

Book-Haven(Book Store)

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Introduction

Who are the users of this software?

- The users of this software would be anybody that are looking for new books to read, by recommendation, looking to buy and keep track of the books they have read or just looking for a new and interesting bookstore

How does this software work?

- The user can choose to login, create a new account or enter as an admin. Once the login or create account is complete the user will have options to get a book recommendation, search for a specific book or view their book collection. This is done mostly by writing this information to files and reading from this files into various data structures that can confirm the objects and fields entered

What is the purpose of the Software?

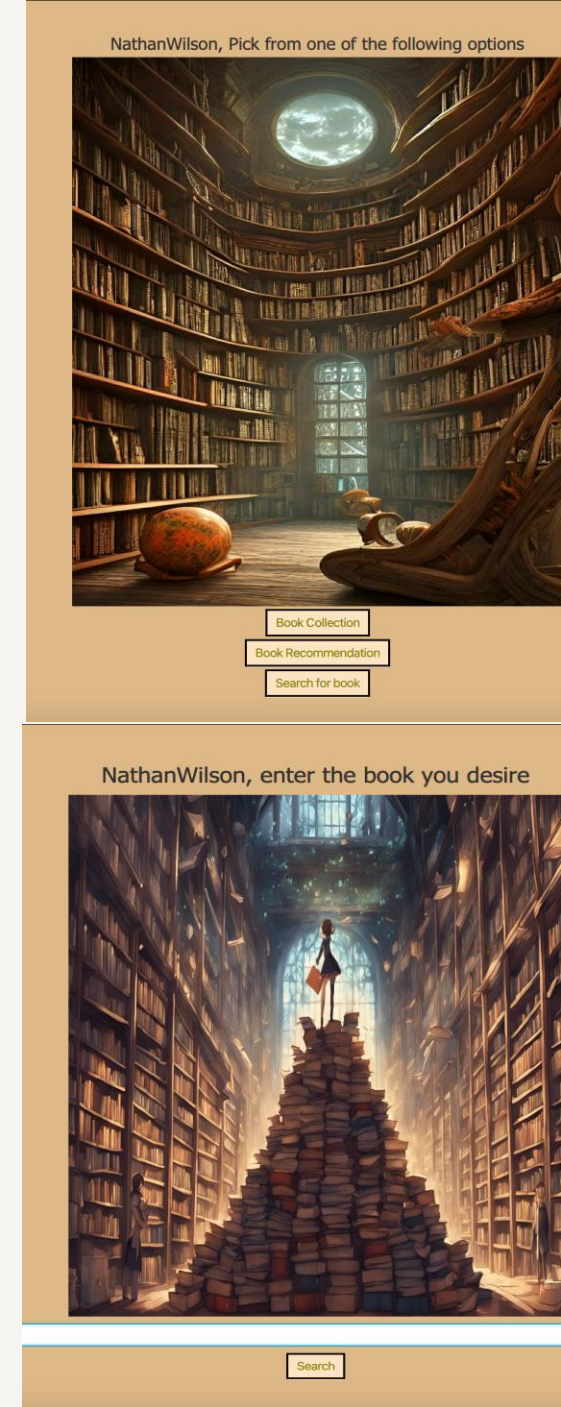
- The purpose of this software is to create a new and simple bookstore, where the users can keep a digital collection of books, buy new books and get book recommendations if you are looking for new ideas

Why use this over existing software?

- This software is simple and easy to use. Almost anyone can use this, and it is free to use, other than purchasing the books of course. Also, other bookstores do not allow you to see your collection of books or get random recommendations

Java FX Components

- VBox – This is the layout pane I chose to use in my UI because it seemed the simplest and was already organized. This layout pane, displays child nodes from top to bottom, in the order they are placed into the box
- Labels – I used these many times to explain to the user what they would have to perform for the program to continue. An example of this would be "Enter the book you desire"
- TextField- Was used a lot to retrieve the user input, for example entering a book or entering a Username and Password
- Buttons- Most of my buttons were enter or search buttons but I also had buttons for options like, "Book Recommendation"



Writing/Reading to Text Files

- There are many instances in my code where I had to read and write user input or admin input into text files.
- To the right we see that I made a Bufferered writer that writes to a file named "username.txt", which holds all usernames and passwords.
- I use a Buffered reader and a while loop to read all of the lines in the file "userName.txt" and check if the username entered is equal to a username in the file
- In this case if the username is found then we show an error because we are creating an account where we don't want duplicates in the file.

```
try (BufferedWriter writer = new BufferedWriter(new FileWriter( fileName: "username.txt", append: true))) {  
  
    boolean found = false;  
  
    // reading them and making sure that userName does not already exist in file  
  
    try (BufferedReader reader = new BufferedReader(new FileReader( fileName: "username.txt"))) {  
        String userToString = user.toString();  
        String line;  
  
        while ((line = reader.readLine()) != null) {  
            String[] parts = line.split( regex: ",", limit: 2); // Split at the first comma  
            if (parts.length > 0) {  
                String userName = parts[0].trim(); // Extract the userName before the comma  
                System.out.println(userName); // Print the userName to console  
                names.add(userName); // Add userName to list  
                if (userName.equals(user.getUserName())) {  
                    found = true;  
                    break;  
                }  
            }  
        }  
    }  
}
```

Alerts

- There are many times in my code, where an invalid input is entered. We can see this if a username is entered into a create account text field that already exist or when logging in, if the name does not exist or match the password that corresponds with it, we give an alert.
- In this alert we give the user specific directions on what to do to correct the error
- We see this with a lot of the admin properties as well. If they try to add a book that already exist or use a passcode and username that does not match the admin passcode and username an alert is shown

