System Architecture, Design documents & Assumptions

ASSUMPTIONS

- 1. Borrowers should have unique SSN
- 2. A book can be lent for only 15 days after which fine will be calculated

SYSTEM DESIGN

The database consists of the following tables

- 1. BOOK
- 2. BOOK AUTHORS
- 3. AUTHORS
- 4. BOOK COPIES
- 5. BORROWER
- 6. BOOK LOANS
- 7. FINES

The application is built in HTML, JavaScript and php along with MySQL.

The functionality of each page is as described below:

Home Page

1. This is just a combination of links to all pages and the display catalog of the library

Search Page

- 1. On this page search for either one or a combination of ISBN, Book Title or Author. Key in the values and click the Search Button.
- 2. The values will be filtered in the table. Check the desired book and click on the 'Check Out' button.
- 3. This page will redirect to the checkout page with ISBN of the book populated in the field.

Check Out Page

- 1. Enter the ISBN of the book and Card No. of the user and click the Checkout button.
- 2. This will check out the book for the borrower.
- 3. If the book is already checked out the system will throw an error.
- 4. A borrower can at a time have only maximum 3 books checked out. If the borrower tries to check out more than 3 books, the system will throw an error.

Check-In Page

- 1. Enter the Card No and ISBN of book, finally click the Search button to receive details of checked out books.
- 2. Select the book to check in and press the Check in button.

Add borrowers page

- 1. Key In all the required values and click the ADD button.
- 2. A card Number will be assigned to the New User.
- 3. Duplicate Users with same SSN will not be allowed.

Fine Page

- 1. Click the Refresh button before checking the amount.
- 2. Key in the Card Number to check or pay fine.