**JAYPEE INSTITUTE OF INFORMATION**

**TECHNOLOGY, NOIDA , SECTOR-62**

**SDF-I MINI PROJECT**

**SYNOPSIS**

***LIBRARY MANAGEMENT SYSTEM***

**SUBMITTED TO:**

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**ABSTRACT OF THE PROJECT**

**INTRODUCTION:**

Library Management System is a software used to manages the catalog of a library. This

helps to keep the records of whole transactions of the books available in the library. Library Management System which is very easy to use and fulfills all the requirement of a librarian. There are many features which helps librarian to keep records of available books as well as issued books..

Here is a list of some features of Library Management System

* Keep record of different categories like; Books, Journals, Newspapers,Magazines, etc.
* Classify the books subject wise.
* Easy way to enter new books.
* Keep record of complete information of a book like; Book name, Author name,Publisher’s name, Date/ Year of publication, Cost of the book, Book purchasingdate/ Bill no.
* Easy way to make a check-out.
* Easy way to make a check-in.
* Automatic fine calculation for late returns.
* Different criteria for searching a book.
* Different kind of reports like; total no. of books, no. of issued books, no. of

journals, etc.

* Easy way to know how many books are issued to a particular student.
* Easy way to know the status of a book and much more.

**BACKGROUND OF PROJECT**

E-Library Management System is an application which refers to library systems which are generally small or medium in size. It is used by librarian to manage the library using a computerized system where he/she can add new books, videos and Page sources. Books and student maintenance modules are also included in this system which would keep track of the students using the library and also a detaileddescription about the books a library contains. With this computerized system there will be no loss of book record or member record which generally happens when a non -computerized system is used. All these modules are able to help librarian to

manage the library with more convenience and in a more efficient way as compared to library systems which are not computerized.

**OBJECTIVE OF THE PROJECT:**

Library Management System is a system which maintains the information about the books present in the library, their authors, the members of library to whom books are issued, library staff and all. This is very difficult to organize manually. Maintenance of all this information manually is a very complex task. Owing to the advancement of technology, organization of an Online Library becomes much simple. The Online Library Management has been designed to computerize and automate the operations performed over the information about the members, book issues and returns and all other operations. This computerization of library helps in many

instances of its maintenances. It reduces the workload of management as most of the manual work done is reduced. The system deals with the all the requirements needed for managing the library. It deals with the process of managing data about the books in the library. Library management System maintains the record of books in the, issue and return process of the book in the library. Here we are primarily concerned with management of books of library. In this project we identify the need for computer based Library Management System.

**TOPICS OF SDF USED**

* Basis of c language.
* Data types
* Operators
* If else
* Arrays
* Function
* Structure
* Loops
* Data file handling
* Pointers

**MODULES USED:**

The various modules used in the projects are:

1. User Module: It covers all the needs of a user like issuing a book, returning the books, searching a book etc. All the users created will be provided with a unique login ID and their passwords for their privacy.

Sub Modules:

⮚ Issue Book

⮚ Book Availability

⮚ Return Book

⮚ Search Book

2. Librarian Module: This module helps the library staff to keep an eye on various activities done by user and other activities like ordering new books, editing old data, creating new user, deleting books etc.

Sub Modules:

⮚ Creating User

⮚ Deleting Books

⮚ Ordering Books

⮚ Book Availability

3. Admin Module: This module covers all the requirements of administrative staff like maintaining user database, adding new users, modifying user details etc. It also covers up all the sub modules of librarian module.

Sub Modules:

⮚ Add Users

⮚ Update Users

⮚ Delete Users

***Note- New Modules and Sub Modules can be added as per the requirement of***

***The management system.***

**PROJECT CATEGORY:**

This Project comes under file handling management category in C language. File

handling is done using concept of array in c language. It is console based and user interactive.The UI is interactive and easily understandable.

Software used:

⮚ Software apps like Code blocks or visual studio code are used in creating in

the project.

⮚ Code blocks: Is an IDE used for C language. It has inbuilt compiler.

⮚ Visual Studio Code: It is same like Code blocks but a compiler like mingw or

any has to be installed for compilation of the code.

⮚ System can be any 32/62 bit.

⮚ Ram should be greater than or equal to 2 GB.

**CONCLUSION AND FUTURE SCOPE**

This C Program provides a computerized version of Library Management System which will benefit the students as well as the staff of the library. This Library Management System Project in C can perform functions such as add books, return books, issue books, delete record of books issued, view record of books issued, search for books, and more. File handling has been extensively used in this project for almost all functions. It also has facility for student login where students can login and see status of books issued as well as request for books. Scope:

The different areas where this program can be used are :

⮚ Any educational institute can make use of it for maintaining the records of books issued by students and providing information of the books available at the library.

⮚ It can be used in offices and modifications can be easily done according to requirements.

⮚ There is another future scope of this facility that more features like money transactions for issuing books can be added.

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