

Library Management Application

Database Systems, Fall 2020

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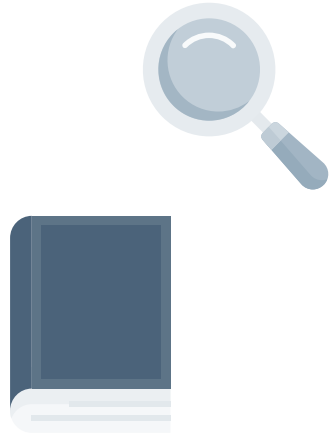
Github:

[https://github.com/rsanchez-macias/
CSE-111-Project](https://github.com/rsanchez-macias/CSE-111-Project)

System Description

Application with administrators and end users

- For administrator, provide tasks to easily manage a library (e.g. adding, deleting, and editing books)
- For end user, provide tasks to easily utilize library resources (e.g. check-out books, search books)



Implementation

- **Database**
 - Access managed by sqlite3 module
- **Backend**
 - Python Flask
- **Front-end**
 - HTML, CSS, and JS



Key Use Cases

For librarian and end user:

- To search books by different traits (author name, title, genre)



For end user:

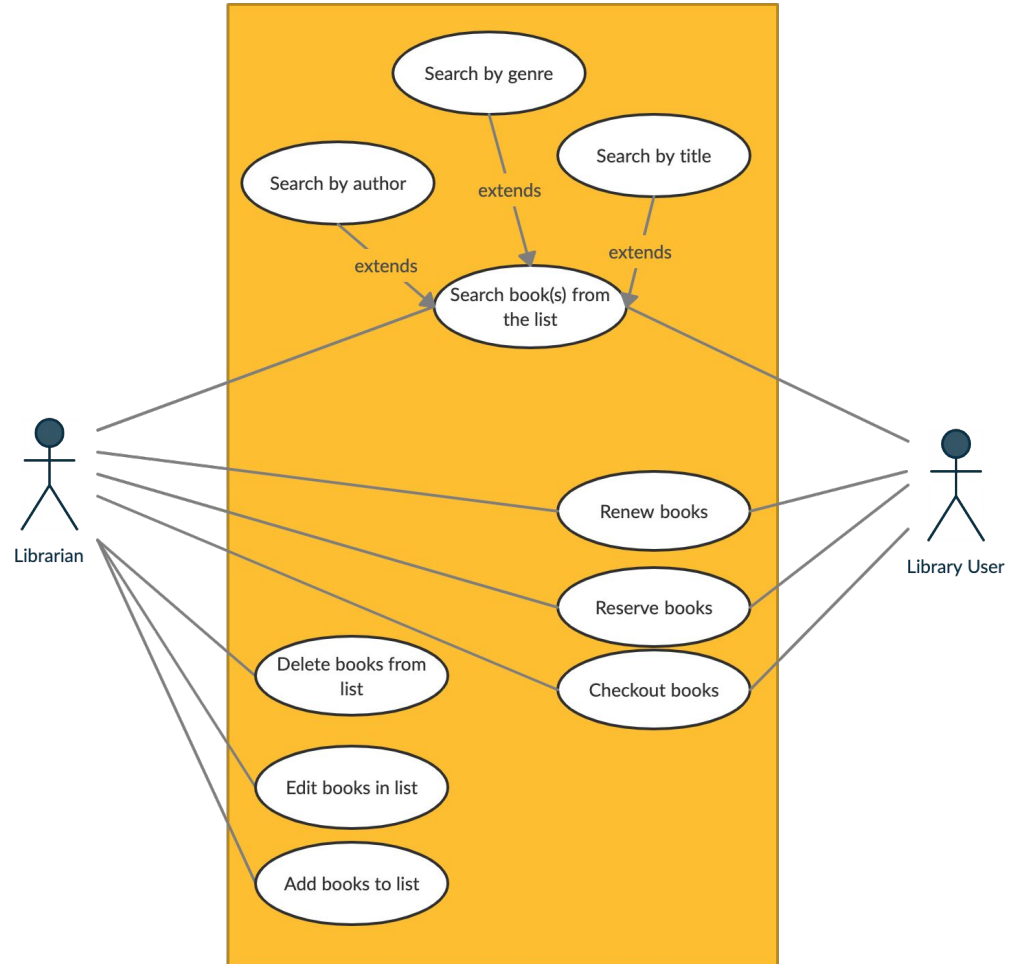
- Check-out books
- Reserve books if not available

For librarian:

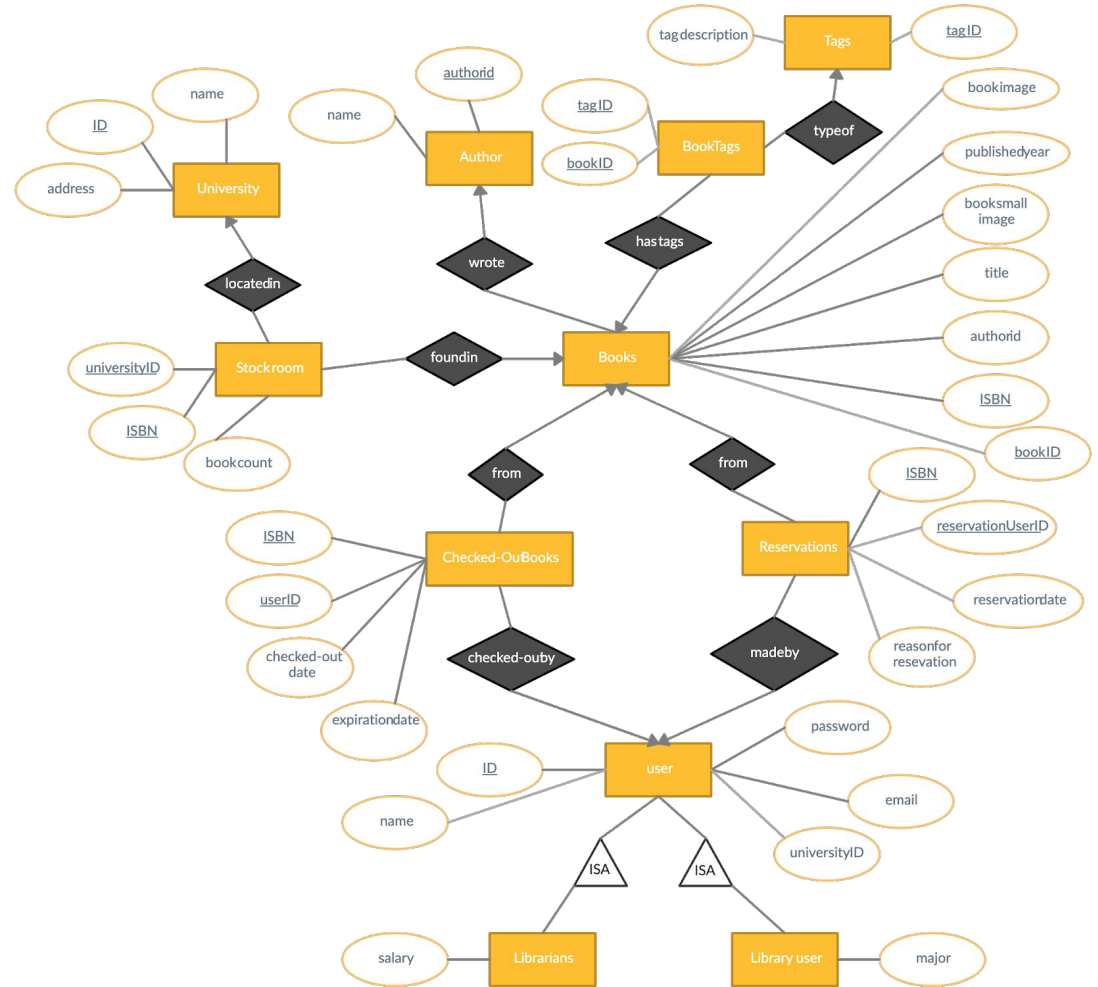
- Add, delete and edit books



User-Case Diagram



E/R Diagram



Relational Schema

Books:

- b_isbn, b_bookid, b_authorname, b_title, b_genre, b_publisheddate, b_small_img, b_image

University:

- uni_id, uni_name, uni_address

Users:

- u_userid, u_name, u_email, u_password, u_universityid

Library users:

- lu_userid, lu_major

Librarians

- l_userid, l_salary

Reservations:

- r_isbn, r_fromuserid, r_reason, r_reservationdate

Checked-out Books:

- cb_isbn, cb_userid, cb_checkeddate, cb_expirationdate

Authors:

- a_name, a_isbn, a_address

Stock room:

- s_universidtyid, s_isbn, s_bookcount

Tags:

- t_tagid, t_description

BookTags:

- bt_tagid, bt_bookid

Demo...


WELCOME STUDENT Pikachu!

UC Merced Books

Filter Book

Filter

Refresh

Book	Title
	Harry Potter: Film Wizardry
	The First Fifteen Lives of Harry August


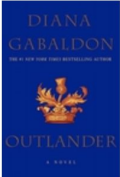
Hello Pikachu

[Account Info](#)

Checked Books

[Reserved Books](#)

Checked Books

Book	Book Info	Checked-out
	Book title: Evil at Heart ISBN: 230015913 Author: Chelsea Cain	Checked date: Expiration date:
	Book title: Outlander ISBN: 440242940 Author: Diana Gabaldon	Checked date: Expiration date:

Thanks!

Any questions?

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