LIBRARY MANAGEMENT SYSTEM

Software Requirement Specifications (SRS)

Version 1.0

B. Tech. (ECS 591)

Degree

BACHELOR OF TECHNOLOGY (CSE)

PROJECT GUIDE:	SUBMITTED BY:
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April, 2019

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Revision History

Author/ Changes made by	Date	Reason For Changes	Version
<Project Team Code>	DD-MM-YY	initial draft	1.0 draft 1
<Project Team Code>	DD-MM-YY	baseline following changes after inspection	1.0 approved

Approved by

Project Guide Name:

Ms. LUCKY RAJPUT

Signature:

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➢ Introduction

➢ Scope of the Work

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 record various transactions like issue of books, return of books, addition of new books, register of new students etc. Books and student maintenance modules are also included in this system which would keep track of the students using the library and also a detailed description 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.

➢ Definitions, Acronyms, and Abbreviations

JAVA -> platform independence

SQL-> Structured query Language

ER-> Entity Relationship

UML -> Unified Modeling Language

IDE-> Integrated Development Environment

SRS-> Software Requirement Specification

ISBN -> International Standard Book Number

IEEE ->Institute of Electrical and Electronics Engineers

➢ References

➢ Books

- Software Requirements and Specifications: A Lexicon of Practice, Principles and Prejudices (ACM Press) by Michael Jackson
- Software Requirements (Microsoft) Second Edition By Karl E.-Wiegers Software Engineering: A Practitioner's Approach Fifth Edition By Roger S. Pressman

➢ Websites

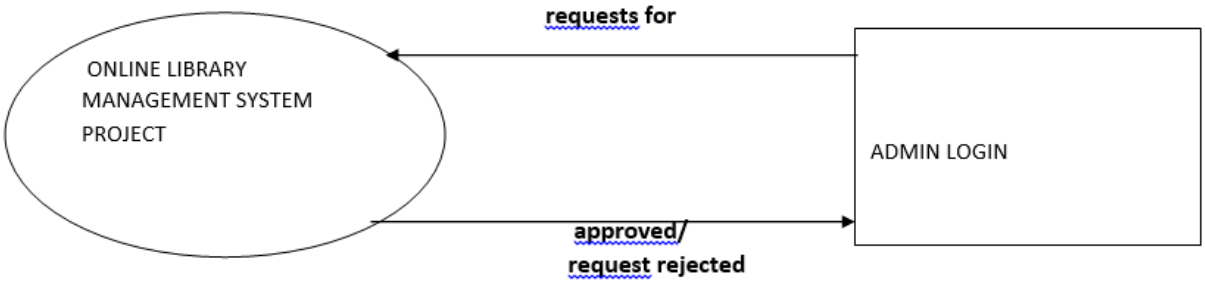
http://www.slideshare.net/

http://ebookily.net/doc/srs-library-management-system/

➢ Overall Description

➢ Product Perspective

This is a broad level diagram of the project showing a basic overview. The users can be either student or admin. This System will provide a search functionality to facilitate the search of resources. This search will be based on various categories for books. Further the student can issue books online from the system.



➢ Product Functions

The Online Library Management System provides online real time information about the books. The main purpose of this project is to reduce the manual work and paper work. This software is capable of managing records of books, returns, search, updates, add books. Generating various Reports for Record-Keeping according to end user requirements.

➢ User Characteristics

The admin of any library acts as controller of whole library system.

The features that are available to the Librarian are:-

- An admin can issue a book to the student.
- They can view the different categories of books available in the Library.
- They can view the List of books available in each category in the library.
- They can take the book returned from students.
- They can add books and their information to the database.

- They can check the report of the existing books.

The features that are available to the Members are:-

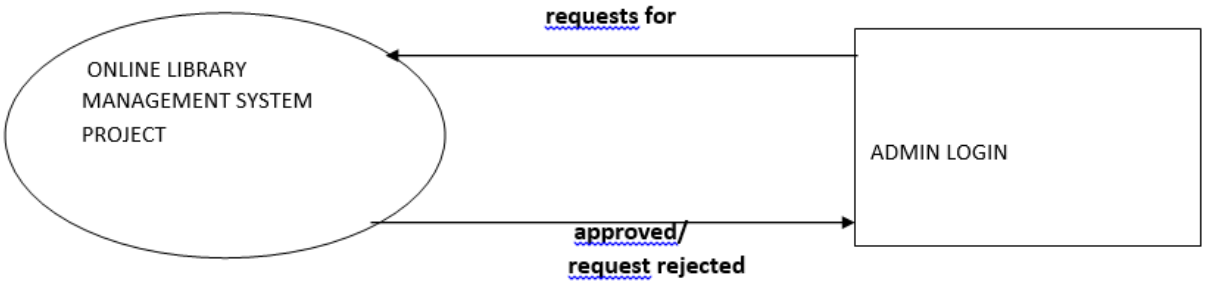
- Can view the different categories of books available in the Library
- Can view the List of books available in each category
- The features that are available to the Librarian are:-
- A librarian can issue a book to the member.

- **Assumptions and Dependencies**
  - The assumptions are:
  - The coding should be error- free.
  - The system should be user-friendly so that it is easy to use for the users.
  - The information of all users, seats and counter must be stored in a database that is accessible by the website.
  - The system should have more storage capacity and provide fast access to the database.
  - The system should provide search facility and support quick transactions.

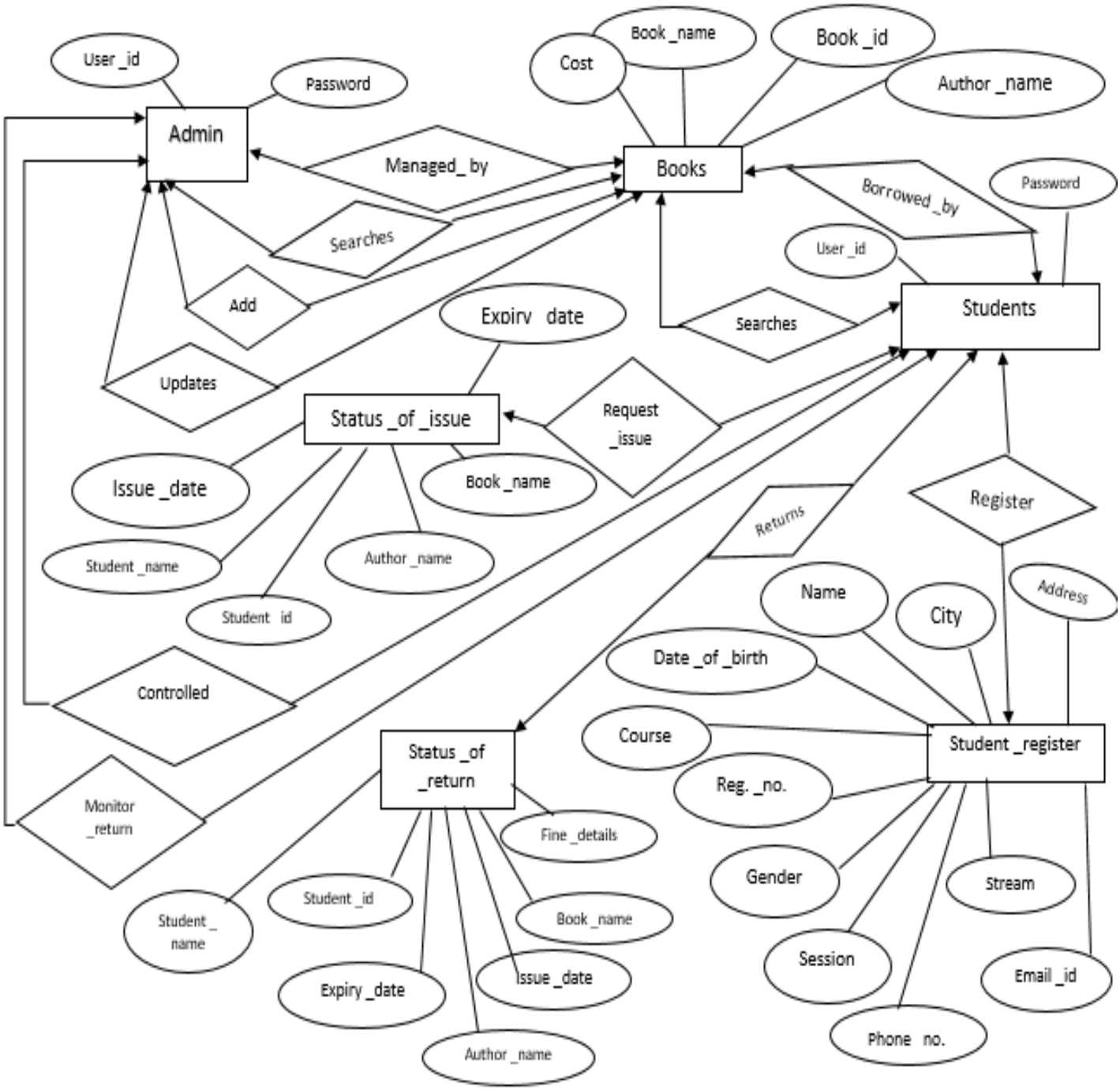
- **Specific Requirements**
  - This software platform is developed spending java as front end which is held by sun micro system. SQL oracle as the back end to store the database.
  - Operating System:
  - Windows NT, windows 98, Windows XP
  - Language: Java Runtime Environment, Java(front end)
  - Database: My SQL Server (back end)
  - Hardware Configuration: -
  - Processor: Pentium(R) Dual-core CP.
  - Hard Disk: 2GB RAM: 256 MB or more.

Appendix A

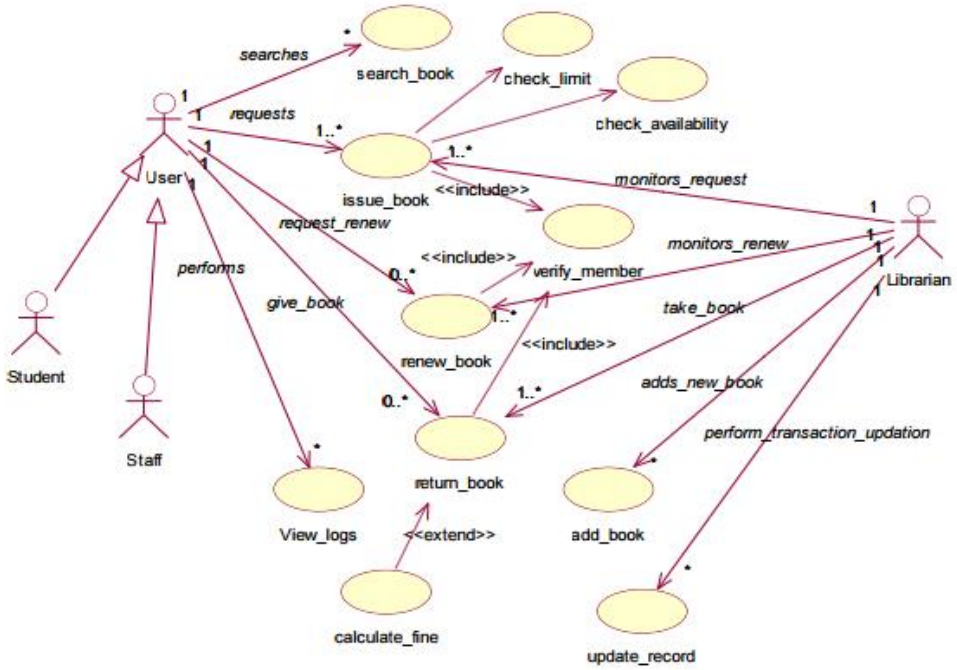
Data Flow Diagram (DFD)



Appendix B
Entity-Relationship Diagram (ERD)



Appendix C
Use-Case Diagram (UCD)



Appendix D
Data Dictionary (DD)
Example:

Admin Table

Fields	Data type	Description
User _id	Alphanumeric	Admin Id
Password	Alphanumeric	Admin password

Admin Table

Fields	Data type	Description
Name	Text	Librarian Name
Id	Number	Librarian Id
Address	Text	Librarian Address
Mob _ No.	Number	Librarian mobile No.

Book Table

Fields	Data type	Description
Book _Id	Alphanumeric	Book Id
Price	Number	Book price
Book _name	Text	Book Name
Author _name	Text	Book Author Name
Publication	Text	Book Publication
Quantity	Number	Quantity of Books
Issue _date	Date	Date of book issued
Expiry _date	Date	which date added of book

Issued Book:-

Fields	Data type	Description
Book _id	Alphanumeric	Book id Number
Student _Id	Alphanumeric	Student Enrollment Id
Student _Name	Text	Student Name
Due _date	Date	Due date of book
Issue _date	Date	Issued Date of Book

Appendix E
Screen Shots

Fig.:- Home Page

Fig.:-Mode of Selection page

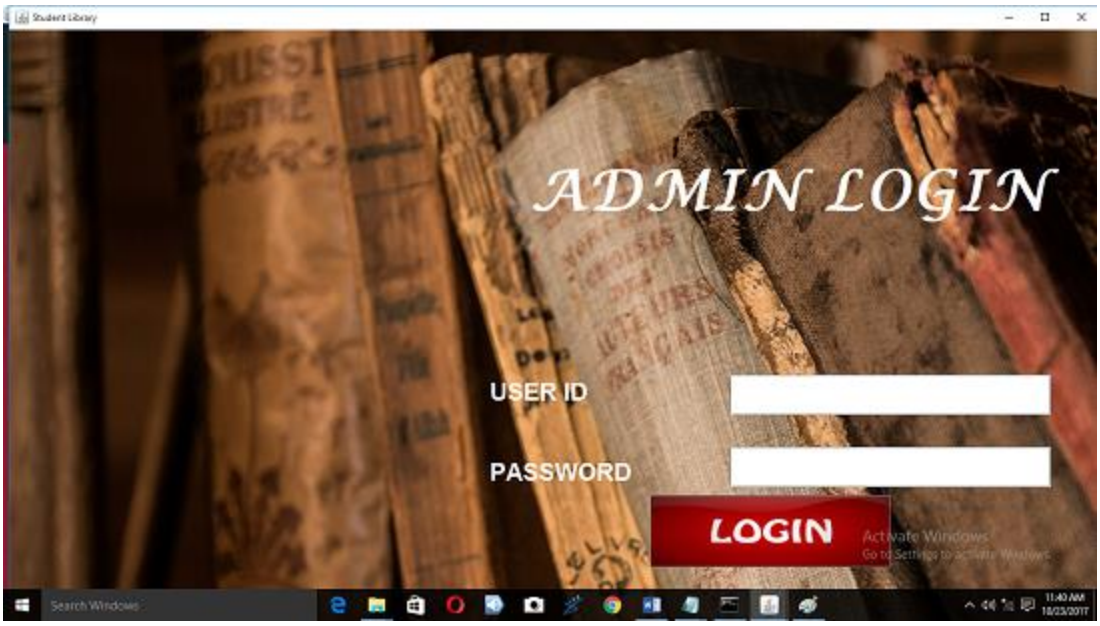


Fig.:-Admin login page

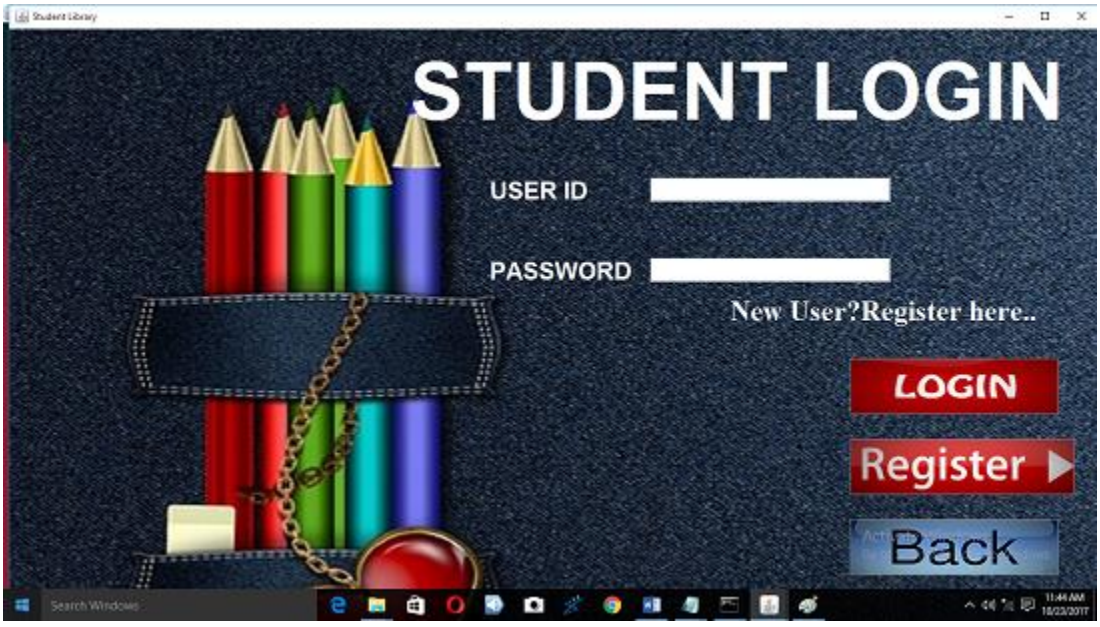


Fig.:-Student Login Page

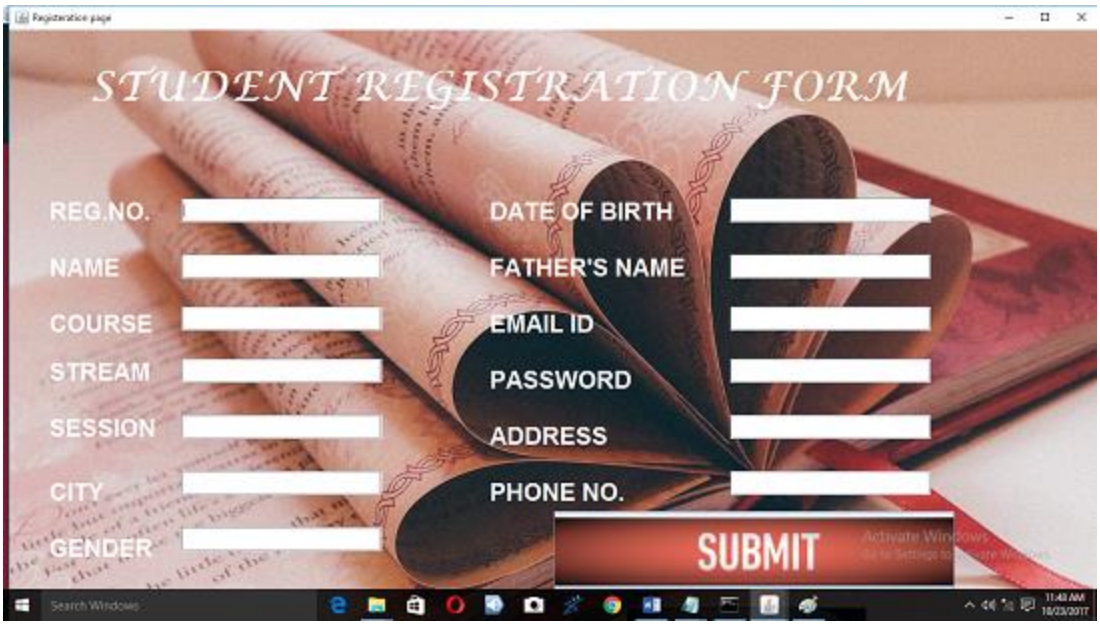


Fig.:-Student Register Page

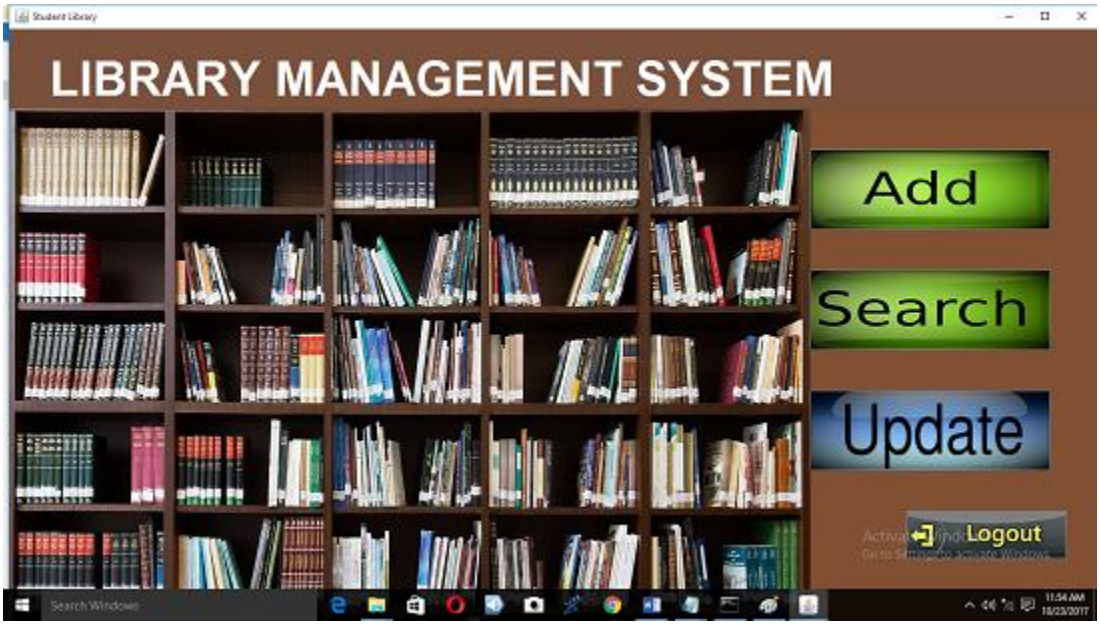


Fig.:-Admin Page

Fig.:-Admin Add Books Page

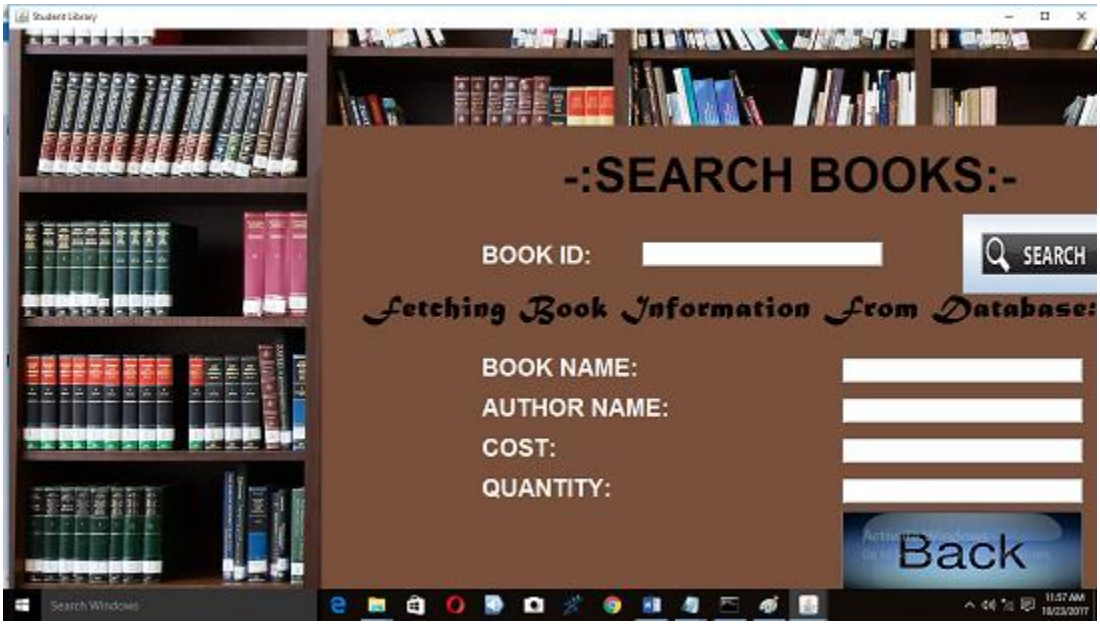


Fig.:-Admin Search Book Page

Fig.:-Admin Update Book Page

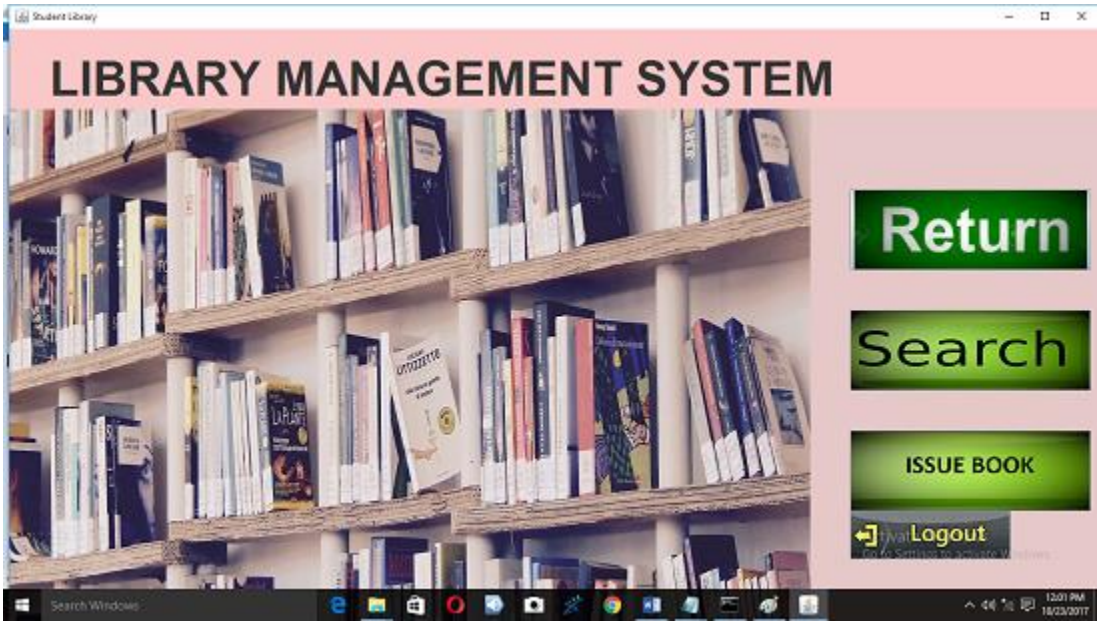


Fig.:-Student Page

Fig.:-Student Return Book Page

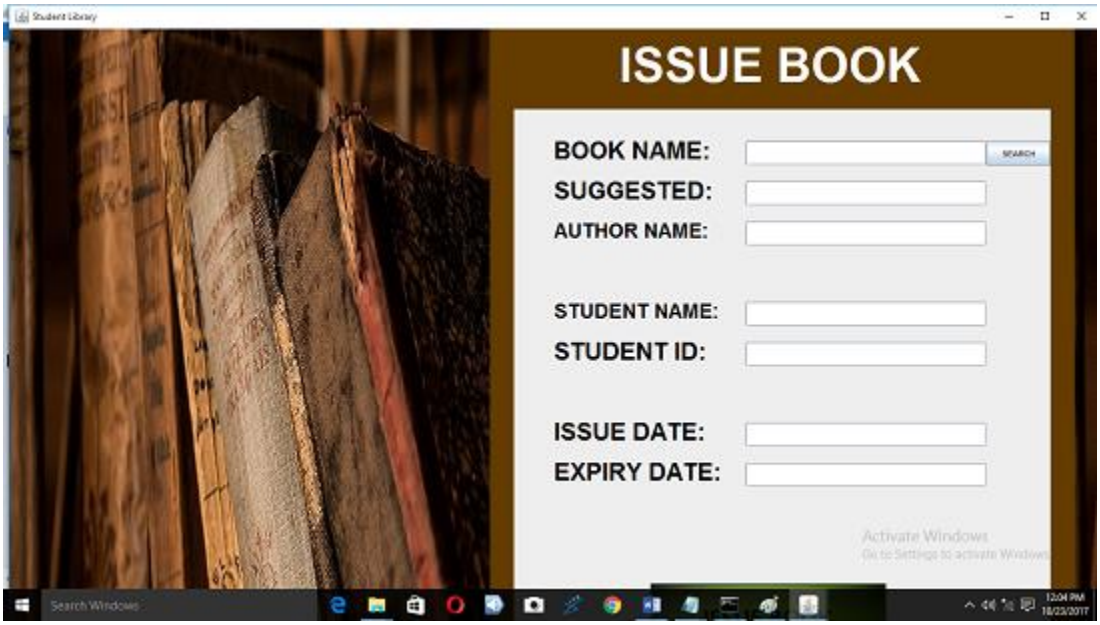


Fig.:-Student Issue Book Page

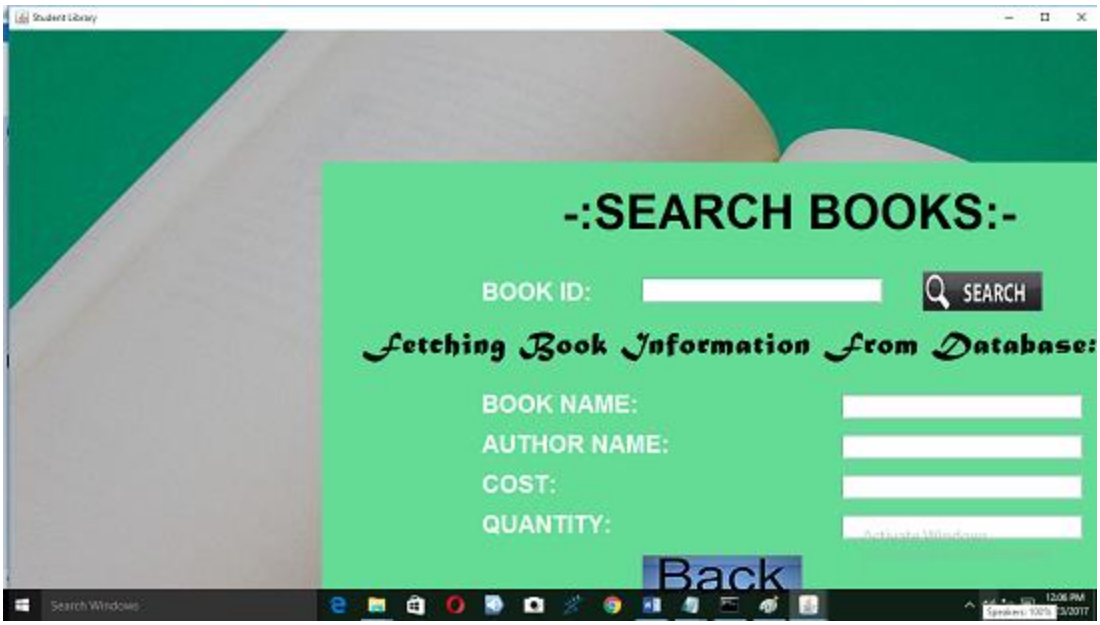


Fig.:-Student Search book Page