

**Department Of Electrical and Computer Engineering**

**CSE311.L(Section-4)**

Project Proposal & Requirement Analysis

**Library Management System**

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Online Library Management System

A lot of libraries still operate in the outdated and manual system of maintaining a physical list and record of the books stored in the library and the books issued to the public. In small quantities it might seem manageable, however, the more educated a certain society is, the more would be its interaction with its libraries. At that point, the job of manually tracking the information of the books seems rather cumbersome, inefficient and prone to errors. Therefore, such a situation calls for the use of an automated system that would efficiently keep tracks of these books.

Our Project is regarding an online library management system that battles this problem by offering a well-designed and well-organized system to store the information about all the books present in the library and all the records of past book issues and histories in an online database, accessible to all users who create an account on this system.

Our library management system would allow users to create a user-account and after creating the account, the user will be able to browse all the available books in the library. If the particular book the user is looking for is available, then the user will have the option to borrow that book from the library. If the user borrows a book, the book will be issued against his/her name and a record of the issue along with the time and date of issue and estimated return date will be created and stored against the user’s name in the database. If the user fails to return the book within the assigned date, he/she will be penalized with a small fine which will be displayed in the user’s account until the fine is paid. The system also allows a signed-in user to view a history of all the books which were borrowed by the user. Also, a reading list feature will be available on the website that allows the user to form a list of books the user wishes to borrow and read from the library. Once the book is returned by the user after borrowing, that particular book will be removed from the Reading-list and added to the history of the user.

The website will be managed by admins whose credentials will be manually input in the database and provided to the admins for logging in. Admins will hold a certain degree of privilege over the normal user-account. Once the admin logs into his/her account, he/she will be able to add books to the database through the website, remove a book if needed and review a particular user account. For an admin to review a user account, he/she only needs the ID of the user in interest and looks up the user from the database through the website. From there, the admins can take a plethora of actions based on the requirements such as review user info, history, books-issued or any due fine etc.

Project: Online Library Management System

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| **Home**  This is the first page that the user sees when he/she enters the site. This page will allow the user to log into their respective accounts. Furthermore, this page provides an option for new users to create an account on this site. Also, if someone wishes to donate a book to the library, there is a link to a page that holds contact info. | | |
|  | **Enter Email** | |
|  |  | Contains a data field a user/admin will enter his/her email. After entering the email, the person will be directed to another part of the homepage where they will be asked to enter their account password. |
|  | **Enter Password** | |
|  |  | Contains a data field that will take the corresponding password from the user/admin and verify the credentials against the records in the database. There will also be an option of “Forgot Password?” which will attempt to reset the user’s password after a verification email. |
|  | **Sign Up** | |
|  |  | Clicking on it will take the user to the sign-up page where he/she can open a new account on our system. |
|  | **Want to Donate?** | |
|  |  | Clicking on it will take the user to another page housing the contact address, email and phone numbers of the library management. |

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| **Account Home (User):**  This page acts as a dashboard for the user. It contains several options which are - Browse books, issued books, History, Reading list. If a user clicks on any of these options, she/he will be redirected to that page. | | |
|  | **Browse books:** | |
|  |  | This page will have a search bar where the user will be able to search his/her desired books. If the book is in the database, then the user will be able to check the book’s current availability and can borrow the book if he/she likes. |
|  | **Issued books:** | |
|  |  | In this page the user will be able to see the books that he/she borrowed and will be able to return the books by clicking the “return book” option. It will also show the issue date, estimated return date and fine amount for each book (The program is designed to cut a specific fine amount if the user fails to return a book by the estimated date). |
|  | **History:** | |
|  |  | The user will be able to see all the books he/she previously borrowed with their corresponding issued and return dates and keep a list of them. |
|  | **Reading list:** | |
|  |  | The user can add books that he/she wishes to read (maybe in the near future) and can check/update the list. |

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| **Account Home (Admin):**  This page acts as a dashboard for the admin. The options available on this page are - Add book, Remove book, Review account. If an admin clicks on any of these options, then she/he will be redirected to that page. | | |
|  | **Add** **books:** | |
|  |  | The admin can add new books on the database with essential information. |
|  | **Remove books:** | |
|  |  | In this page the admin will be able to update the already existing books and remove them if necessary. |
|  | **Review account:** | |
|  |  | This page will allow admins to look up a particular user and review his/her account information, fines associated with the account, view the issued/history of books etc. |

**LINK TO GIT HUB REPOSITORY:**

**https://github.com/Masud-Hassan/Library-Management-System**