Experiment No:01 Date: 8-10-2021

Aim: To analyze requirements and prepare SRS for library management System.

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1. Introduction

1.1 Purpose: The main purpose of Library management system is to maintain the details of all kinds of books in one platform. So that the user can easily receive book from library. The circulation system between user and libraries will be in simple manner. The user can check his required book from their home.

1.2 Scope:

As the library system is updated into an android application so the user can

know the details of the books availability, maximum limit through their phones. Library managment system also provides the information's like details of books, limitations on issuing books, fine on keeping the book even after the return date, no. of books available, no. of books issued. Library managment system will keep track of all books information.

1.3 Acronyms and abbreviations

UML - Unified modeling language

OOA - object oriented Analysis

OOD - object oriented Design

OOP - object oriented programming

1.4 References:

- "IEEE Recommended practice for software Requirements specifications", Technical Report, IEEE computer society, 1998.
- www.academia.edu

1.5 Documentation overview:

This document describes the purpose, scope, interface, functional requirements, non functional requirements of the library managment system in detail. In purpose the main purpose of this software is discussed in scope section the necessary of the software. It tells the benefits of this softwa re. In functional requirements we can know about behavior or functions that the system supports.

2. Functional Requirements

1. Register / Sign up
2. a) Search a book
   b) Reserve book
3. a) ISSue Book
   b) Return Book
   c) Alert Book Return
4. a) maintain Inventory
   b) Report Generation
5. a. Feedback
   b. Recommend book
   c. Help
6. Accoemt maintainance.

functional Requirement 1: Register / sign up

Input: The user will give his details like Name, RollNo, branch, mail id and the confirmation password.

Processing: After entering the details the Software checks wheather the user entered data is valid or not. If all conditions are perfect the software will assign the account to user with his information.

output: our profile with our mail id will be created the software will generate a id for the user.

functional Requirement 2: a) Searchabook

Input: The user will enter name of the book that he required and also the name of the author.

processing: the user entered name will be checked with the software catalog and if there is any match with that the user

Can get details of book.

output: If there is any match with the software database then the user entered book details will be displayed. If there are no matches then the Software will show No match is faird.

functional Requirement 2: b) Reserve a book

input: The user will enter the name of the book that he required.

processing: The software will check whether the user entered is present in the catlog or not. If the entered book is not present then the software will reserve a book for the user.

output: (that particular book will be resered for that particular person) the software will reserve book for the user.

functional Requirement 3 a) Issue a Book

input: If the user entered book name is

available in the library database then the book we will be issued to the member

processing: If book is available then book will be issued if not they can reserve the book. and also if there is no reservations on that book, then the software will make the user to access the book.

output: The book is issued to the member. Conformation for book issue.

functional Requirement 3 b) Retun Book.

input: The member will enter the details of the book that he want to return.

procesing: Software checks for the book details. System will check whether the book is returned within due date or not. If not then the user must pay the fine as the system will ask the member to pay fine.

output: The number of books in the library will be incremented to 1 of the category of the book the user returned.

functional Requirement 3: Alert Book return

input: 3a At the time of issue book the system will fix the return data of the book.

processing: When the user is issued with the book and the return date of the is in with in two days the system will send notifications to the user member.

output: The user will get the notification as the return date of the book is (near) soon and he want to return the book.

functional Requirement 4: maintain Inventory, Report Generation

input: there will be seperate software that updates the information about no of books returned, Students registered. It will automatically stores the dialy information.

procesing: the information processed automatically whenever books returned or updated from library

output: once the information is updated

Processing: The information given by the user is stored in ~~user~~ database of the system and everyone has the access to see it.

output: All the recommended books are displayed. The user entered book is added to the recommend book list.

Functional Requirement 6 Account maintainance

Introduction: Accounts of all the users are maintained by librarian.

Account maintainance involves the addition, deletion of the book.

input: Member id entered by the user.

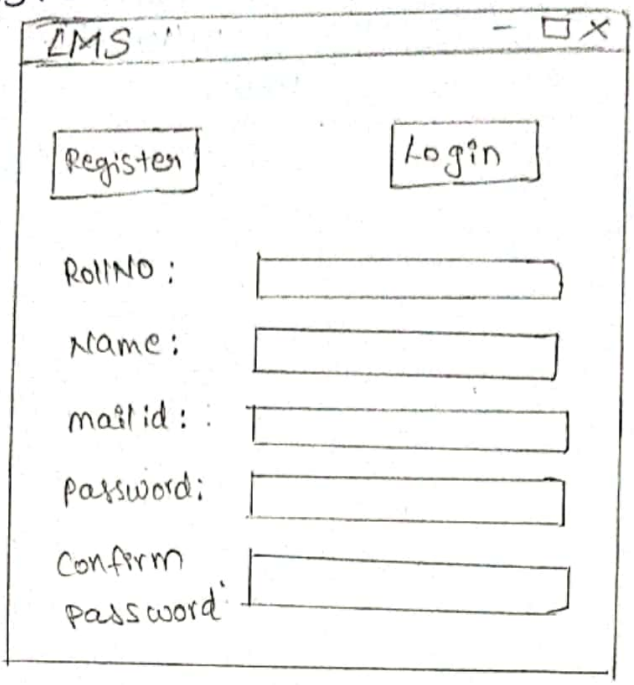
processing: The no: of books the user received, fine he paid the books he recommended will be opened.

output: The user account details will be displayed.

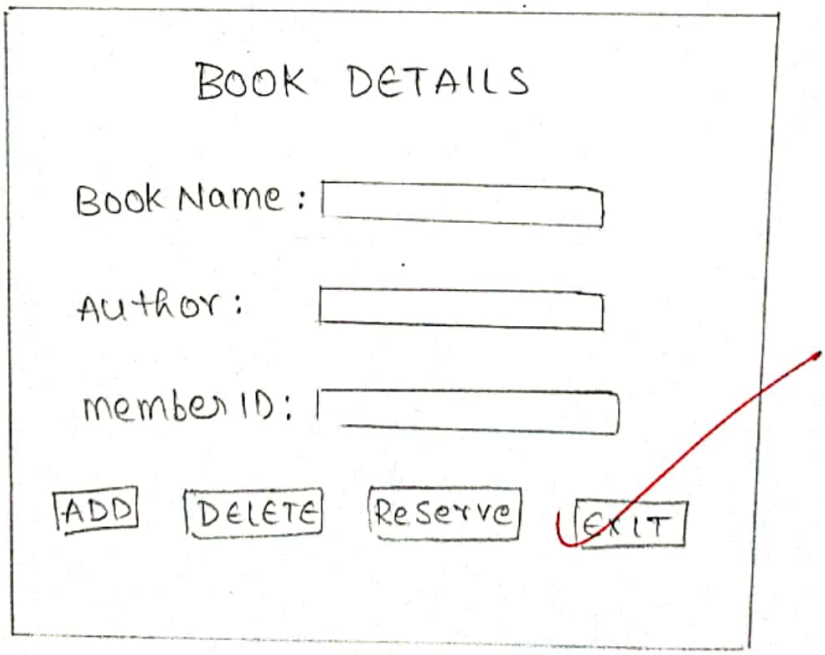
3. Interface Requirements

3.1 GUI

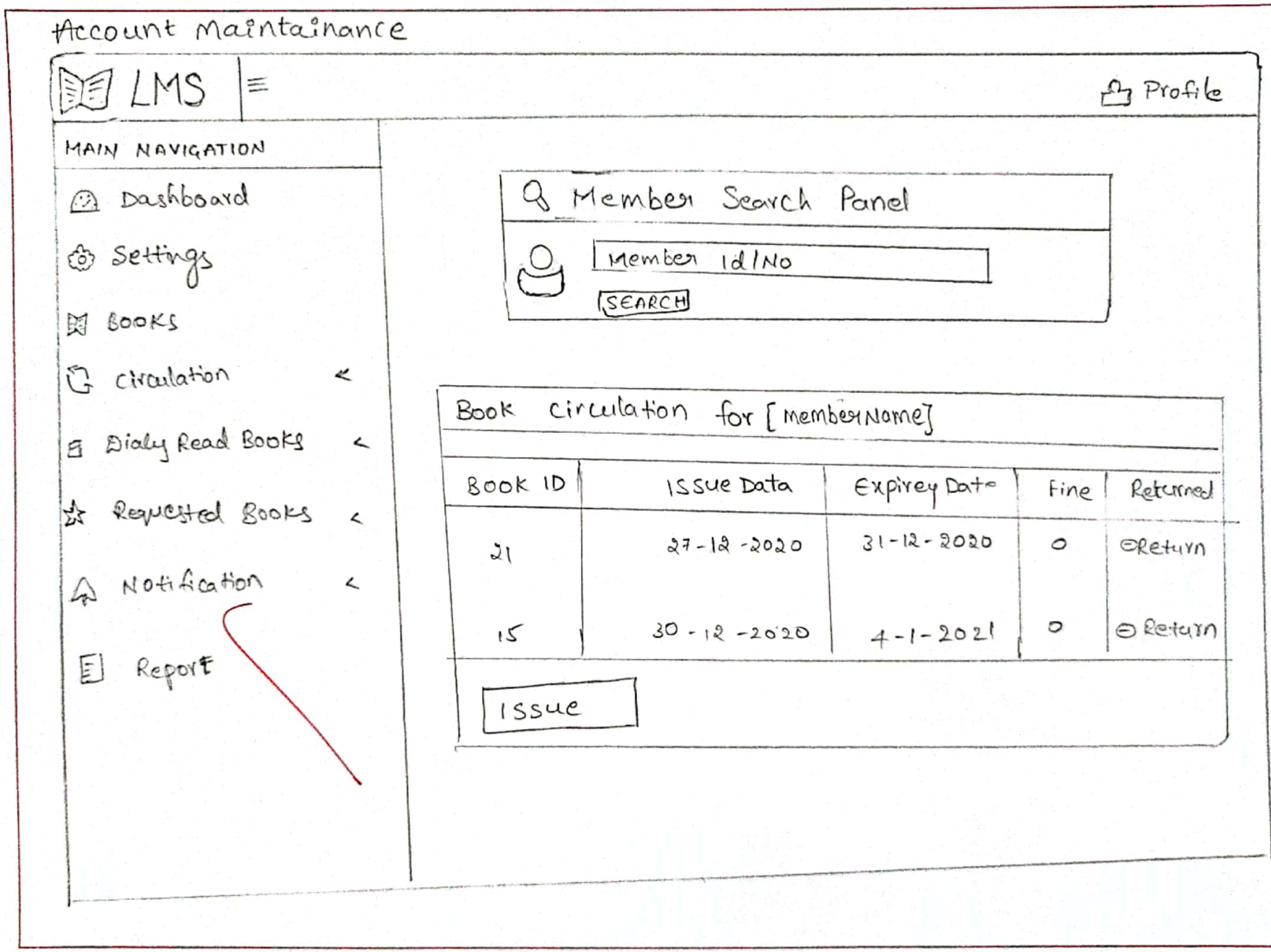
Login / Register :



Book search:



Account Maintainance



* Performance Requirements: This specifies the performance characteristics or nonfunctional aspects of library management system. The system should be able to handle large amount of data. Responses to view information should not take more than 5 seconds to appear on screen. The library must contain a well computer systems with good efficiency.

5. Design constraints:
The data about books and the student data must be private and secure. In LMS the hardware constraints include availability of number of servers, and limit to store information.

6. Non-functional requirements
6.1 Security: The system should use secured database. It should provide a password to login. The access to data should be given to librarian. Password must be kept to every information.

6.2 Availability: The system should be made available all the time.

6.3 Maintainability: There should be any option

-to add or delete or update any information related to books or users.

6.4 Reusability: The Library managment system provide reusability. It will enhances the reusability of the system.

7. operational scenarios:

The user database will be provided. The user database contain all the information like name, id, phone number, email address.

8. preliminary Schedule: The system should be designed within 5 months.