

DESIGN DOCUMENT FOR LIBRARY MANAGEMENT SYSTEM

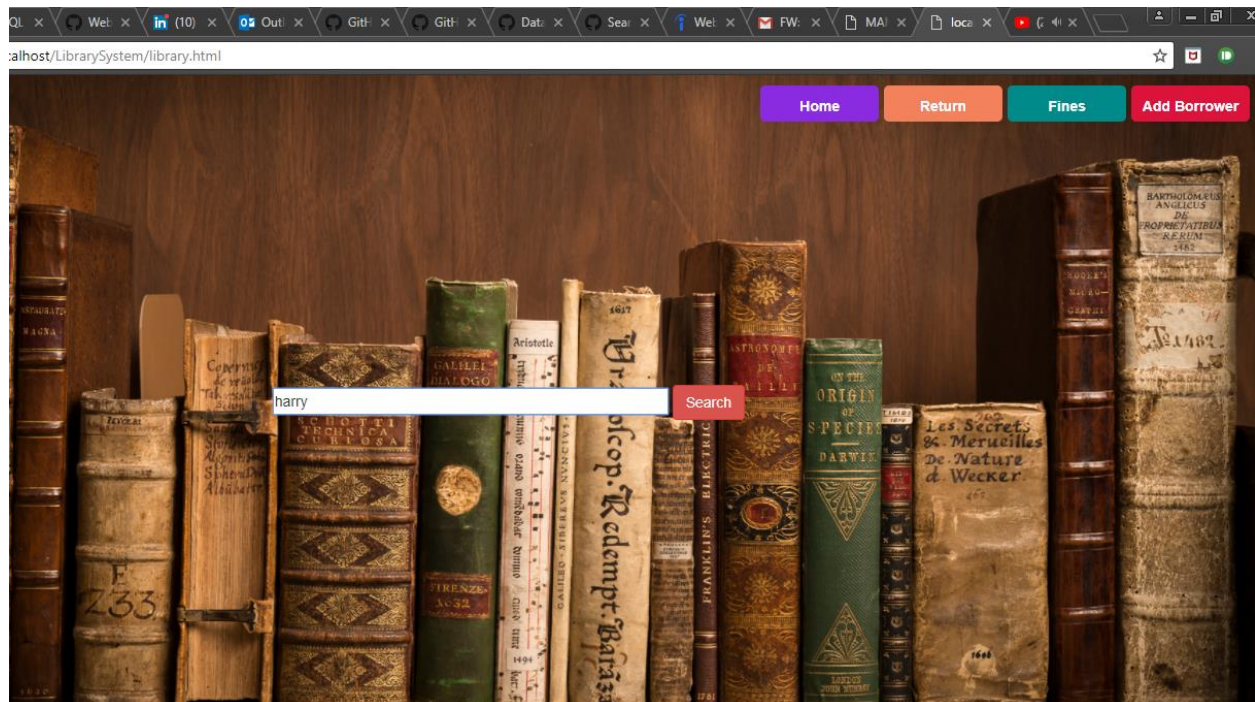
Design Document

- Technologies used- HTML,CSS,JAVASCRIPT (FRAMEWORK JQUERY),AJAX,PHP.

Reason - These technologies are widely used in the practical world for implementation of a project also I have taken a course in Web Programming Languages this semester in which I am learning these technologies.

1)Book Search-

In the book search module, a librarian can enter multiple keywords like(ISBN TITLE AUTHOR), (Assumption-Keyword entered does not contain any special characters).The search will display a list of books with ISBN, BOOK TITLE, BOOK AUTHOR, AVAILABILITY. Depending on the availability of the book, a librarian can check out the book.



ISBN	Title	Authors	Availability	Check Out
0060915749	The Knockout Artist	Harry Crews	Available	Check Out
0061096156	Society Of The Mind: A Cyberthriller	Eric L. Harry	Available	Check Out
0064610446	Errors In English And Ways To Correct Them: Fourth Edition	Harry Shaw	Not Available	Check Out
013116757X	Canadian Society: A Macro Analysis	Harry H. Hiller	Not Available	Check Out
0140156011	Last Call	Harry Mulisch	Not Available	Check Out
0140239375	The Discovery Of Heaven	Harry Mulisch	Available	Check Out
0312864876	Household Gods	Harry Turtledove	Available	Check Out
0312950489	The Black Echo (Harry Bosch)	Michael Connelly	Available	Check Out
0312955006	The Concrete Blonde (Harry Bosch)	Michael Connelly	Available	Check Out
0312958455	The Last Coyote (Harry Bosch)	Michael Connelly	Available	Check Out
0316152196	Angels Flight (Harry Bosch)	Michael Connelly	Available	Check Out
0345317211	The Cook	Harry Kressing	Available	Check Out
0345343387	Noninterference	Harry Turtledove	Available	Check Out
0345382412	In The Balance (Worldwar Series, Volume 1)	Harry Turtledove	Available	Check Out
0345384687	The Guns Of The South	Harry Turtledove	Available	Check Out
0345388526	In The Balance: An Alternate History Of The Second World War (Worldwar, Volume 1)	Harry Turtledove	Available	Check Out
0345389972	Tilting The Balance (Worldwar Series, Volume 2)	Harry Turtledove	Available	Check Out
0345389980	Tilting The Balance (Worldwar Series, Volume 2)	Harry Turtledove	Available	Check Out
0345402219	Upsetting The Balance (Worldwar Series, Volume 3)	Harry Turtledove	Available	Check Out
0345402405	Upsetting The Balance (Worldwar Series, Volume 3)	Harry Turtledove	Available	Check Out
0345405501	Striking The Balance (Worldwar Series, Volume 4)	Harry Turtledove	Available	Check Out
0345405625	Walk In Hell (The Great War, Book 2)	Harry Turtledove	Available	Check Out

2)Check-Out-

Once found that the book is available the librarian can check out the book by clicking on the available key and the librarian will enter the card id of the user if the user hasn't checked out more than three books he/she is permitted to check out the book and there will be a data entry in the book_loans table or else message will be displayed that the user has reached the limit of checking out three books.

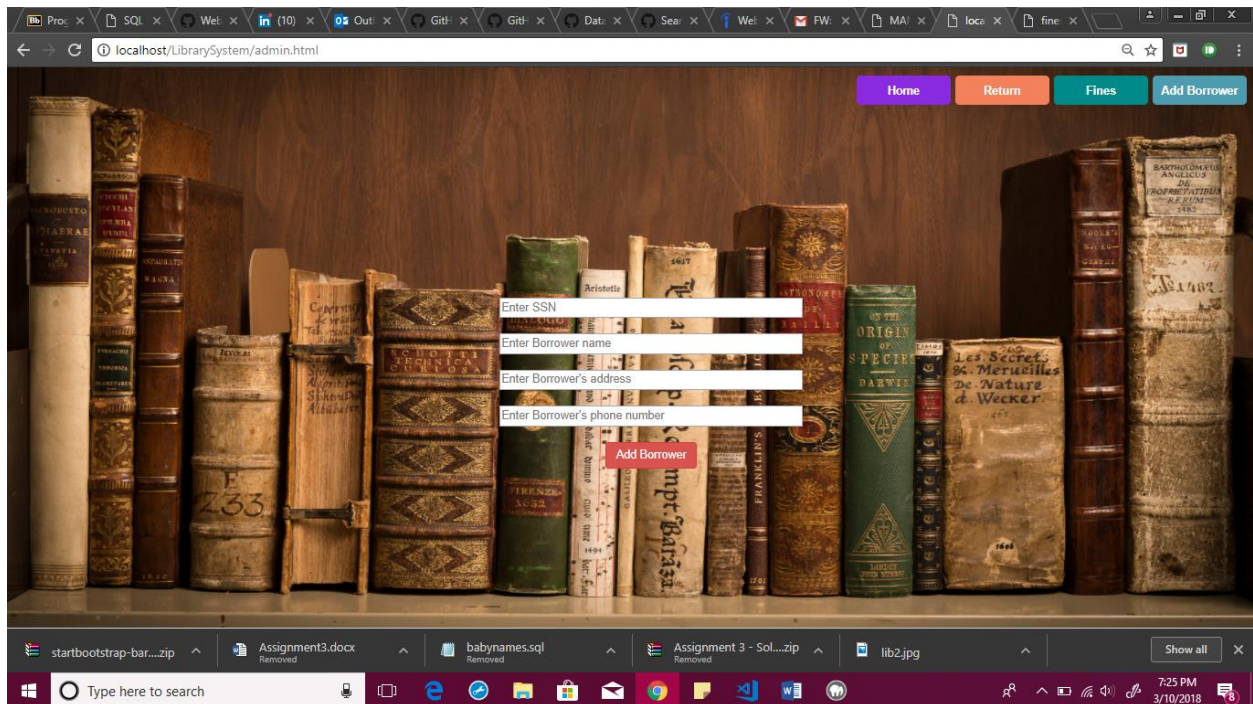
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0345405625	Walk In Hell (The Great War, Book 2)	Harry Turtledove	Available	Check Out
0345406141	How Few Remain	Harry Turtledove	Available	Check Out
0380614324	I Love You, Stupid	Harry Mazer	Available	Check Out
038533396X	How I Accidentally Joined The Vast Right-Wing Conspiracy (and Found Inner Peace)	Harry Stein	Available	Check Out
0385483260	A Tale Of Two Cities (Penguin Readers, Level 6)	David Wharry	Available	Check Out

3)Add Borrower-

The librarian can add a borrower. The input fields are specified in the UI.

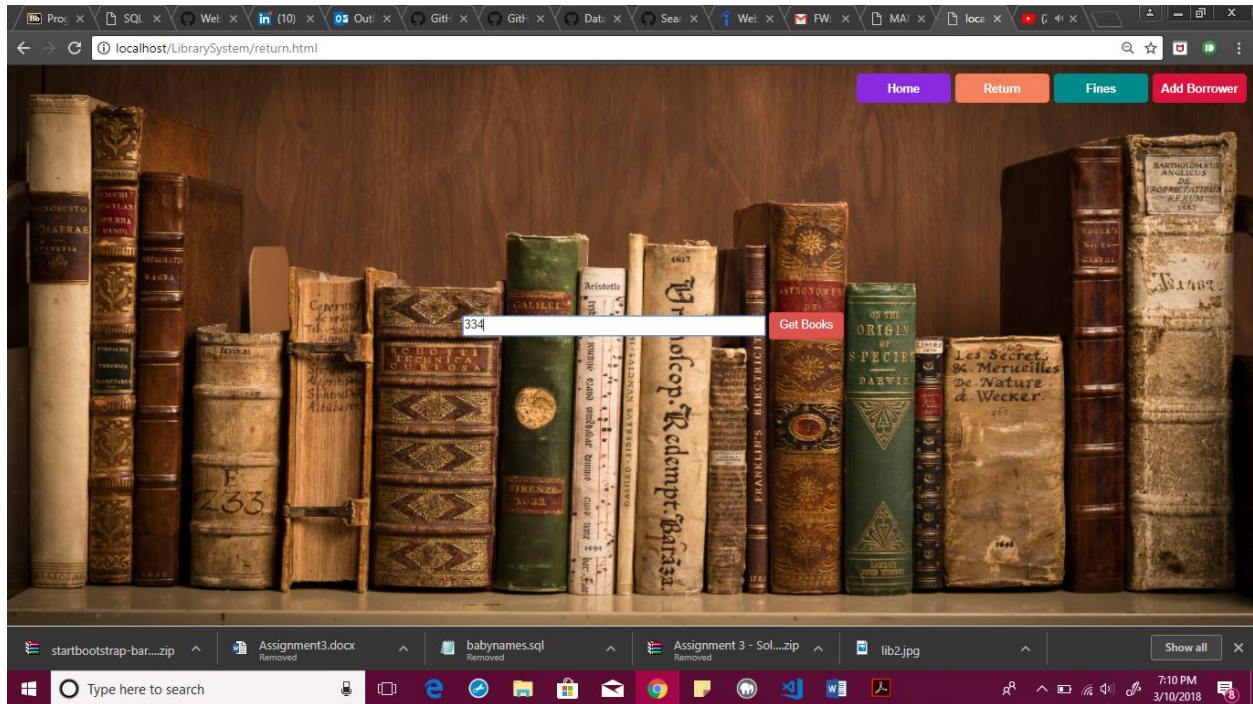
i.e(SSN,Borrower,Address,Phone). If the SSN is same then the entry is rejected or else it is added to the database of the borrower.(Assumption- We were not given SSN but SSN was randomly generated using this website and was added to the table for validation that no two users can be same.website name:

<http://mockaroo.com>)



4) Returning a book-

In this module, the librarian can check whether the book is out by keyword Card id or ISBN or Borrower name for returning the book against the card id of the user the librarian the can return by clicking on return button and the date_in will be changed to today's date in the book_loans table.



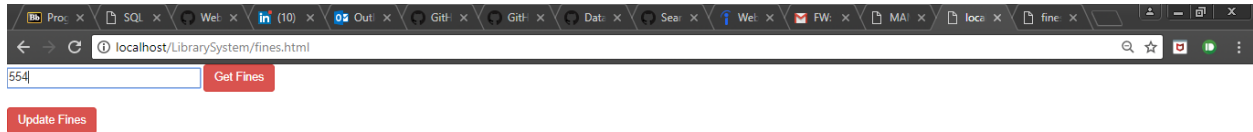
The screenshot shows a web browser window with the URL `localhost/LibrarySystem/return.html`. The page displays a table with the following data:

Card ID	ISBN	Title	Check IN
334	0064610446	Errors In English And Ways To Correct Them: Fourth Edition	Return
334	013116757X	Canadian Society: A Macro Analysis	Return

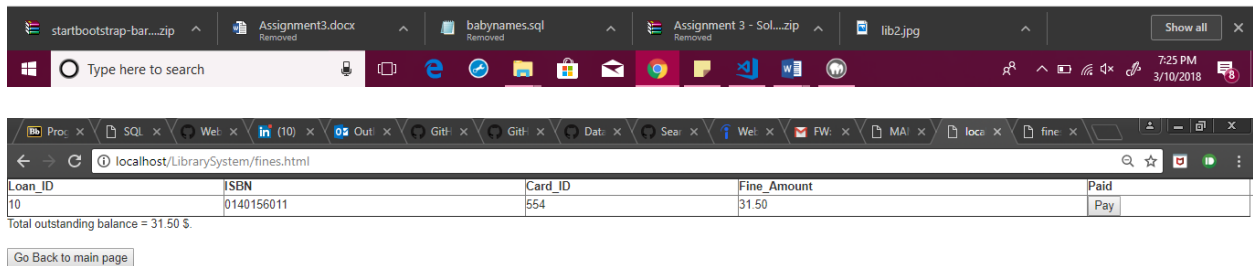


5)Fines-

The fines can be seen against the card id of the user and it can be paid and once the fine is paid the paid column that is a boolean value is changed to 1 and in the next search, it shows that the fine is paid. When the librarian clicks on the update button the fines are recalculated for the books that are out according to the current date and stored in the database.



The screenshot shows a web browser window with the URL `localhost/LibrarySystem/fines.html`. There is a search input field containing the text "554". To the right of the input field is a red button labeled "Get Fines". Below the input field is another red button labeled "Update Fines".



The screenshot shows the same web browser window as before, but now displaying a table of fines. The table has five columns: Loan_ID, ISBN, Card_ID, Fine_Amount, and Paid. The first row shows a loan with ID 10, ISBN 0140156011, Card_ID 554, and a fine amount of 31.50. The Paid column has a "Pay" button. Below the table, it says "Total outstanding balance = 31.50 \$". At the bottom left, there is a button labeled "Go Back to main page".

Loan_ID	ISBN	Card_ID	Fine_Amount	Paid
10	0140156011	554	31.50	<button>Pay</button>

Total outstanding balance = 31.50 \$

Go Back to main page

