

Canadian Institute of Technology
Faculty of Engineering
Software Engineering Department

Library Management System

*A project submitted
in partial fulfillment of the requirements for the degree of
Bachelor Studies in Computer Engineering and IT*

by

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UNDERTAKING

This is to declare that the project entitled “Library Management System” is an original work done by the undersigned, in partial fulfillment of the requirements for the degree “Bachelor of Computer Engineering and IT”

All the analysis, design, and system development have been accomplished by the undersigned. Moreover, this project has not been submitted to any other college or university.

ABSTRACT

This project aimed to give a solution to the problems that libraries have nowadays with their book organization. My program helps them with adding new books, new members and for them to complete everything a library card does but online and in a more effective way.

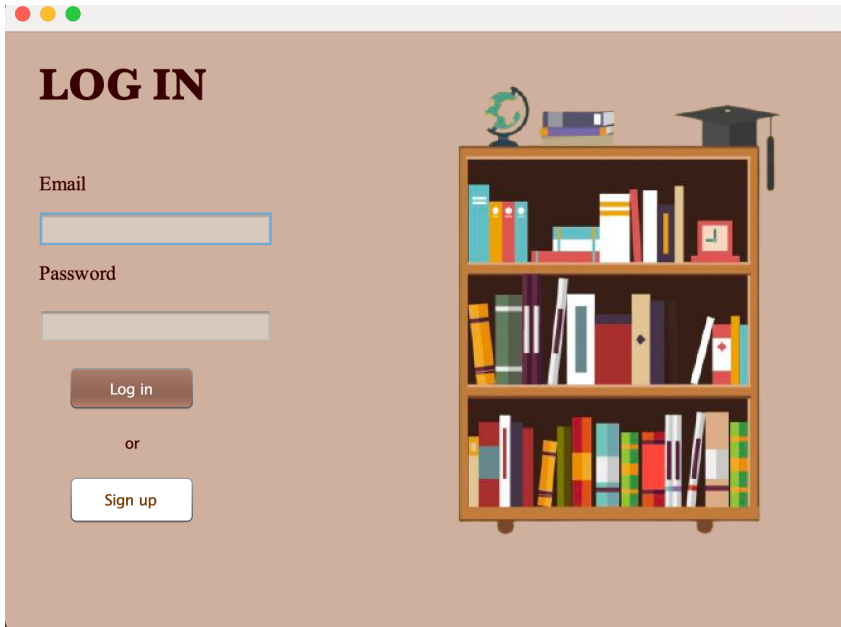
The methods used for the creation of this program are functions learned at this particular course, different websites, and information from books.

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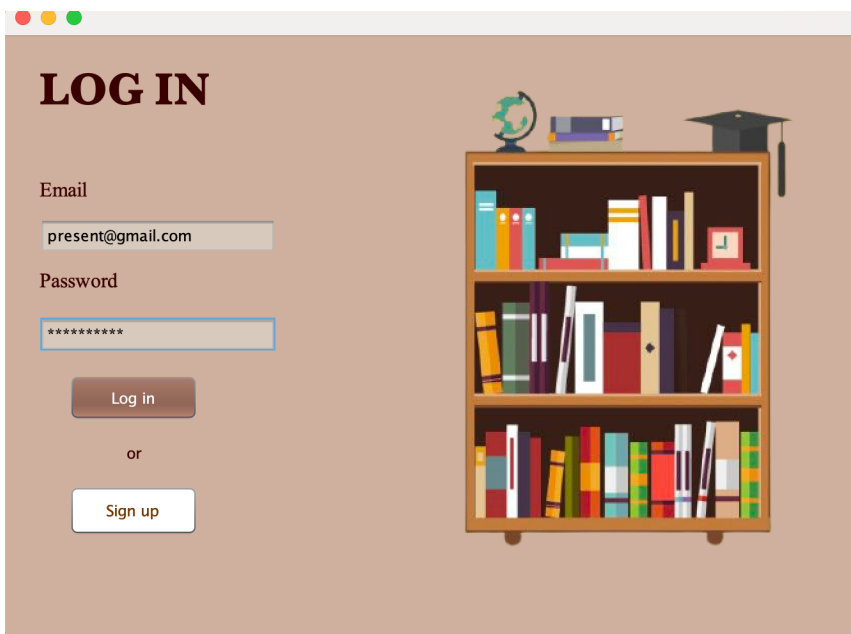
LIST OF TABLES

Table 1: data coming from the application**Error! Bookmark not defined.**



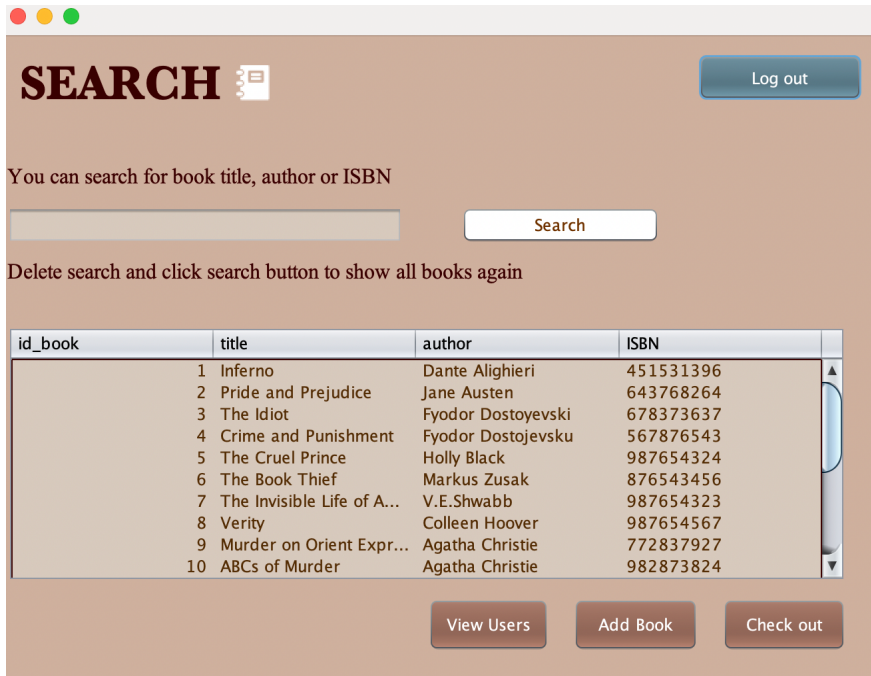
A screenshot of a web application's login page. The page has a light brown background. On the left, there is a 'LOG IN' section with two input fields: 'Email' and 'Password'. Below the 'Password' field is a 'Log in' button. Underneath the button is the word 'or', followed by a 'Sign up' button. To the right of the login section is a decorative illustration of a wooden bookshelf filled with books, a globe, and a graduation cap.


1. The log-in page where all registered users can enter the system.



A screenshot of the same web application's login page, but with the input fields filled. The 'Email' field contains the text 'present@gmail.com' and the 'Password' field contains a series of asterisks '*****'. The 'Log in' button, 'or' text, and 'Sign up' button are still visible below the input fields. The decorative bookshelf illustration remains on the right side of the page.

2. Login with the right credentials.



SEARCH 

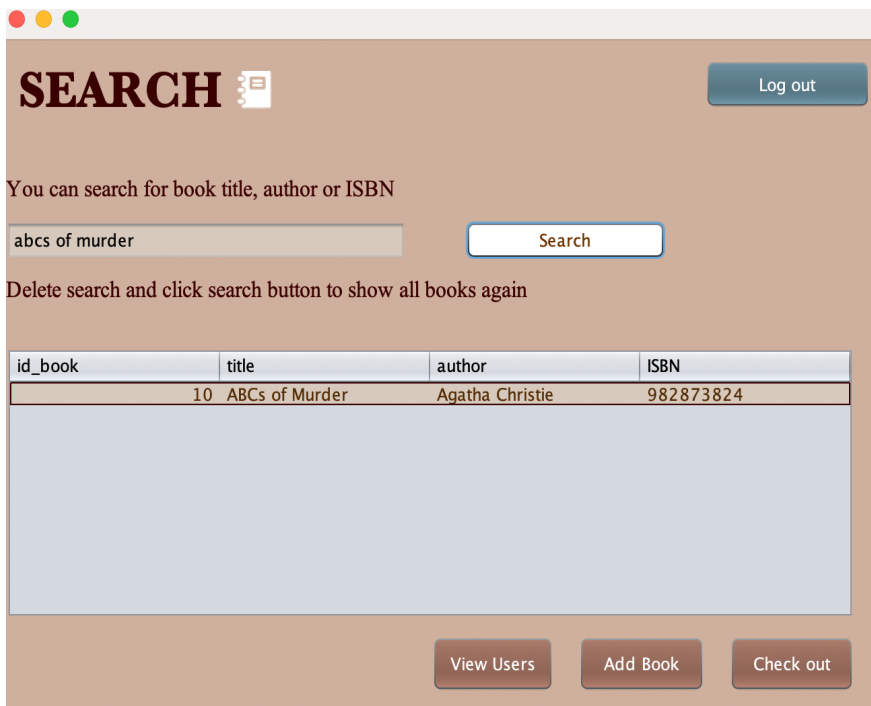
Log out


You can search for book title, author or ISBN

Delete search and click search button to show all books again

id_book	title	author	ISBN
1	Inferno	Dante Alighieri	451531396
2	Pride and Prejudice	Jane Austen	643768264
3	The Idiot	Fyodor Dostoyevski	678373637
4	Crime and Punishment	Fyodor Dostojevsku	567876543
5	The Cruel Prince	Holly Black	987654324
6	The Book Thief	Markus Zusak	876543456
7	The Invisible Life of A...	V.E.Shwabb	987654323
8	Verity	Colleen Hoover	987654567
9	Murder on Orient Expr...	Agatha Christie	772837927
10	ABCs of Murder	Agatha Christie	982873824

3. The Search Page in which you can search a book by the author, title, or its ISBN.



SEARCH 

Log out

You can search for book title, author or ISBN

abcs of murder

Delete search and click search button to show all books again

id_book	title	author	ISBN
10	ABCs of Murder	Agatha Christie	982873824

4. Here is a search by the title of the book and the book that is registered is on the table below the search bar.

USERS REGISTERED

id_user	fullname	email
1	Ben Ten	benten@yahoo.com
3	John	JohnKennedy@gmail.com
4	Adam	AdamSandler@yahoo.c...
5	Bill Gates	bill.gates@hotmail.com
6	Jef Bezos	jeffry@aol.com
7	Steve Jobs	stevejobs@icloud.com
8	John Cena	John2021@gmail.com
9	David Shmitz	daviddd2022@hotmail...
10	Madison Beer	maddy@yahoo.com
11	Irina Shayk	irishay@protonmail.com
12	Brad Pitt	bradddy@aol.com
13	Sheldon Cooper	seeshay@gmail.com
14	Sebastian Stan	sebstan@aol.com
16	Presentation Purpose	present@gmail.com
17	Dwight Schrute	dwight.sch@gmail.com
18	Klaus Beisner	klausbeisner@gmail.com

Back

5. By clicking on “View Users” on the Search Page, we end up on this page to see all the registered users.

ADD NEW BOOK

Title:

Author:

Genre:

ISBN:

Add

Back

6. By clicking on the “Add Book” button we see this page which allows us to add a new book to the library.

ADD NEW BOOK


Title:

Author:

Genre:

ISBN:

Message

 Data Inserted Successfully!

7. New Book added.

CHECK OUT

Book ID

Student ID

Check out date
* Date format should be DD/MM/YYYY

Return Date
*Return date must be 3 months after check out date!

8. This window appears when we click the “Check out” button on the search page and this page, we can check out a book using our ID which we find on the View Users page and the Book ID in the Search Page.

CHECK OUT


Book ID

Student ID

Check out date
* Date format should be DD/MM/YYYY

Return Date
*Return date must be 3 months after check out date!

Message

 Data Inserted Successfully!

9. Book Check out

REGISTER

Full Name

Email

Password

or



10. Register Page
if we are not
signed up.

1. Introduction

This project is called a Library Management System and it is software that gives ease to both the librarian and the library member.

Problems addressed are book organization by racks, genre, author, and title; user registration by name, email, password, and their check-out date as long as the return date of the book purchased.

2. Objective

The reason why I chose this topic is that this is a place where this program is most needed with all the mess and organization it has to go through. With this simple way of achieving it, the arrangement of books and users will be much simpler and easily accessible.

3. Functionalities

- It keeps track of the information registered about books, users, and check-out dates.
- Shows information about the above.
- Registers new users and logs in the previous ones.
- Search books according to their title, author, and ISBN.
- Checks out books.

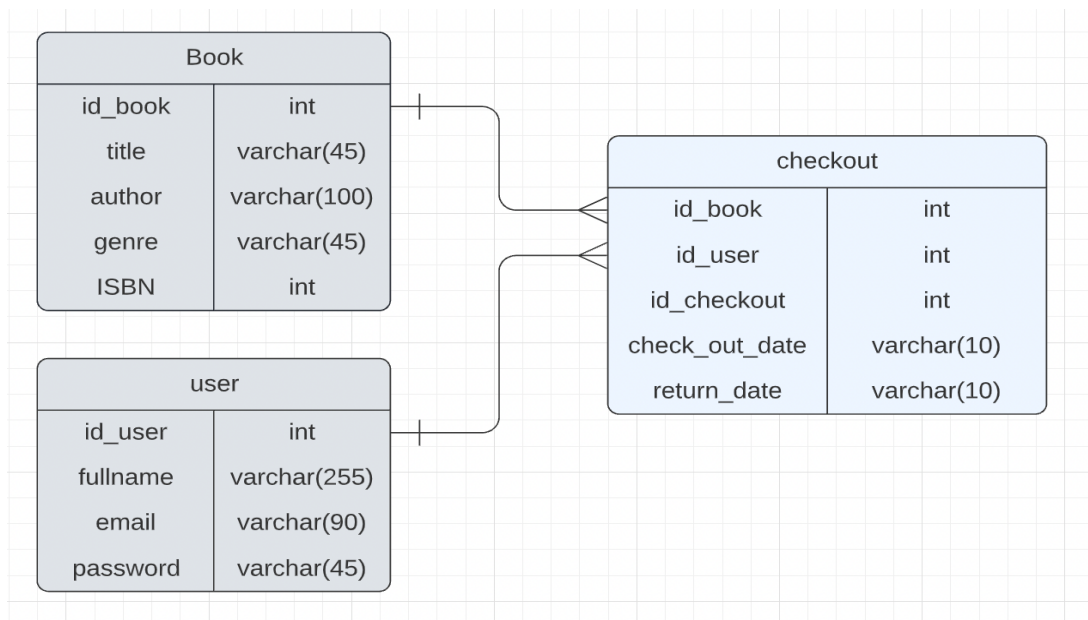
4. Software Requirements

Name of component	Specification
Operating system	Any operating system
Language	Java 2 runtime environment
Database	MySQL Server
Browser	Any browsers
Software development kit	Java JDK 1.7 or above
Scripting language enable	JSP
Database JDBC drive	MySQL Workbench/ Jconnector

5. Background

5.1 UML Diagrams (mandatory for the second-year student/optional for first-year students)

Figure 1: UML Class Diagram showing the relation between databases



6. Conclusion

This Java Application provides an application that will benefit all users and administrators of the library. It makes the entire process easier and more organized because of the user-friendly structure and all the solutions to every issue they may have related to book and user registration.

References

- [1] BTech. (20020). [Online Video]. Retrieved from <https://www.youtube.com/watch?v=sLs-2N5mAow&t=6870s>