# LIBRARY MANAGEMENT SYSTEM

#### INTRODUCTION:

This project is about managing and storing book information according to the students' needs. This type of utility helps both students and librarian to keep a constant track and search of all the books available in the library, which allows both students and the admin.

This project gives us the complete information about the books present in the library in which we can search the name of the book and retrieve all details of books available in the library. We can issue the books to students and maintain record of What books, how many books are issued and remaining stock available in the library.

# Requirements

## **High Level Requirements:**

- Record Maintenance
- increase efficiency
- Simple and easy to Use

## Low level Requirements

If the admin tries to add a book then, admin should provide the details of:

- Book name
- Author name
- Price of book

Enter author name - to display all the books that are there in library When user tries to display books of a particular author then user.

## **SWOT Analysis**

## Strengths:

- Simple and easy to use
- Efficient Data Managment
- Increase number of access to library

## Weakness:

- Data is prone to cyber attacks
- System requires a high speed internet connection and a high speed data base.

## 5W's 1 H

#### WHo:

The Library Management System is used by students and staff.

#### What:

This Library Management System helps in maintaining a database which keeps record of all the books.

#### Where:

It is used in colleges, schools, and private organisation libraries.

# When:

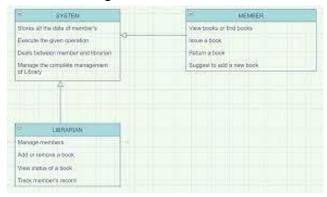
This Library Management System is very useful when there are large no of readers visit library to return, renewal, or take books

#### How:

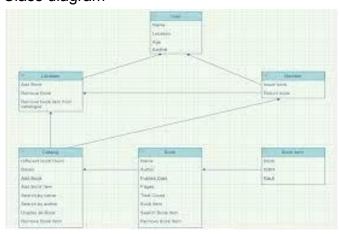
This project is implemented to do the book issuing, return, or renewal purpose by entering the student or faculty id as input.

# Architecture High level architecture

Use Case Diagram

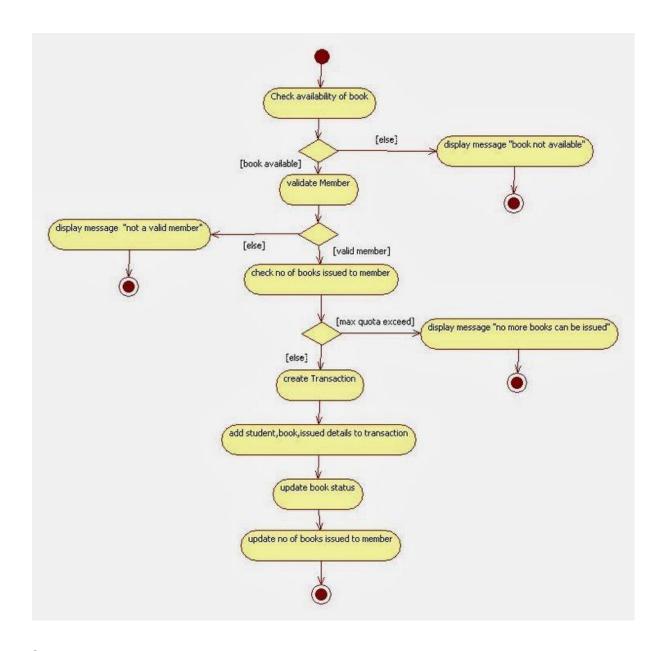


# Class diagram

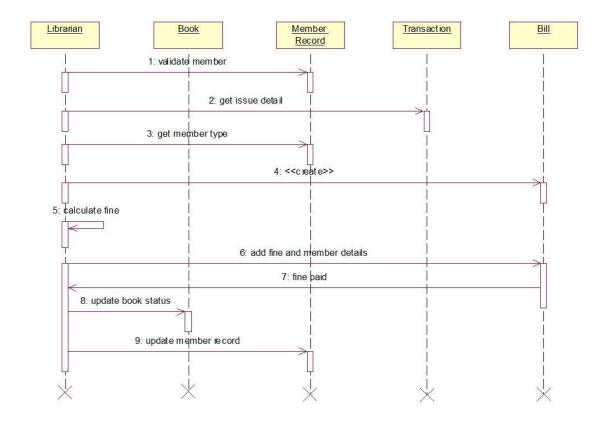


## Low level diagram

State diagram



Sequence diagram



## **OBJECTIVES:**

• a) To build a system that can receive input and generate automatic output in an easy way and short time.

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• b) To build a monitoring system that is able to monitor and manage all library operations efficiently.

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• c) Give an opportunity to librarians to reduce mistakes that always happen during manual method.

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• d) To store the library items in order to maintain their security.

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• e) To enter and preserve details of the various issues and keep a track on their returns.