Library Management Application*

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System Description

Application with administrator users and end users

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



Planned Implementation*

- Database
 - Supported by SQLAlchemy
- Backend
 - Python Flask
- Front-end
 - HTML and CSS





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:

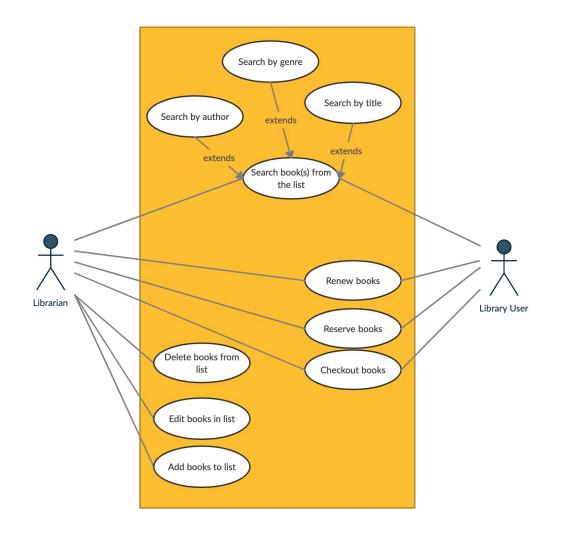
Add, delete and edit books



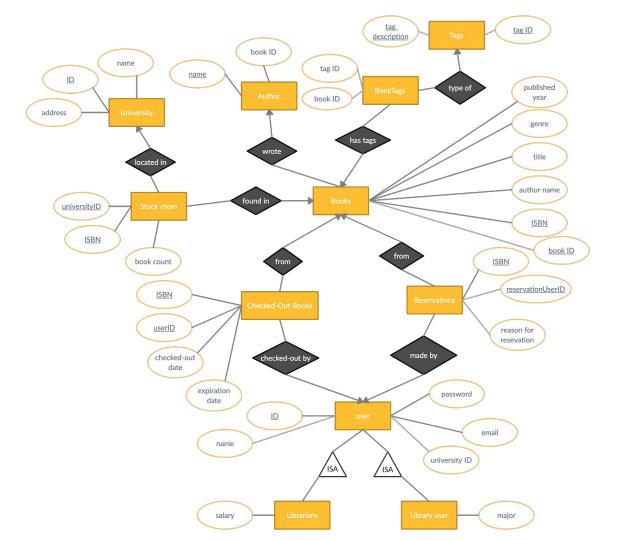




User-Case Diagram



E/R Diagram



Relational Schema

Books:

 <u>b_isbn</u>, <u>b_bookid</u>, b_authorname, b_title, b_genre, b_publisheddate

Checked-out Books:

 <u>cb_isbn</u>, <u>cb_userid</u>, cb_checkeddate, cb_experiationdate

Reservations:

• <u>r_isbn</u>, <u>r_fromuserid</u>, r_reason

Users:

 <u>u_userid</u>, u_name, u_email, u_password, u_universityid

Librarians

• <u>l_userid</u>, l_salary

Library users:

• <u>lu_userid</u>, lu_major

Authors:

• <u>a_name</u>, <u>a_isbn</u>, a_address

Stock room:

<u>s_universidtyid</u>, <u>s_isbn</u>, s_bookcount

University:

• <u>uni_id</u>, uni_name, uni_address

Tags:

• <u>t_tagid</u>, t_description

BookTags:

bt_tagid, bt_bookid

Thanks!

Any questions?

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