISTING SYSTEM:**

System Analysis is a detailed study of the various operations performed by a system and their relationships within and outside of the system. Here the key question is- what all problems exist in the present system? What must be done to solve the problem? Analysis begins when a user or manager begins a study of the program using existing system.

During analysis, data collected on the various files, decision points and transactions handled by the present system. The commonly used tools in the system are Data Flow Diagram, interviews, etc. Training, experience and common sense are required for collection of relevant information needed to develop the system. The success of the system depends largely on how clearly the problem is defined, thoroughly investigated and properly carried out through the choice of solution. A good analysis model should provide not only the mechanisms of problem understanding but also the frame work of the solution. Thus, it should be studied thoroughly by collecting data about the system. Then the proposed system should be analysed thoroughly in accordance with the needs.

System analysis can be categorized into four parts.

* System planning and initial investigation
* Information Gathering
* Applying analysis tools for structured analysis
* Feasibility study
* Cost/ Benefit analysis.

In our existing system all the transaction of books is done manually, so taking more time for a transaction like borrowing a book or returning a book and also for searching of members and books. Another major disadvantage is that to preparing the list of books borrowed and the available books in the library will take more time, currently it is doing as a one-day process for verifying all records. So, after conducting the feasibility study we decided to make the manual Library management system to be computerized.

**PROPOSED SYSTEM:**

Proposed system is an automated Library Management. Through our software user can add, remove, list and update books and members. And also, search books and members in quick time. User can borrow and return books. It provides automated late fee calculation. It has option for help.

Our proposed system has the following advantages.

* User friendly interface
* Fast access to database
* Less error
* More Storage Capacity
* Search facility
* Look and Feel Environment
* Quick transaction

All the manual difficulties in managing the Library have been rectified by implementing computerization.

**FEASIBILITY ANALYSIS**

Whatever we think need not be feasible. It is wise to think about the feasibility of any problem we undertake. Feasibility is the study of impact, which happens in the organization by the development of a system. The impact can be either positive or negative. When the positives nominate the negatives, then the system is considered feasible. Here the feasibility study can be performed in two ways such as technical feasibility and Economical Feasibility.

**Technical Feasibility:**

We can strongly say that it is technically feasible, since there will not be much difficulty in getting required resources for the development and maintaining the system as well. All the resources needed for the development of the software as well as the maintenance of the same is available in the organization here we are utilizing the resources which are available already.

**Economic Feasibility:**

Development of this application is highly economically feasible. The organization needed not spend much m one for the development of the system already available. The only thing is to be done is making an environment for the development with an effective supervision. I f we are doing so, we can attain the maximum usability of the corresponding resources. Even after the development, the organization will not be in a condition to invest more in the organization. Therefore, the system is economically feasible.

**SOFTWARE REQUIREMENTS:**

Operating System: Windows 10

Programming Language: Java Swing

IDE: Oracle JDeveloper 12c

Database: Oracle 11g

**HARDWARE REQUIREMENTS**: Processor: Intel Core i3

RAM: 4 GB for 64-bit Operating System or 3 GB for 32-bit Operating System

Hard Disk Space: 20 GB