

**MADAN MOHAN MALAVIYA UNIVERSITY OF
TECHNOLOGY GORAKHPUR - 273016**



**Project Report On
“LIBRARY MANAGEMENT SYSTEM”**

**To the Madan Mohan Malaviya University of Technology during the academic year
2020-2021 in partial fulfillment for the award of**

MASTER OF COMPUTER APPLICATION

Submitted by:

Name:

Roll No.:

AMAR CHAUHAN

[2019104009]

Under the Guidance of,

Prof. R.K. Dwivedi,

Assistant Professor,

Department of Information Technology &
Computer Application,

Madan Mohan Malaviya University of
Technology, Gorakhpur



**DEPARTMENT OF INFORMATION TECHNOLOGY &
COMPUTER APPLICATION**

MADAN MOHAN MALAVIYA UNIVERSITY OF TECHNOLOGY

GORAKHPUR-273016

2020-2021

MADAN MOHAN MALAVIYA UNIVERSITY OF TECHNOLOGY, GORAKHPUR



Department of Information Technology & Computer Application

CERTIFICATE

Certified that the project work entitled “**LIBRARY MANAGEMENT SYSTEM**” is carried out by **AMAR CHAUHAN** (Roll No: -**2019104009**), bonafide students of **MADAN MOHAN MALAVIYA UNIVERSITY OF TECHNOLOGY, GORAKHPUR** in partial fulfillment for the award of **MASTER OF COMPUTER APPLICATION** in Department of Information Technology & Computer Application during the year 2020-2021. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Prof. R.K. DWIVEDI,

Assistant Professor,
Dept. of Information
Technology & Computer
Application.

Prof. Jai Prakash,

Assistant Professor, Dept.
of Information
Technology & Computer
Application.

Prof. Sarvpal Singh,

Professor & HOD,
Dept. Of Information
Technology & Computer
Application

Examiners Name:

1. _____
2. _____

Signature with Date:

: DECLARATION

I hereby declare that this Project work entitled, “**LIBRARY MANAGEMENT SYSTEM**” has been carried out by us under the guidance of respected **Prof. R. K. Dwivedi**, Assistant Professor, Dept. of Information Technology & Computer Application, **MADAN MOHAN MALAVIYA UNIVERSITY OF TECHNOLOGY, GORAKHPUR** for partial fulfillment of the degree of **Master of Computer Application**. We also declare that we have not submitted this Project Work to any other university for the award of any degree.

Date:

Place: Gorakhpur

AMAR CHAUHAN

2019104009

ACKNOWLEDGEMENT

Apart from our effort, the success of this project work depends largely on the encouragement and guidelines of many.

We take this opportunity to express my gratitude to the people who have been instrumental in the successful completion of this technical seminar.

We express immense gratitude to my guide **Prof. R. K. Dwivedi**, Assistant Professor, Dept. of Information Technology &

Computer Application, for having extended his priceless technical expertise. We also thank for his patient thoughtful guidance

and also for his most generous support and encouragement towards the development of the mini project.

We express my sincere thanks to **Prof. Sarvpal Singh**, Professor and HOD, Dept. of Information Technology & Computer

Application, for his valuable encouragement and support in carrying out the project by providing all the facilities.

ABSTRACT

The **Library Management System** is an application for assisting a librarian in managing a book **library** in a university. The **system** would provide basic set of features to add/update members, add/update books, and manage check in specifications for the **systems** based on the client's statement of need.

The Library Management System stores the details like name, address, ID number, Date of Birth of members working in the library and users who come to library. The details of books like book name, book number, subject to which it belongs, author, edition, year of publication, the total number of books that are present in the library are also stored.

Library Management System in C++

Introduction:

This software project is a library management software system with all the basic as well as some innovative features for managing a library. It consists of a large database of various books available in the library. It also lists various books issued to respective readers. The system keeps track of all the books readily available and also the books that have been issued to various readers for the time period for which the books have been issued. The system also handles books database. If the reader needs a book, he can order the book request for home delivery by just submitting an online form. Readers usually tend to forget the date to return their library books, so this system even calculates fine depending on the expiry date. Thus this innovative library management system provides enhanced library functionality for this modern world.

Advantages:

- The system excludes the use of paper work by managing all the records electronically.
- Administrator doesn't have to keep a manual track of the users
- Also the system calculates the fine levied on user so admin just have to create bill and not manually calculate.
- Admin can keep updating the system by providing the new books arrival in library and their availability thus user need not to go to library for issuing purpose. He may order it online through this system.
- Thus, it saves human efforts and resources.

Disadvantages:

- User cannot view the book in person.
- There is no human interaction if users have some enquiry.

Applications:

- This system can be used in public libraries.
- It can also be implemented in the library of schools, colleges, institutes, and organizations.

Purpose:

The SRS typically contains the brief description of the project. The purpose of the requirement document is to specify all the information required to design, develop and test the software.

- The purpose of this project is to provide a friendly environment to maintain the details of books and library members.
- The main purpose of this project is to maintain easy circulation system using computers and to provide different reports.

Scope:

The document only covers the requirements specifications for the Library Management System. This document does not provide any references to the other component of the Library Management System. All the external interfaces and the dependencies are also identified in this document.

Feasibility study: The overall scope of the feasibility study was to provide sufficient information to allow a decision to be made as to whether the Library Management System project should proceed and if so, its relative priority in the context of other existing Library Management Technology.

Features of the system: -

- **Admin (Librarian) login:** The system will be under sole control of the admin. Admin can add or remove books from the system and also maintains records of the book available and issued in the library. The admin can even update the books details if required.
- **User (Student's) login:** User has to first create an account in the system to gain access. User can explore and search for the books he wants. He can place order for the books.

SYSTEM SPECIFICATION

Software Requirements:

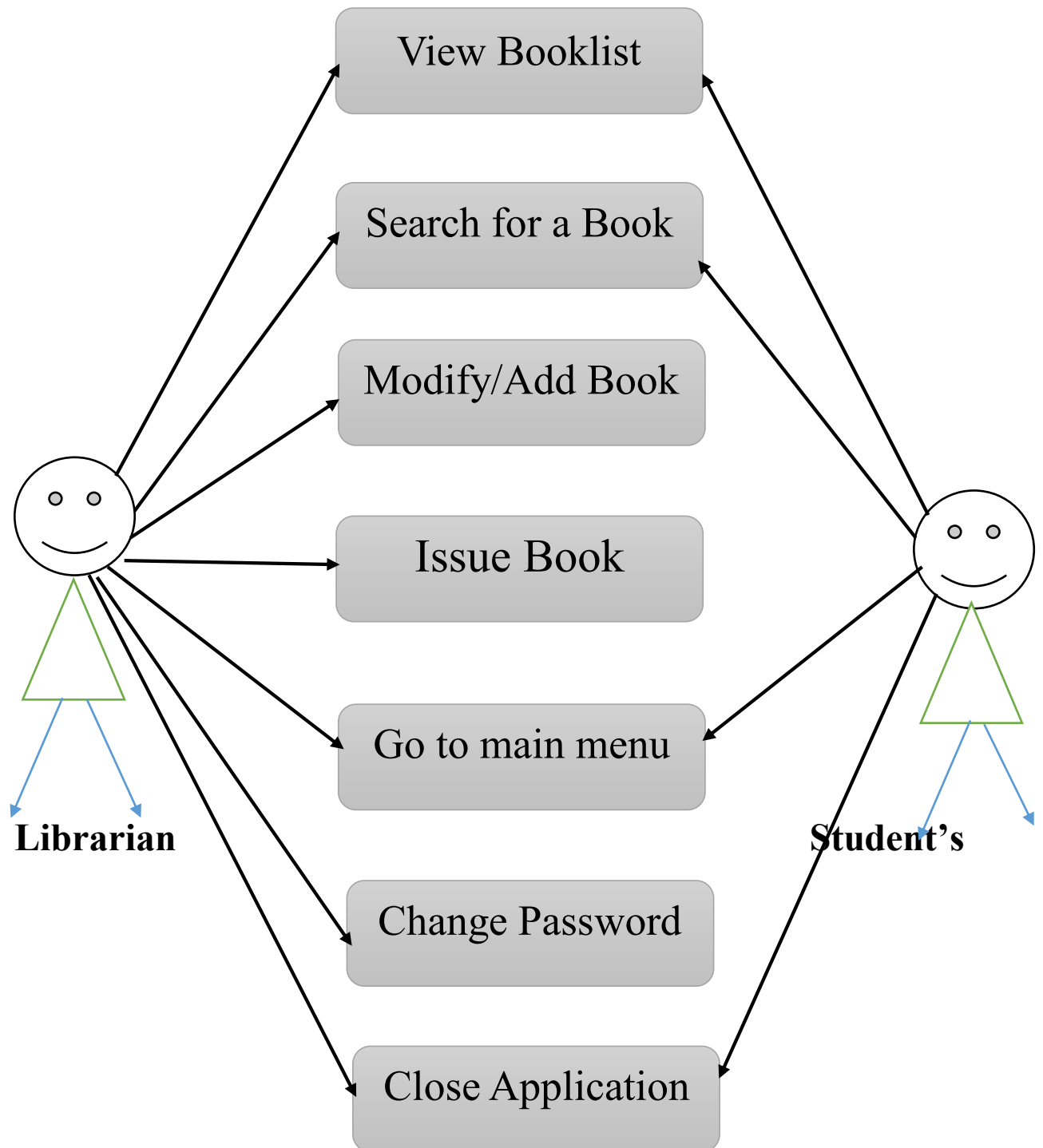
- Windows

Hardware Components:

- Processor – i3
- Hard Disk – 5 GB
- Memory – 1GB RAM

SYSTEM DESIGN

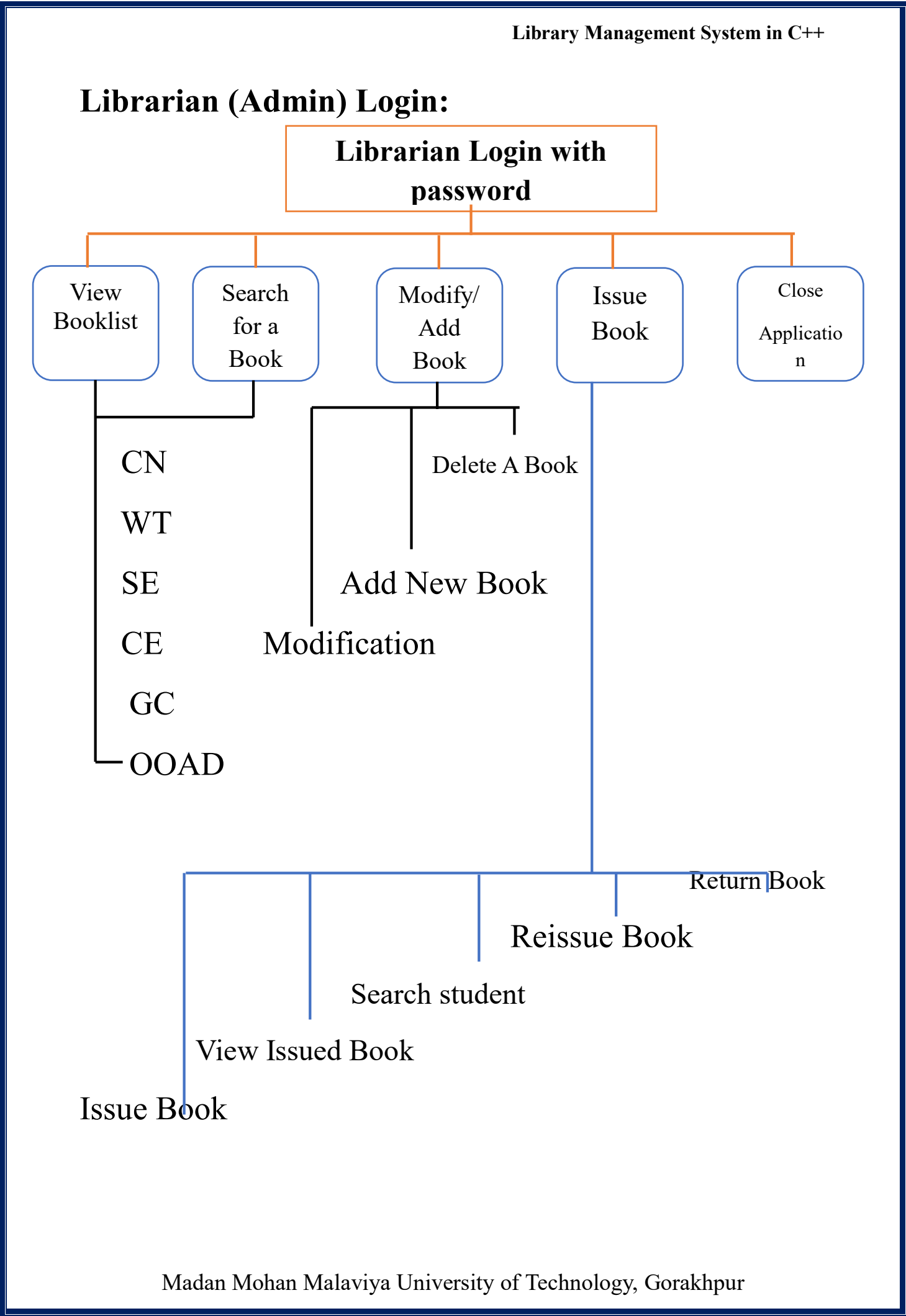
Use Case Diagram: Librarian and Student's Login




```

graph TD
    A[Librarian Login with password] --> B[View Booklist]
    A --> C[Search for a Book]
    A --> D[Modify/ Add Book]
    A --> E[Issue Book]
    A --> F[Close Application]
    B --> B1[CN]
    B --> B2[WT]
    B --> B3[SE]
    B --> B4[CE]
    B --> B5[GC]
    B --> B6[OOAD]
    D --> D1[Delete A Book]
    D --> D2[Add New Book]
    D --> D3[Modification]
    E --> E1[Issue Book]
    E --> E2[Search student]
    E --> E3[Reissue Book]
    E --> E4[Return Book]
    E --> E5[View Issued Book]

```



Student's Login without Password

View
Booklist

Search for a
Book

Close
Application

CN

WT

SE

CE

CG

OOAD

Etc.

Modules of Library Management System

- Add Book
- Add Member
- Modify Book
- Modify Member
- Delete Book
- Delete Member
- Issue Book
- Return Book

Software Used

Coding Language: C++

Thank You!