BOOKHUB

Inventory Management System Documentation

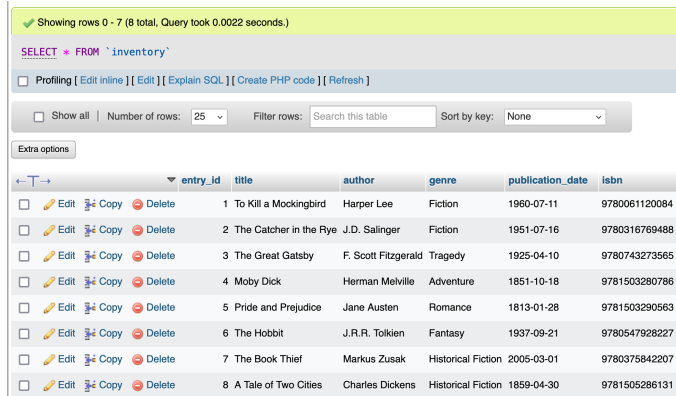Liu Cheuk Ying (Cherry)

How to set up the system

The system is build using Node.js for the backend, eact for the front end and connects to a MySQL database .

Prerequisite
Make sure to have Nodejs, npm and MySQL installed

Instructions

1. Create the database **"bookhub"** in MySQL, then import the mysql file "**bookhub.sql**" to create the inventory table

Showing rows 0 - 7 (8 total, Query took 0.0022 seconds.)

SELECT * FROM `inventory`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 ⌄   Filter rows: Search this table   Sort by key: None ⌄

Extra options

			entry_id	title	author	genre	publication_date	isbn
☐	🖉 Edit	🛠 Copy ⊝ Delete	1	To Kill a Mockingbird	Harper Lee	Fiction	1960-07-11	9780061120084
☐	🖉 Edit	🛠 Copy ⊝ Delete	2	The Catcher in the Rye	J.D. Salinger	Fiction	1951-07-16	9780316769488
☐	🖉 Edit	🛠 Copy ⊝ Delete	3	The Great Gatsby	F. Scott Fitzgerald	Tragedy	1925-04-10	9780743273565
☐	🖉 Edit	🛠 Copy ⊝ Delete	4	Moby Dick	Herman Melville	Adventure	1851-10-18	9781503280786
☐	🖉 Edit	🛠 Copy ⊝ Delete	5	Pride and Prejudice	Jane Austen	Romance	1813-01-28	9781503290563
☐	🖉 Edit	🛠 Copy ⊝ Delete	6	The Hobbit	J.R.R. Tolkien	Fantasy	1937-09-21	9780547928227
☐	🖉 Edit	🛠 Copy ⊝ Delete	7	The Book Thief	Markus Zusak	Historical Fiction	2005-03-01	9780375842207
☐	🖉 Edit	🛠 Copy ⊝ Delete	8	A Tale of Two Cities	Charles Dickens	Historical Fiction	1859-04-30	9781505286131

2. Open the Backend Folder and locate the *index.js* file. Update the backend file with your MySQL credentials (Eg. username, password, database name, port)

```
// ------- Connection to mySQL Databbase -------
// * ------- UPDATE YOUR MYSQL CREDENTIALS HERE ------- *//
const db = mysql.createConnection({
    host: "localhost",
    user: "root",
    password: "root",
    database: "bookhub",
    port: "8889",
});
```

3. Open terminal and navigate to the backend folder *cd backend* to install the necessary dependencies *npm i*
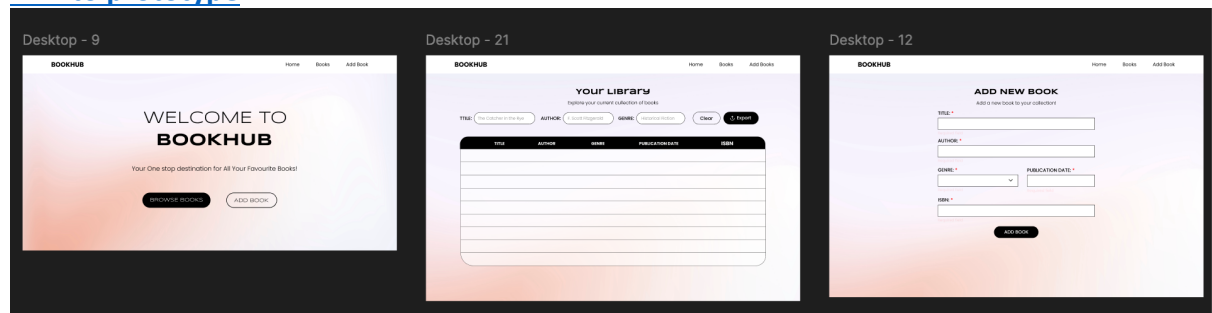
4. Start backend server with *npm start*, the server should be running http://localhost:8800.

5. Open a new terminal window, mavigate to the frontend folder *cd frontend* and install the necessary dependencies *npm i*

6. Start react application with *npm start*, the react application should be running on http://localhost:3000

Figma Prototype

[Link to prototype](#)

How to Use the System

1. Home Page
a. The "Browse Books" button takes users to a list of all available books (/books).
b. The "Add Book" button leads to a form where users can add a new book (/add).

2. Books Page
a. Users can view a table listing all books.
b. Users can filter the results by Title, Author Name, and Genre, with results updating dynamically.
c. Users can clear all search fields to reset the filters.
d. Users can export the book list as a CSV file.

3. Add Book Page
a. Users enter information about the new book.
b. The system validates that no fields are left empty.
c. The publication date must not be set in the future.
d. The ISBN number must be exactly 13 digits and contain only numbers.
e. Upon successful submission, users are redirected to the Books page.

Challenges

a. As I had never implemented the "export as CSV" functionality before, I had to research and learn how to use it during this challenge.

b. In my previous course projects, I primarily used React for building components like headers and footers, with less focus on hook functions. However, this challenge required me to spend more time familiarizing myself with React, particularly hook functions. Additionally, handling form validation in React differed from how I usually approached it with vanilla JavaScript, which made it a bit challenging.