

SOFTWARE REQUIREMENT SPECIFICATION FOR ONLINE MANAGEMENT SYSTEM

Prepared by

Dhruv hastir

Proposed to

Geethanjali Anbalagan

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1. Introduction

With the increased number of readers library management system is required. This library management system focuses on improving the libraries in a city. This system provides the ease of issuing, renewing ,or reserving book from a library within your city through electronic devices like mobiles and tablets .The integrated management system is developed on android platform which basically focuses on issuing , renewing , and reserving of a book.

1.1 Purpose

The purpose of this project is to maintain the details of books and library members of different libraries. The main purpose is to keep up with circulation system between the clients and libraries , to issue books with one single library card , which also allows to search and reserve any book from different available libraries and to maintain details for about the user (fine , address , phone number) . Moreover the user can check all these features from their homes.

1.2 scope

- Manually updating the library system into android based application so that the user knows the details of the books available and maximum limit on borrowing via their computers or mobiles.
- The system provides information's like details of the books , insertion of the new books , deletion of lost books , limitation on issuing of books , fine on keeping the books more than 1 month from the issued date.
- Also users can provide their feedbacks.

1.3 Definition , Acronyms , Abbreviation:

Java- platform independence

SQL- Structured Query Language

DFD- Data Flow Diagram

CFD- Context flow diagram

ER- Entity Relationship

SRS- Software Requirement Specification

2. Overall description

2.1 PRODUCT PERSPECTIVE

The proposed library management system will be taking care of the current book details at any point of time. The book issue , book return will update the current book details automatically so that the user will get the updates regarding current book details.

2.2 Software requirement

- Front end :
 - Advanced Java
 - Android developer tool

- Back end :
- My SQL

2.3 Hardware requirement :

- Android version 2.3 ginger bread (minimum , android users)
- 2GB RAM
- 1.2 GHZ processor
- Intel i5
- Windows 7/8/8.1/10

2.4.1 Functional Requirement :

- R.1 : Register :

-Description: First the user will register/sign up. There are 2 types of users

-The library manager /head: The manager have to provide the details about the name of the library , address , email id

- R.1.1: Sign up
 - Input : Detail about the user as mentioned in the description .

- Output: Confirmation of registration status , and a membership number and password will be mailed to the user.
- Processing : All details will be checked thoroughly and if any error occurs , an error message will be displayed to the user or else new membership number and password will be generated.

- R.1.2: Login

- Input : Enter the membership number and password to login .
- Output: User will be able to use all features of software.

- R.2 : Manage books by user :

- R.2.1 : Books Issued

- Description : List of books will be displaced along with data of return .

- R.2.2 : Search

- Input: Enter the author's name along with the book to be issued
- Output: List of all the books related to the key word.

- R.2.3: Issues book
 - State: search the book the user wants
 - Input: Click the book the user wants
 - Output: Confirmation for book issue and an apology for failure in issue .
 - Processing: If the book selected is available then it'll be issued else error will be displayed.

- R.2.4: Renew book
 - State: Book is issued and is about to reach the date of return.
 - Input: Select the book to be renewed.
 - Output: Confirmation message will be displayed.
 - Processing: If the issued is already reserved by another person , error will be displayed and if not then confirmation message is shown.

- R.2.5: Return
 - Input: Return the book to the library.
 - Output: The issued list will be updated and the returned book will be listed out.

- R.2.6: Reserve book:
 - Input : Enter the details of the book
 - Output: Book successfully reserved.
 - Processing: If a book is issued by someone then the user can reserve it , so that later the user can issue it.

- R.2.7: Fine
 - Input : Check for the fines.
 - Output: Details about fines on different books issued by the user.
- Processing: The fine will be calculated , if it crossed the date of return and the user didn't renewed it then fine will be applied by Rs.30 per day.

- R.3. : Manage book by librarian

2.4.2 Non functional requirements

- Usability Requirement :

The system shall allow the users to access the system from the phone using android application .

An android application is used as an interface by the system. The system is user friendly and makes the system easy.

- Availability requirement :

The system should be 100% available to the user and everytime i.e

24/7

- Efficiency Requirement :

Even if the system fails , the system should be recovered by an hour or less.

- Accuracy

The system shall provide 100% access reliability

- Performance requirement :

The information is refreshed depending upon the updates that have occurred or not in the application. The system should respond to user in not more than 2 seconds from the time of request submittal.

- Reliability Requirement :

The system should be 100% reliable due to importance of data and the damages that can be caused by incorrect or incomplete data.

2.5 USER CHARACTERISTICS

We have three levels of users:

-User module: User will check availability of books

. Issue book

. Reserve book

. Return book

. Fine details

-Library Module:

. Update details of books.

-Administration Module:

. Register user

. Entry book details

. Book details



