**System Architecture**

Design Decisions & Assumptions

1. **Login:**

Librarian needs to login initially to get into library management system

Username & password is kept same as mysql db credentials

Files: credential.php, welcome.php, menu.php

1. **Book search & availability:**

Added one ‘Availability’ column in ‘book’ table with default value “Available”

Whenever a book is checked out, this column will be updated as “Checked out”

Files: menu.php, navigationBar.css, bookSearchForm.php

1. **Book Loans:**
2. **Check-out:**

User can search for available book, what all can be checked out, using book name or isbn. Only available books are displayed for checkout. Already checked out books are not displayed here.

Card id is mandatory to check out a book.

Multiple check outs are allowed. But not more than 3 check out allowed per user. Error message will be printed.

Success message displayed on every successful checkout.

Files: bookLoanManagement.html, checkout.php, updateCheckout.php, successfulCheckout.php,

1. **Check-in:**

User can search for book, what all already checked out, using book name or isbn. Already checked out books are only displayed here.

Card id is mandatory to check in a book.

Success message displayed on every successful checkout.

Files: bookLoanManagement.html, checkin.php, updateCheckin.php

1. **Fine Management:**

Files: fineManagement.html