Cesar Gonzalez
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Team Retro Tigers [Project Group 28]
Project Name: Novel Pursuits
Project URL: https://cs340.picachosdesigns.com/
Citations Note: To view citations for non-original code, please view the file named "citations-and-sources-for-third-party-code.md" within the root of the project files.

a) **Executive Summary**

Novel Pursuits was initially conceived of as a customer facing database driven application, which would allow users to rent books and add books to a wish list, featuring a social network component that would allow users to send and receive friend requests. Becoming friends with another user would allow the users to see one another's rental and wish lists, and add items to their own lists.

After revisiting the project requirements and receiving feedback from our peers and ULAs we made a pretty major change to our project at this point: we shifted focus to the administrative side of Novel Pursuits.

We also realized that we hadn't really set out to solve a problem with our initial project conception. Why did Novel Pursuits need this database web application? What wasn't working that needed to be solved? Answering these questions helped inform the user experience we worked to build.

Our database design changed when peer feedback helped us understand that there was no need for the 1:1 relationships we had envisioned between Users and their Wish/Rental Lists. Instead we created an intersection table between Users and Books, that represented each list type. We also added a new entity User Roles, that allowed us to understand a user's authorization and access to certain pages in the web application.

These changes meant we prioritized an administrative view of the Users, User Roles, Books, Authors and Genres so that the Customer Care team could assist customers and move away from a costly third party database tool. We decided that the social network element of the project was out of scope so we moved away from that aspect and removed the User Relationships entity, but didn't abandon a customer facing view altogether. In the current iteration, you can login as a customer and manage your Rental List, Wish List and search for books to add to each list. This allowed us a way to incorporate inserting into the Rental List Books and Wish List Books tables.

User Roles also allowed us to incorporate authentication into the application. While this was not a project requirement, it's something the team added as an additional feature and to help differentiate between the two user experiences available in the application: Customer Care team member or Customer.

b) **Project Overview**

Novel Pursuits is a user centric book rental service that currently has 80,000 monthly subscribers and is growing rapidly in popularity. The service that Novel Pursuits provides includes a method for users to select up to two books that they will receive by mail at any given time. Novel Pursuits currently ships out between 150,000 - 200,000 books per month and the company customer care team, consisting of 18 employees, has been working with a costly third-party database software that presents a very bare bones web app to their customers.

As Novel Pursuits grows their business, they need to solve the problem of scaling their technology along with their user base, as well as providing new features to attract additional users. Novel Pursuits has received a new series of funding which will be used to build out their own proprietary database, and move away from the costly third party vendor their customer care team had been using up to this point.

Customer care team members need the ability to locate user accounts, edit user information, add new users, delete delinquent users, and view user wish lists and rental lists. They also need to be able to search for, edit and remove items in their book inventory as well as metadata for those books. Developing a database driven web application will allow the customer care team the ability to manage users and their rentals easily. Customer care team members at Novel Pursuits will have administrative access to the backend of this database in order to provide assistance to customers when they reach out.

Novel Pursuits would also like to provide customers with a quick way to search for books, the ability to wishlist these books on their personal account, and the ability to rent books easily through a web based interface.

A database driven website will allow users the ability to set up an account with the system. It will also allow customers to rent up to two books at a time, and the system will record which books they currently have rented. The system will also allow the user to create a wish list, which will be represented as a list of books, ordered by most recently added, which the user would like to rent. After a user elects to return one of their current rentals, the user can either search for a new book to rent using the system search or leverage the wishlist to rent their next book. If the user elects to use the wishlist to rent the next book, then that book will be removed from their wishlist.
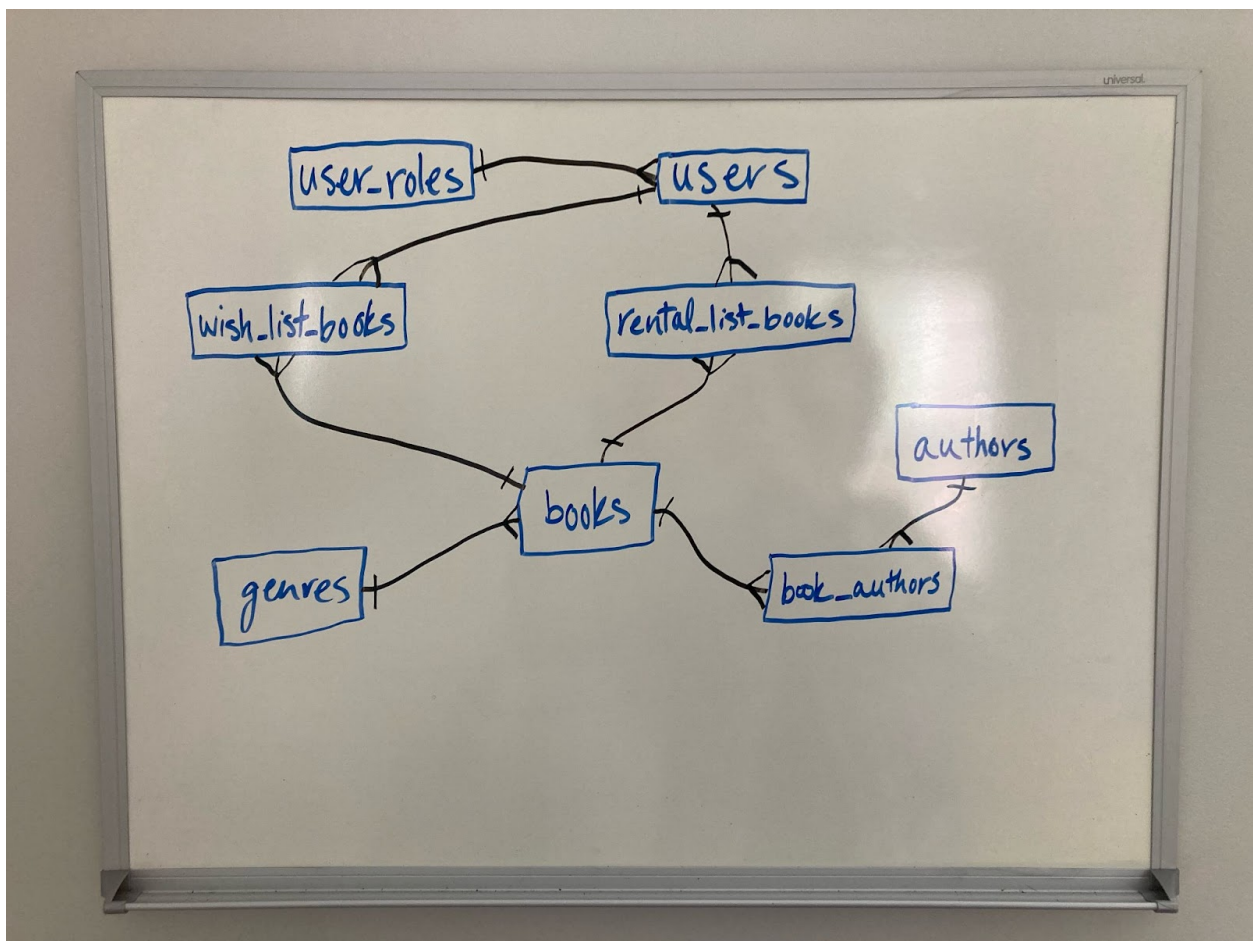
c) **Database Outline**

- **users** - Entity that defines users of the web application. This can include customers or administrators depending on the assigned user_role_id value.
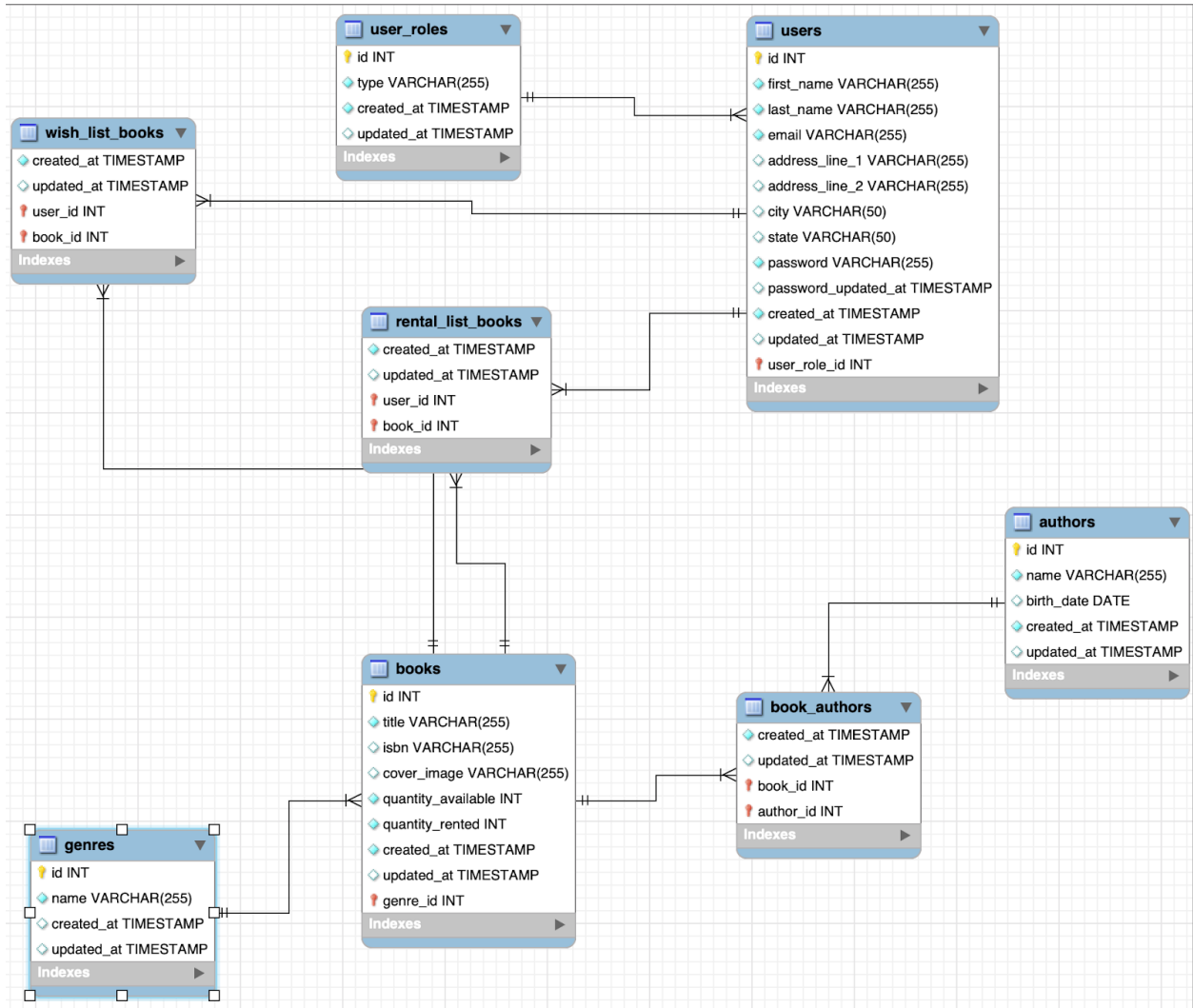   - *id* - integer | auto_increment | not NULL | primary_key

- *user_role_id* - integer | foreign_key | not NULL | on delete restrict
- *first_name* - varchar(255) | not NULL
- *last_name* - varchar(255) | not NULL
- *email* - varchar(255) | not NULL | unique
- *address_line_1* - varchar(255) | nullable
- *address_line_2* - varchar(255) | nullable
- *city* - varchar(50) | nullable
- *state* - varchar(50) | nullable
- *password* - varchar(255) | not NULL
- *password_updated_at* - timestamp | nullable
- *created_at* - timestamp | not NULL
- *updated_at* - timestamp | nullable
- Entity Relationships:
    - 1:M relationship between a user and rental_list_books
        - A user can have mental rental_list_books and a rental_list_books record belongs to one user
    - 1:M relationship between a user and wish_list_books
        - A user can have mental wish_list_books and a wish_list_books record belongs to one user
    - M:1 relationship between a user and a user_role
        - A user has only one user role, but a user_role can encompass many users
- **user_roles** - Entity that defines different roles that can be assigned to a user of the web application
    - *id* - integer | auto_increment | not NULL | primary_key
    - *type* - varchar(255) | not NULL | unique
    - *created_at* - timestamp | not NULL
    - *updated_at* - timestamp | nullable
    - Entity Relationships:
        - 1:M relationship between user_roles and users
            - A user_role can be assigned to many users, and users only have one user_role.
- **rental_list_books -** Entity that defines any books that are currently rented by a user entity.
    - *user_id* - integer | not NULL | foreign_key | on delete cascade
    - *books_id* - integer | not NULL | foreign_key | on delete cascade
    - *created_at* - timestamp | not NULL
    - *updated_at* - timestamp | nullable
    - *primary_key(user_id, book_id)*
    - Entity Relationships:
        - M:1 relationship between rental_list_books and users
            - A rental_list_books record belongs to one user, and that user can have many rental_list_books records

- **wish_list_books -** Entity that defines any books that are currently on the wish list of a user entity.
    - *user_id* - integer | not NULL | foreign_key | on delete cascade
    - *book_id* - integer | not NULL | foreign_key | on delete cascade
    - *created_at* - timestamp | not NULL
    - *updated_at* - timestamp | nullable
    - *primary_key(user_id, book_id)*
    - Entity Relationships:
        - M:1 relationship between wish_list_books and users
            - A wish_list_books record belongs to one user, and that user can have many wish_list_books records
- **books** - Entity that defines an individual book and all the attributes associated with that book
    - *id* - integer | auto_increment | not NULL | primary_key
    - *title* - varchar(255) | not NULL
    - *genre_id* - integer | not NULL | foreign_key | on delete restrict
    - *isbn* - varchar(20) | nullable
    - *cover_image* - varchar(255) | nullable
    - *quantity_available* - integer | not NULL
    - *quantity_rented* - integer | not NULL
    - *created_at* - timestamp | not NULL
    - *updated_at* - timestamp | nullable
    - Entity Relationships:
        - M:N relationship between a book and an author
            - A book can have many authors, an author can have many books
            - Facilitated through *book_authors* pivot table
        - M:1 relationship between a book and a genre
            - A book has a single genre, but a genre can encompass multiple books
- **book_authors -** Defines the relationship between a book and an author or authors that wrote the book
    - *book_id* - integer | not NULL | foreign_key | on delete cascade
    - *author_id* - integer | not NULL | foreign_key | on delete cascade
    - *created_at* - timestamp | not NULL
    - *updated_at* - timestamp | nullable
    - *primary_key(book_id, author_id)*
- **authors -** Entity that defines an individual author that can be assigned to a book
    - *id* - integer | auto_incrememnt | not NULL | primary_key
    - *name* - varchar(255) | not NULL
    - *birth_date* - date | not NULL
    - *created_at* - timestamp | not NULL
    - *updated_at* - timestamp | nullable
    - Unique constraint for this table:

- *name, birthdate* combination must be unique for each author to be added to the database. This allows us to handle authors with the same name.
- M:N relationship between an author and a book
  - An author can have many books, an book can have many authors
  - Facilitated through *book_authors* pivot table
- **genres -** Entity that defines a genre that can be assigned to a book
  - *id* - integer | auto_incrememnt | not NULL | primary_key
  - *name* - varchar(255) | not NULL | unique
  - *created_at* - timestamp | not NULL
  - *updated_at* - timestamp | nullable
    - 1:M relationship between a genre and a book
      - A genre can encompass many books, but a book can only have one genre.

d) **Entity-Relationship Diagram**

user_roles
- 🔑 id INT
- ◇ type VARCHAR(255)
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- Indexes ▶

users
- 🔑 id INT
- ◇ first_name VARCHAR(255)
- ◇ last_name VARCHAR(255)
- ◇ email VARCHAR(255)
- ◇ address_line_1 VARCHAR(255)
- ◇ address_line_2 VARCHAR(255)
- ◇ city VARCHAR(50)
- ◇ state VARCHAR(50)
- ◇ password VARCHAR(255)
- ◇ password_updated_at TIMESTAMP
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- 🔑 user_role_id INT
- Indexes ▶

wish_list_books
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- 🔑 user_id INT
- 🔑 book_id INT
- Indexes ▶

rental_list_books
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- 🔑 user_id INT
- 🔑 book_id INT
- Indexes ▶

authors
- 🔑 id INT
- ◇ name VARCHAR(255)
- ◇ birth_date DATE
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- Indexes ▶

books
- 🔑 id INT
- ◇ title VARCHAR(255)
- ◇ isbn VARCHAR(255)
- ◇ cover_image VARCHAR(255)
- ◇ quantity_available INT
- ◇ quantity_rented INT
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- 🔑 genre_id INT
- Indexes ▶

book_authors
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- 🔑 book_id INT
- 🔑 author_id INT
- Indexes ▶

genres
- 🔑 id INT
- ◇ name VARCHAR(255)
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- Indexes ▶

e) Schema

PHPMyAdmin:

f) **Sample Data**

authors:

```
+------+-------------------+------------+---------------------+------------+
| id   | name              | birth_date | created_at          | updated_at |
+------+-------------------+------------+---------------------+------------+
|    1 | Adiana Pavlishchev| 2020-07-11 | 2022-04-28 09:04:13 | NULL       |
|    2 | Perren Benzi      | 2020-11-16 | 2022-04-28 09:04:13 | NULL       |
|    3 | Berne Yele        | 2019-03-22 | 2022-04-28 09:04:13 | NULL       |
|    4 | Robbi Feild       | 2020-01-06 | 2022-04-28 09:04:13 | NULL       |
|    5 | Thomasin Seakin   | 2019-08-11 | 2022-04-28 09:04:13 | NULL       |
+------+-------------------+------------+---------------------+------------+
```

book_authors:

+----------+------------+---------------------+------------+
| book_id | author_id | created_at | updated_at |
+----------+------------+---------------------+------------+
1	1	2022-04-28 09:04:13	NULL
1	2	2022-04-28 09:04:13	NULL
2	3	2022-04-28 09:04:13	NULL
3	3	2022-04-28 09:04:13	NULL
4	5	2022-04-28 09:04:13	NULL
5	1	2022-04-28 09:04:13	NULL
6	2	2022-04-28 09:04:13	NULL
7	5	2022-04-28 09:04:13	NULL
8	4	2022-04-28 09:04:13	NULL
9	1	2022-04-28 09:04:13	NULL
9	5	2022-04-28 09:04:13	NULL
10	2	2022-04-28 09:04:13	NULL
+----------+------------+---------------------+------------+

books:

id	title	genre_id	isbn	cover_image	quantity_available	quantity_rented	created_at	updated_at
1	lobortis vel dapibus at diam nam tristique tortor eu	4	488010340-3	http://dummyimage.com/220x.png/dddddd/000000	13	10	2022-04-28 09:04:13	NULL
2	bibendum imperdiet nullam orci pede venenatis non sodales sed	1	255899754-8	http://dummyimage.com/167x.png/5fa2dd/ffffff	15	9	2022-04-28 09:04:13	NULL
3	nisi venenatis tristique fusce	3	930917083-2	http://dummyimage.com/222x.png/cc0000/ffffff	17	11	2022-04-28 09:04:13	NULL
4	aliquet massa id lobortis convallis tortor risus dapibus augue	2	064063105-3	http://dummyimage.com/234x.png/ff4444/ffffff	17	3	2022-04-28 09:04:13	NULL
5	nulla ultrices aliquet maecenas	4	941228042-4	http://dummyimage.com/160x.png/ff4444/ffffff	14	9	2022-04-28 09:04:13	NULL
6	nulla quisque arcu libero rutrum	4	711009564-9	http://dummyimage.com/153x.png/ff4444/ffffff	20	7	2022-04-28 09:04:13	NULL
7	in leo maecenas pulvinar lobortis est phasellus	3	588823922-4	http://dummyimage.com/203x.png/cc0000/ffffff	17	10	2022-04-28 09:04:13	NULL
8	quisque ut erat curabitur gravida nisi at	5	810394541-2	http://dummyimage.com/182x.png/dddddd/000000	13	6	2022-04-28 09:04:13	NULL
9	auctor gravida sem praesent id	3	363704582-6	http://dummyimage.com/209x.png/ff4444/ffffff	15	11	2022-04-28 09:04:13	NULL
10	in est risus auctor sed tristique in tempus sit	1	663570720-4	http://dummyimage.com/218x.png/5fa2dd/ffffff	12	11	2022-04-28 09:04:13	NULL

genres:

+------+-----------+---------------------+------------+
| id | name | created_at | updated_at |
+------+-----------+---------------------+------------+
1	Non-Ficton	2022-04-28 09:04:13	NULL
2	Fiction	2022-04-28 09:04:13	NULL
3	Horror	2022-04-28 09:04:13	NULL
4	Comedy	2022-04-28 09:04:13	NULL
5	Drama	2022-04-28 09:04:13	NULL
+------+-----------+---------------------+------------+

rental_list_books:

user_id	book_id	created_at	updated_at
6	2	2022-04-28 09:04:13	NULL
6	9	2022-04-28 09:04:13	NULL
7	6	2022-04-28 09:04:13	NULL
7	9	2022-04-28 09:04:13	NULL
8	3	2022-04-28 09:04:13	NULL
8	7	2022-04-28 09:04:13	NULL
9	2	2022-04-28 09:04:13	NULL
9	5	2022-04-28 09:04:13	NULL
10	6	2022-04-28 09:04:13	NULL
10	10	2022-04-28 09:04:13	NULL

wish_list_books:

user_id	book_id	created_at	updated_at
6	3	2022-04-28 09:04:13	NULL
6	4	2022-04-28 09:04:13	NULL
7	10	2022-04-28 09:04:13	NULL
8	2	2022-04-28 09:04:13	NULL
8	6	2022-04-28 09:04:13	NULL
8	10	2022-04-28 09:04:13	NULL
9	1	2022-04-28 09:04:13	NULL
9	3	2022-04-28 09:04:13	NULL
9	4	2022-04-28 09:04:13	NULL
9	7	2022-04-28 09:04:13	NULL
10	1	2022-04-28 09:04:13	NULL
10	3	2022-04-28 09:04:13	NULL
10	5	2022-04-28 09:04:13	NULL
10	8	2022-04-28 09:04:13	NULL

users:

id	user_role_id	first_name	last_name	email	address_line_1	address_line_2	city	state	password	password_updated_at	created_at	updated_at
1	1	Admin	User	admin@admin.com	6 Farwell Trail	NULL	New York City	New York	a3b8d72264c6d0b156bdd5aae509b3a8:ca4cb82dfaa990ec76f4f0fd61a6b321	NULL	2022-06-06 11:49:41	NULL
2	4	Saba	Bainton	customer@customer.com	1771 Scoville Street	NULL	Jacksonville	Florida	778745835ebf5abdc5c570c43b4474af7:a2dba8c7e0b0fd1e55000659b24ec41dd5028438280493ed54a378590f94eba7	NULL	2022-06-06 11:49:41	NULL
3	1	Kerry	Wybern	kwybern0@paginegialle.it	24448 Stang Street	Suite 3	Lancaster	Pennsylvania	1879bdd34b8d36775f61b6ca01f7b74a:e28471bc3eaa001fd06d47b6463dc5a4	NULL	2022-06-06 11:49:41	NULL
4	3	Christye	Vinck	cvinck1@washington.edu	188 Tennyson Plaza	NULL	Reno	Nevada	ad0a88884298484d4f2929c86d18d593ce:894e2bd0102b0c575fbabe63ae5a68c2	NULL	2022-06-06 11:49:41	NULL
5	2	Gwenni	Preece	gpreece2@seesaa.net	4 Melody Plaza	Apartment 4	Denver	Colorado	1879bdd34b8d36775f61b6ca01f7b74a:e28471bc3eaa001fd06d47b6463dc5a4	NULL	2022-06-06 11:49:41	NULL
6	2	Glennis	Spours	gspours3@sohu.com	21 Memorial Crossing	NULL	Sacramento	California	7ddbcab91e741b53d19bbf1c59b31093:77c7626f92880c4068a5a694c03a1aef	NULL	2022-06-06 11:49:41	NULL
7	4	Maxine	Kiellor	mkiellor5@amazon.co.jp	347 Kropf Drive	Suite 451	Memphis	Tennessee	ad0a88884298484d4f2929c86d18d593ce:894e2bd0102b0c575fbabe63ae5a68c2	NULL	2022-06-06 11:49:41	NULL
8	4	Deerdre	Van Bruggen	dvanbruggen7@soup.io	371 Lindbergh Road	NULL	Atlanta	Georgia	1879bdd34b8d36775f61b6ca01f7b74a:e28471bc3eaa001fd06d47b6463dc5a4	NULL	2022-06-06 11:49:41	NULL
9	4	Waverly	Wellbeloved	wwellbeloved8@sogou.com	096 Coleman Trail	NULL	Oklahoma City	Oklahoma	ad0a88884298484d4f2929c86d18d593ce:894e2bd0102b0c575fbabe63ae5a68c2	NULL	2022-06-06 11:49:41	NULL
10	4	Pauly	Guidotti	pguidotti9@ucoz.ru	49 Debs Center	NULL	Grand Rapids	Michigan	7ddbcab91e741b53d19bbf1c59b31093:77c7626f92880c4068a5a694c03a1aef	NULL	2022-06-06 11:49:41	NULL
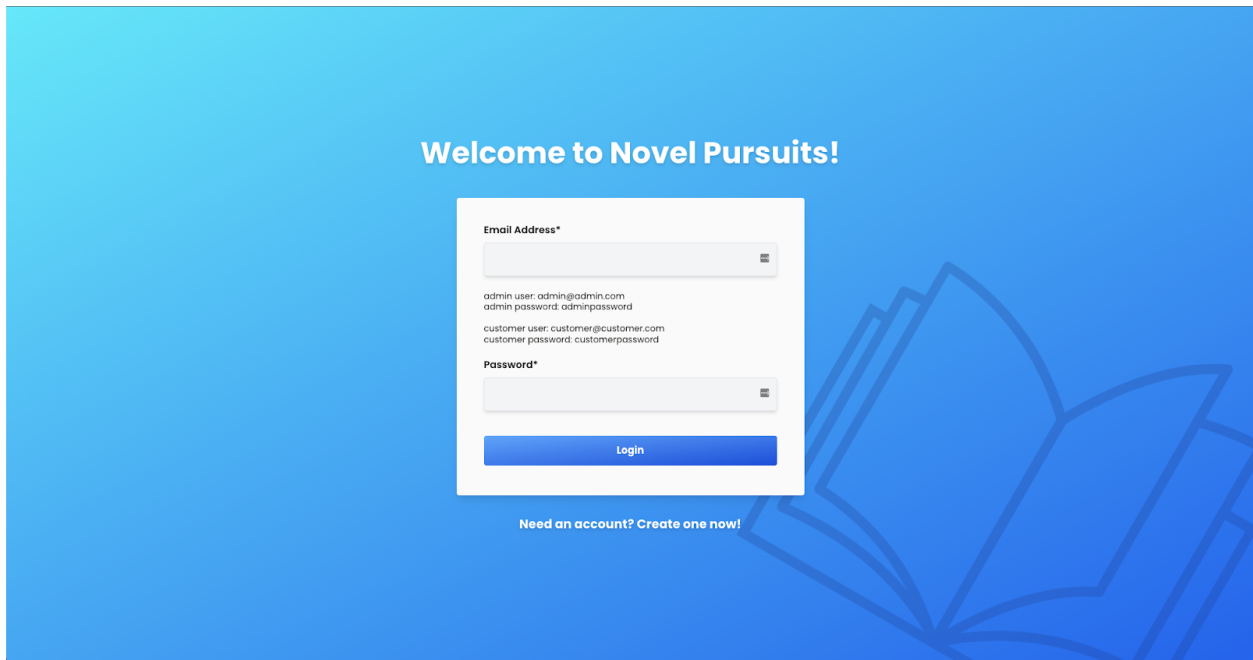
user_roles:

id	type	created_at	updated_at
1	admin	2022-04-28 09:04:13	NULL
2	manager	2022-04-28 09:04:13	NULL
3	sales	2022-04-28 09:04:13	NULL
4	customer	2022-04-28 09:04:13	NULL

g) **Screen Captures of Each of the UI Pages**

User Login (https://cs340.picachosdesigns.com/) - Read/Browse
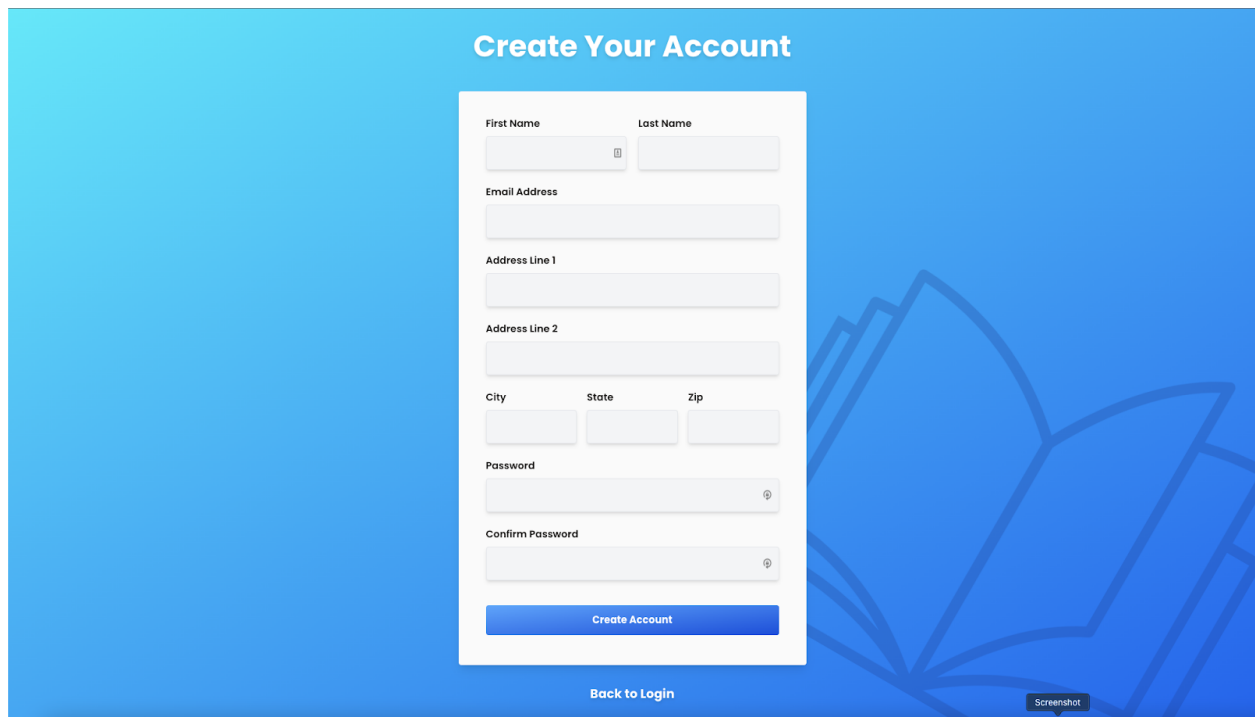
This page mainly checks user authentication against a password and encrypted email. If the user exists, a cookie is stored within the user browser for future sessions. If not, the user is notified that they could not log in.

User Registration (/register) - Create/Insert User Entity

Customer Rentals and WishList Page (/my-books) - Read/Browse Rentals and Wish Lists - Create/Insert Rentals and Wish Lists

This route allows the user to set up the M:N relationships between a User and a rental list or a wish list. Logic checks are put in place to ensure the user cannot rent more than three items.

My Books

Currently Rented Books
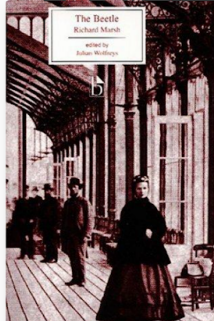
Title: The Beetle
Author: Richard Marsh
Genre: Horror
Date Rented: June 6th, 2022
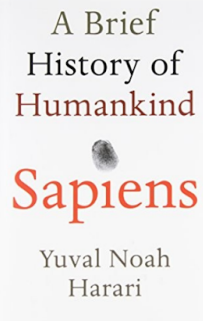
Return Book

Title: Sapiens
Authors: Yuval Noah Harari, Giuseppe Bernardi, David Vandermeulen, Daniel Casanave
Genre: Non-Ficton
Date Rented: June 6th, 2022

Return Book

Select A Book From Your Wish List To Rent
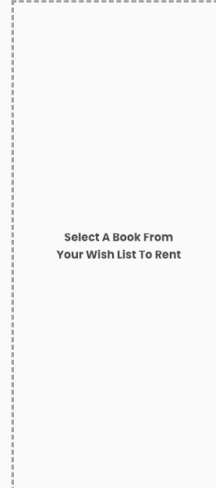
Screenshot

Books Wish List
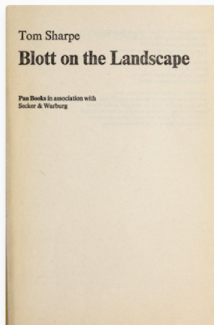
Title: Blott on the Landscape
Author: Tom Sharpe
Genre: Comedy

Rent Book | Remove Book
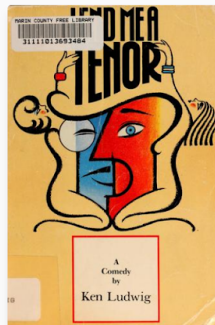
Title: Lend me a tenor
Author: Ken Ludwig
Genre: Comedy

Rent Book | Remove Book
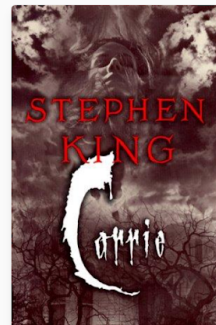
Title: Carrie
Author: Stephen King
Genre: Horror

Rent Book | Remove Book

Screenshot

My Books

Currently Rented Books

Are You Sure You Would Like To Return This Book ?
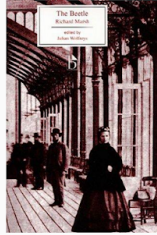
The Beetle
by Richard Marsh

Confirm Return   **Cancel Return**

Title: The Be...
Author: Richi...
Genre: Horro...
Date Rented: June 6th, 2022

Genre: Non-Ficton
Date Rented: June 6th, 2022

Return Book   Return Book

Screenshot

Title: Blott on the Landscape
Author: Tom Sharpe
Genre: Comed...

Title: Lend me a tenor
Author: Ken Ludwig
Genre: Comed...

Title: Carrie
Author: Stephen King

Rent Book   ...move Book

Are You Sure You Would Like To Rent This Book ?
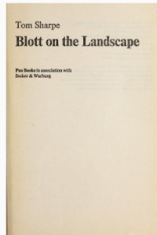
Blott on the Landscape
by Tom Sharpe

Confirm Rental   **Cancel Rental**

Title: Misery
Author: Stephen King
Genre: Horror

Book Unavailable   Remove Book

Screenshot

Customer Book Search (/search-books) - Search Books - Create/Insert Wish List Items

Allows for searching by keyword on a book title, author, genre or isbn. User can also add an item to the wish list from here, with logic to ensure that a book cannot be added to a wish list that already has that book in it for the user.
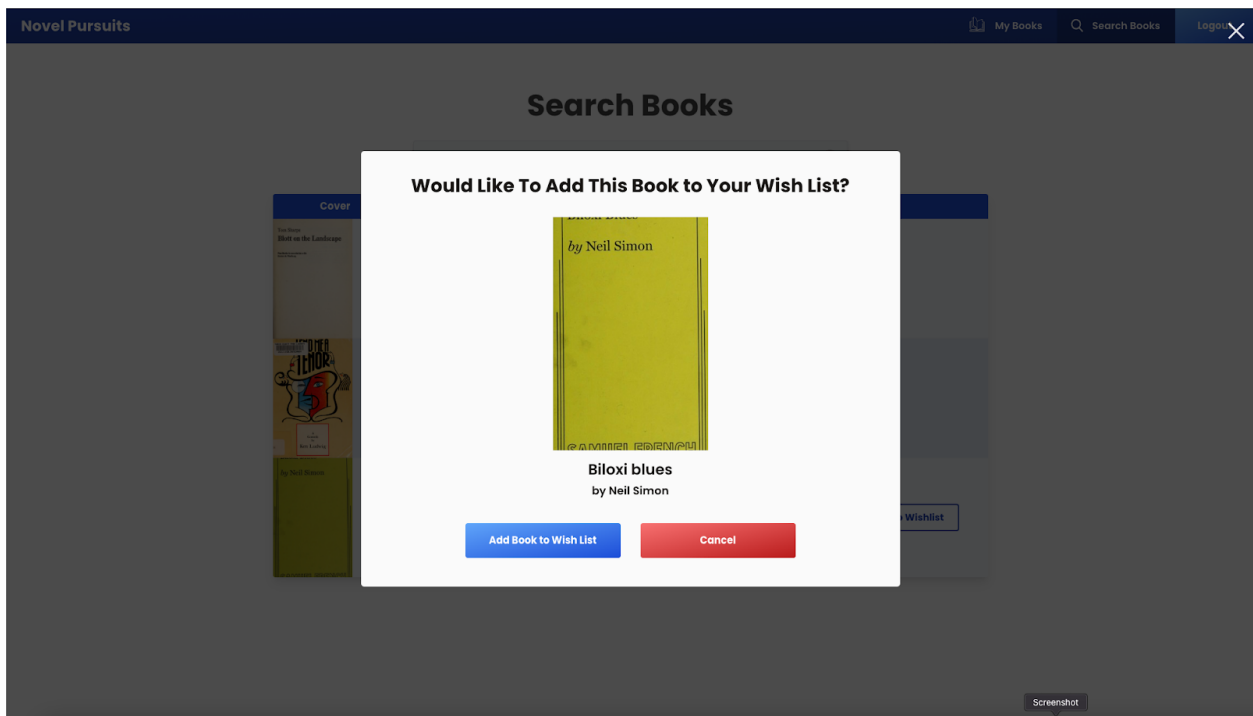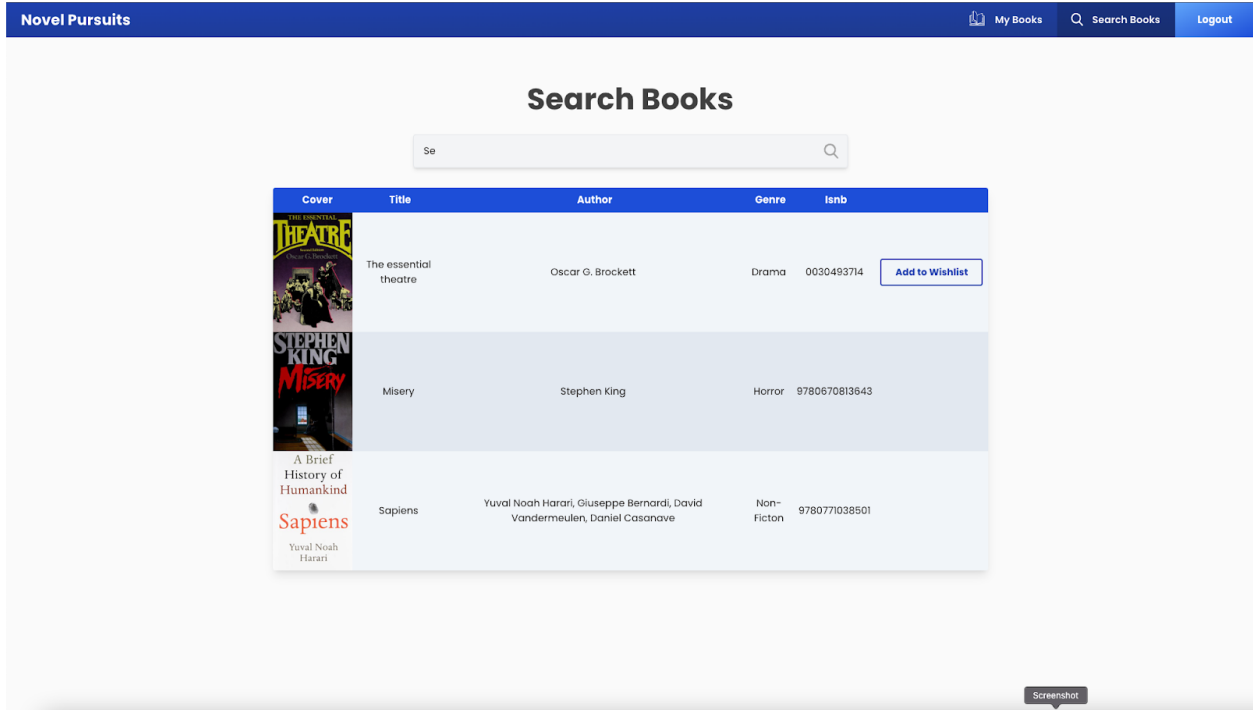
Admin Users (/admin/users) - Read/Browser User Entities, Rental Lists, and Wish Lists for users - Insert/Create User Entity - Edit/Update User Entities - Delete User Entity

Users

Add New User

Novel Pursuits
Admin Dashboard

- Users
- Roles
- Rental Lists
- Wish Lists
- Books
- Authors
- Genres

Logout

Id	User Role Id	First Name	Last Name	Email	Address Line 1	Address Line 2	City	State				
1	1	Admin	User	admin@admin.com	6 Farwell Trail		New York City	New York	View Wish List	View Rental List	Edit User	Delete User
2	4	Saba	Bainton	customer@customer.com	1771 Scoville Street		Jacksonville	Florida	View Wish List	View Rental List	Edit User	Delete User
3	1	Kerry	Wybern	kwybern6@paginegialle.it	24448 Stang Street	Suite 3	Lancaster	Pennsylvania	View Wish List	View Rental List	Edit User	Delete User
4	3	Christye	Vinck	cvinck1@washington.edu	188 Tennyson Plaza		Reno	Nevada	View Wish List	View Rental List	Edit User	Delete User
5	2	Gwenni	Preece	gpreece2@seesaa.net	4 Melody Plaza	Apartment 4	Denver	Colorado	View Wish List	View Rental List	Edit User	Delete User
6	2	Glennis	Spours	gspours3@sohu.com	21 Memorial Crossing		Sacramento	California	View Wish List	View Rental List	Edit User	Delete User
7	4	Maxine	Kiellor	mkiellor5@amazon.co.jp	347 Kropf Drive	Suite 451	Memphis	Tennessee	View Wish List	View Rental List	Edit User	Delete User
8	4	Deerdre	Van Bruggen	dvanbruggen7@soup.io	371 Lindbergh Road		Atlanta	Georgia	View Wish List	View Rental List	Edit User	Delete User
9	4	Waverly	Wellbeloved	wwellbeloved8@sogou.com	096 Coleman Trail		Oklahoma City	Oklahoma	View Wish List	View Rental List	Edit User	Delete User
10	4	Pauly	Guidotti	pguidotti9@ucoz.ru	49 Debs Center		Grand Rapids	Michigan	View Wish List	View Rental List	Edit User	Delete User

Screenshot

All Wish List Books for User With Id: 2

Book_id	Title
1	Blott on the Landscape
5	Lend me a tenor
7	Carrie
9	Misery

Screenshot

Users

Novel Pursuits
Admin Dashboard

Users
Roles
Rental Lists
Wish Lists
Books
Authors
Genres

View Rental Lists | View Wish Lists | Add New User

Id	User Role Id	First Name	Last Name	Email	Address Line 1	Address Line 2	City	State				
1	1	Admin	User	admin@admin.com	6 Farwell Trail		New York City	New York	View Wish List	View Rental List	Edit User	Delete User
2	4	Saba	Bainton	customer@customer.com	1771 Scoville Street		Jacksonville	Florida	View Wish List	View Rental List	Edit User	Delete User
3	1	Kerry	Wybern	kwybern6@paginegialle.it	24448 Stang Street	Suite 3	Lancaster	Pennsylvania	View Wish List	View Rental List	Edit User	Delete User
4	3	Christye	Vinck	cvinck1@washington.edu	188 Tennyson Plaza		Reno	Nevada	View Wish List	View Rental List	Edit User	Delete User
5	2	Gwenni	Preece	gpreece2@seesaa.net	4 Melody Plaza	Apartment 4	Denver	Colorado	View Wish List	View Rental List	Edit User	Delete User
6	2	Glennis	Spours					alifornia	View Wish List	View Rental List	Edit User	Delete User
7	4	Maxine	Kiellor					nnessee	View Wish List	View Rental List	Edit User	Delete User
8	4	Deerdre	Van Bruggen					eorgia	View Wish List	View Rental List	Edit User	Delete User
9	4	Waverly	Wellbeloved					lahoma	View Wish List	View Rental List	Edit User	Delete User
10	4	Pauly	Guidotti	pguidotti9@ucoz.ru	49 Debs Center		Grand Rapids	Michigan	View Wish List	View Rental List	Edit User	Delete User

All Rental List Books for User With Id: 2

Book_id	Title
3	The Beetle
10	Sapiens

Logout

Screenshot

Add User

User Role

admin

First Name

Last Name

Email

Address Line 1

Address Line 2

City

State

Password

Add New User | Cancel

Users

Update User

User Role
admin ⌄

First Name
Kerry 🖉

Last Name
Wybern

Email
kwybern6@paginegialle.it

Address Line 1
24448 Stang Street

Address Line 2
Suite 3

City
Lancaster

State
Pennsylvania

Password
🔑

[Update User] [Cancel]

View Rental Lists   View Wish Lists   Add New User

Id	User Role Id	First Name	Last Name	Email	Address Line 1	Address Line 2	City	State				
1	1	Admin	User	admin@admin.com	6 Farwell Trail		New York City	New York	View Wish List	View Rental List	Edit User	Delete User
2	4	Saba	Bainton	customer@customer.com	1771 Scoville Street		Jacksonville	Florida	View Wish List	View Rental List	Edit User	Delete User
3	1	Kerry	Wybern	kwybern6@paginegialle.it	24448 Stang Street	Suite 3	Lancaster	Pennsylvania	View Wish List	View Rental List	Edit User	Delete User
4	3	Christye	Vinck					Nevada	View Wish List	View Rental List	Edit User	Delete User
5	2	Gwenni	Preece					Colorado	View Wish List	View Rental List	Edit User	Delete User
6	2	Glennis	Spours					California	View Wish List	View Rental List	Edit User	Delete User
7	4	Maxine	Kiellor					Tennessee	View Wish List	View Rental List	Edit User	Delete User
8	4	Deerdre	Van Bruggen					Georgia	View Wish List	View Rental List	Edit User	Delete User
9	4	Waverly	Wellbeloved					Oklahoma	View Wish List	View Rental List	Edit User	Delete User
10	4	Pauly	Guidotti					Michigan	View Wish List	View Rental List	Edit User	Delete User

Delete User

Are you sure you wish to delete the following?

Id:
3

First_name:
Kerry

Last_name:
Wybern

[Delete User] [Cancel]

Screenshot

Admin Roles (/admin/roles) - Read/Browser Roles Entities – Insert/Create New Roles - Edit/Update Roles - Delete Roles

Novel Pursuits
Admin Dashboard

- Users
- Roles
- Rental Lists
- Wish Lists
- Books
- Authors
- Genres

Logout

Roles

Add New Role

Id	Type		
1	admin	Edit Role	Delete Role
2	manager	Edit Role	Delete Role
3	sales	Edit Role	Delete Role
4	customer	Edit Role	Delete Role

Screenshot

Novel Pursuits
Admin Dashboard

- Users
- Roles
- Rental Lists
- Wish Lists
- Books
- Authors
- Genres

Logout

Roles

Add New Role

Id	Type		
1	admin	Edit Role	Delete Role
2	manager	Edit Role	Delete Role
3	sales	Edit Role	Delete Role
4	customer	Edit Role	Delete Role

Add User Role

Type

Add New Role   Cancel

Screenshot

Novel Pursuits
Admin Dashboard

- Users
- Roles
- Rental Lists
- Wish Lists
- Books
- Authors
- Genres

Logout

Roles

Add New Role

Id	Type		
1	admin	Edit Role	Delete Role
2	manager	Edit Role	Delete Role
3	sales	Edit Role	Delete Role
4	customer	Edit Role	Delete Role

Edit Role

Type

admin

Edit Role   Cancel

Screenshot

Novel Pursuits
Admin Dashboard

- Users
- Roles
- Rental Lists
- Wish Lists
- Books
- Authors
- Genres

Logout

Roles

Add New Role

Id	Type		
1	admin	Edit Role	Delete Role
2	manager	Edit Role	Delete Role
3	sales	Edit Role	Delete Role
4	customer	Edit Role	Delete Role

Delete User Role

Are you sure you wish to delete the following?

ID:
1

Type
admin

Delete Role   Cancel

Screenshot

Admin Rental Lists (/admin/rental-lists) - Read/Browser Rental List Entities
Read/Browser Rental List Items for Individual User - Insert/Create Rental
List Items for User - Delete Rental List Items for User

Novel Pursuits
Admin Dashboard

Users
Roles
Rental Lists
Wish Lists
Books
Authors
Genres

Logout

All Rental Lists

Back to Users   Add Items to User Rental List

User Id
2	View Rental List Items
6	View Rental List Items
7	View Rental List Items
8	View Rental List Items
9	View Rental List Items
10	View Rental List Items

All Rental List Books for user_id: 2

Book_id	Title	Delete
3	The Beetle	Delete
10	Sapiens	Delete

Screenshot

Novel Pursuits
Admin Dashboard

Users
Roles
Rental Lists
Wish Lists
Books
Authors
Genres

Logout

All Rental Lists

Back to Users   Add Items to User Rental List

User Id
2	View Rental List Items
6	View Rental List Items
7	View Rental List Items
8	View Rental List Items
9	View Rental List Items
10	View Rental List Items

Delete Book from Rental List

Are you sure you wish to delete the following Rental List item?

User_id:
2

Book_id:
3

Title:
The Beetle

Delete Book From Rental List   Cancel

Screenshot

Admin Wish Lists (/admin/wish-lists) - Read/Browser Wish List Entities Read/Browser Wish List Items for Individual User - Insert/Create Wish List Items for User - Delete Wish List Items for User

Screenshot 1

Novel Pursuits
Admin Dashboard

- Users
- Roles
- Rental Lists
- Wish Lists
- Books
- Authors
- Genres

Logout

All Wish Lists

Back to Users   Add Items to User Wish List

User Id
2	View Wish List Items
6	View Wish List Items
7	View Wish List Items
8	View Wish List Items
9	View Wish List Items
10	View Wish List Items

All Wish List Books for user_id: 2

Book_id	Title	Delete
1	Blott on the Landscape	Delete
5	Lend me a tenor	Delete
7	Carrie	Delete
9	Misery	Delete

Screenshot

Screenshot 2

Novel Pursuits
Admin Dashboard

- Users
- Roles
- Rental Lists
- Wish Lists
- Books
- Authors
- Genres

Logout

All Wish Lists

Back to Users   Add Items to User Wish List

User Id
2	View Wish List Items
6	View Wish List Items
7	View Wish List Items
8	View Wish List Items
9	View Wish List Items
10	View Wish List Items

Delete Book from Wish List

Are you sure you wish to delete the following Wish List item?

User_id:
2

Book_id:
9

Title:
Misery

Delete Book From Wish List   Cancel

Screenshot

Admin Books (/admin/books) - Read/Browser Books Entities - Insert/Create Books - Edit/Update Books - Insert/Create Author - Insert/Create Genre - Delete Books

Novel Pursuits
Admin Dashboard

- Users
- Roles
- Rental Lists
- Wish Lists
- Books
- Authors
- Genres

Logout

Books

Search All Books   **Add New Book**

Id	Title	Authors	Genre	Isbn	Cover Image	Quantity Available	Quantity Rented		
1	Blott on the Landscape	Tom Sharpe	Comedy	9780330250801		13	10	Edit Book	Delete Book
2	Death in the afternoon	Ernest Hemingway	Non-Ficton	0684717964		8	9	Edit Book	Delete Book
3	The Beetle	Richard Marsh	Horror	1551114437		17	11	Edit Book	Delete Book
4	Five Children and It	Edith Nesbit	Fiction	0706410513		17	3	Edit Book	Delete Book
5	Lend me a tenor	Ken Ludwig	Comedy	0573691215		14	9	Edit Book	Delete Book
6	Biloxi blues	Neil Simon	Comedy	0573690405		20	7	Edit Book	Delete Book
7	Carrie	Stephen King	Horror	0385086954		17	10	Edit Book	Delete Book
8	The essential theatre	Oscar G. Brockett	Drama	0030493714		13	6	Edit Book	Delete Book
9	Misery	Stephen King	Horror	9780670813643		15	15	Edit Book	Delete Book
10	Sapiens	Yuval Noah Harari, Giuseppe Bernardi, David Vandermeulen, Daniel Casanave	Non-Ficton	9780771038501		12	11	Edit Book	Delete Book
11	Island of Dr. Moreau	H. G. Wells	Non-Ficton	0441374212		15	2	Edit Book	Delete Book

Screenshot

Add Book

Title

[ ]

Author:

- Ernest Hemingway
- Yuval Noah Harari
- Oscar G. Brockett
- Tom Sharpe
- Giuseppe Bernardi

Add New Author

Genre

[ ] **Add New Genre**

Isbn

[ ]

Cover Image

[ ]

Quantity Available

[ ]

Quantity Rented

[ ]

Add New Book   **Cancel**

Screenshot

Novel Pursuits
Admin Dashboard

- Users
- Roles
- Rental Lists
- Wish Lists
- Books
- Authors
- Genres

Logout

Books

Search All Books | Add New Book

Id	Title		mage	Quantity Available	Quantity Rented		
1	Blott on the Landscape			13	10	Edit Book	Delete Book
2	Death in the afternoon			8	9	Edit Book	Delete Book
3	The Beetle			17	11	Edit Book	Delete Book
4	Five Children and It			17	3	Edit Book	Delete Book
5	Lend me a tenor			14	9	Edit Book	Delete Book
6	Biloxi blues			20	7	Edit Book	Delete Book
7	Carrie			17	10	Edit Book	Delete Book
8	The essential theatre			13	6	Edit Book	Delete Book
9	Misery			15	15	Edit Book	Delete Book
10	Sapiens	Yuval Noah Harari		12	11	Edit Book	Delete Book
11	Island of Dr. Moreau			15	2	Edit Book	Delete Book

Add Book

Title

[🔖]

New Author Name

[   ]

Author Birth_date

[mm/dd/yyyy]   Cancel

New Genre Name

[   ]   Cancel

Isbn

[   ]

Cover Image

[   ]

Quantity Available

[   ]

Quantity Rented

[   ]

Add New Book | Cancel

Screenshot

Novel Pursuits
Admin Dashboard

- Users
- Roles
- Rental Lists
- Wish Lists
- Books
- Authors
- Genres

Logout

Books

Search All Books | Add New Book

Id	Title		mage	Quantity Available	Quantity Rented		
1	Blott on the Landscape			13	10	Edit Book	Delete Book
2	Death in the afternoon			8	9	Edit Book	Delete Book
3	The Beetle			17	11	Edit Book	Delete Book
4	Five Children and It			17	3	Edit Book	Delete Book
5	Lend me a tenor			14	9	Edit Book	Delete Book
6	Biloxi blues			20	7	Edit Book	Delete Book
7	Carrie			17	10	Edit Book	Delete Book
8	The essential theatre			13	6	Edit Book	Delete Book
9	Misery			!5	15	Edit Book	Delete Book
10	Sapiens	Yuval Noah Harari		12	11	Edit Book	Delete Book
11	Island of Dr. Moreau		Ficton	15	2	Edit Book	Delete Book

Update Book

Title

[Blott on the Landscape   🔖]

Author:

Ernest Hemingway
Yuval Noah Harari
Oscar G. Brockett
Tom Sharpe
Giuseppe Bernardi

Add New Author

Genre

[Comedy ▾]   Add New Genre

Isbn

[9780330250801]

Cover Image

[https://covers.openlibrary.org/b/isbn/9780330250801-L.jpg]

Quantity Available

[13]

Quantity Rented

[10]

Update Book | Cancel

Screenshot

Admin Search Books (/admin/search-books) - Dynamic Display/Search Book Entities

Allows the user to use three separate search methods to search by title, author and genre.

Search Books

Novel Pursuits
Admin Dashboard

- Users
- Roles
- Rental Lists
- Wish Lists
- Books
- Authors
- Genres

Logout

Enter a Title

Title:

Te

Search for B

Choose

Genre:

Search for B

Select a Genre

Genre:

Search for Books by Genre

Search Results

Id	Title	Authors	Genre	Isbn	Cover_image	Quantity_available	Quantity_rented
2	Death in the afternoon	Ernest Hemingway	Non-Ficton	0684717964		8	9
5	Lend me a tenor	Ken Ludwig	Comedy	0573691215		14	9

Close Results

Screenshot

Admin Authors (/admin/authors) - Read/Browser Author Entities - Read/Browser Author Books - Insert/Create Author - Edit/Update Author - Delete Author

Novel Pursuits
Admin Dashboard

- Users
- Roles
- Rental Lists
- Wish Lists
- Books
- Authors
- Genres

Logout

Authors

Add New Author

Id	Name	Birth Date			
1	Ernest Hemingway	1899-07-21	View All Author Books	Edit Author	Delete Author
2	Yuval Noah Harari	1976-02-24	View All Author Books	Edit Author	Delete Author
3	Oscar G. Brockett	1923-04-23	View All Author Books	Edit Author	Delete Author
4	Tom Sharpe			Edit Author	Delete Author
5	Giuseppe Bernardi			Edit Author	Delete Author
6	David Vandermeulen			Edit Author	Delete Author
7	Daniel Casanave			Edit Author	Delete Author
8	Ken Ludwig			Edit Author	Delete Author
9	Neil Simon			Edit Author	Delete Author
10	Richard Marsh			Edit Author	Delete Author
11	Stephen King	1947-09-21	View All Author Books	Edit Author	Delete Author
12	Edith Nesbit	1858-08-15	View All Author Books	Edit Author	Delete Author
13	H. G. Wells	1866-09-21	View All Author Books	Edit Author	Delete Author

Add Author

Name

Birth Date
mm/dd/yyyy

Add New Author   Cancel

Novel Pursuits
Admin Dashboard

- Users
- Roles
- Rental Lists
- Wish Lists
- Books
- Authors
- Genres

Logout

Authors

Add New Author

Id	Name	Birth Date			
1	Ernest Hemingway	1899-07-21	View All Author Books	Edit Author	Delete Author
2	Yuval Noah Harari	1976-02-24	View All Author Books	Edit Author	Delete Author
3	Oscar G. Brockett	1923-04-23	View All Author Books	Edit Author	Delete Author
4	Tom Sharpe			Edit Author	Delete Author
5	Giuseppe Bernardi			Edit Author	Delete Author
6	David Vandermeulen			Edit Author	Delete Author
7	Daniel Casanave			Edit Author	Delete Author
8	Ken Ludwig			Edit Author	Delete Author
9	Neil Simon			Edit Author	Delete Author
10	Richard Marsh			Edit Author	Delete Author
11	Stephen King	1947-09-21	View All Author Books	Edit Author	Delete Author
12	Edith Nesbit	1858-08-15	View All Author Books	Edit Author	Delete Author
13	H. G. Wells	1866-09-21	View All Author Books	Edit Author	Delete Author

Edit Author

Name
Ernest Hemingway

Birth Date
07/21/1899

Update Author   Cancel

Authors

Add New Author

Id	Name	Birth Date			
1	Ernest Hemingway	1899-07-21	View All Author Books	Edit Author	Delete Author
2	Yuval Noah Harari	1976-02-24	View All Author Books	Edit Author	Delete Author
3	Oscar G. Brockett	1923-04-23	View All Author Books	Edit Author	Delete Author
4	Tom Sharpe	1928-03-30	View All Author Books	Edit Author	Delete Author
5	Giuseppe Bernardi			Edit Author	Delete Author
6	David Vandermeulen			Edit Author	Delete Author
7	Daniel Casanave			Edit Author	Delete Author
8	Ken Ludwig			Edit Author	Delete Author
9	Neil Simon			Edit Author	Delete Author
10	Richard Marsh			Edit Author	Delete Author
11	Stephen King	1947-09-21	View All Author Books	Edit Author	Delete Author
12	Edith Nesbit	1858-08-15	View All Author Books	Edit Author	Delete Author
13	H. G. Wells	1866-09-21	View All Author Books	Edit Author	Delete Author

Delete Author

Are you sure you wish to delete the following?

Id:

1

Name:

Ernest Hemingway

Delete Author   Cancel

Novel Pursuits
Admin Dashboard

- Users
- Roles
- Rental Lists
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- Books
- Authors
- Genres

Logout

Screenshot

Admin Genres (/admin/genres) - Read/Browser Genre Entities - Insert/Create Genre - Edit/Update Genre - Delete Genre

Genres

Novel Pursuits
Admin Dashboard

- Users
- Roles
- Rental Lists
- Wish Lists
- Books
- Authors
- Genres

Add New Genre

Id	Name		
1	Non-Ficton	Edit Genre	Delete Genre
2	Fiction	Edit Genre	Delete Genre
3	Horror	Edit Genre	Delete Genre
4	Comedy	Edit Genre	Delete Genre
5	Drama	Edit Genre	Delete Genre

Logout

Screenshot

Novel Pursuits
Admin Dashboard

Users
Roles
Rental Lists
Wish Lists
Books
Authors
Genres

Genres

Add New Genre

Id	Name		
1	Non-Ficton	Edit Genre	Delete Genre
2	Fiction	Edit Genre	Delete Genre
3	Horror	Edit Genre	Delete Genre
4	Comedy	Edit Genre	Delete Genre
5	Dr	Edit Genre	Delete Genre

Add Genre

Name

Add New Genre   Cancel

Logout

Screenshot

Novel Pursuits
Admin Dashboard

Users
Roles
Rental Lists
Wish Lists
Books
Authors
Genres

Genres

Add New Genre

Id	Name		
1	Non-Ficton	Edit Genre	Delete Genre
2	Fiction	Edit Genre	Delete Genre
3	Horror	Edit Genre	Delete Genre
4	Comedy	Edit Genre	Delete Genre
5	Dr	Edit Genre	Delete Genre

Edit Genre

Name

Non-Ficton

Update Genre   Cancel

Logout

Screenshot

Users

Roles

Rental Lists

Wish Lists

Books

Authors

Genres

Genres

Id	Name		
1	Non-Ficton	Edit Genre	Delete Genre
2	Fiction	Edit Genre	Delete Genre
3	Horror	Edit Genre	Delete Genre
4	Comedie	Edit Genre	Delete Genre
5	Dr	Edit Genre	Delete Genre

Delete Genre

Are you sure you wish to delete the following?
It will set the Genre on all associated books to NULL

Id:
1

Name:
Non-Ficton

Delete Genre   Cancel

Logout

Screenshot