Software Requirements Specification
40.Library Management System

Roll number:B190512CS

Name:Guntupalli Sudharshan

Project Owner:Mr.Shah Vidit Chiragbhai

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1.Introduction

The introduction of the Software Requirements specification will provide a detailed description of the requirements for the Library management system. This SRS will provide the foundation for the project. From this SRS the a simple library management system can be designed and constructed.

1.1 Document purpose

The purpose of this document is to provide information about requirements as well as description of the project to be designed.Contains a detailed description of all the features to be implemented in the project.

1.2 Product scope

Purpose and goal of this product is to provide a simple way to manage a library in a college and decrease manual work by the employees in library as far as possible.The benefit of this product is enabling sharing of books among students and ensuring that students has maximum scope to study books without any complex process to borrow books.

1.3 Abbreviations

App-Application

DB-Database

SRS-Software requirement specifications

1.4 Document conventions

This document follows the IEEE formatting requirements. Arial font size 12 has been used throughout the document for text. Use of italics for comments. Use of bold for headings. Document text is single spaced and 1" margins maintained in this document.

1.5 References and Acknowledgements

1. IEEE formatting template.

2.Overall Description

2.1 Product overview

Developing a simple mobile based application which facilitates users with operations such as adding new books,borrowing and returning books to library.Maintains list of books along with details of students who borrowed them,capable of imposing fines,includes exception handling and has database connection achieved through MySQL.

2.2 Product Functionality

1.add a new book to library database

2.view all books in library

3.processing borrow operation

4.processing return operation

5.remove book from library

3.Specific Requirements

3.1 Functional requirements

F1:The system shall add new book name along including location in library to library database.

F2:The system shall list all books in database along with their availability to be borrowed and location in library

F3:The system shall display "no books in library" message whenever database is empty.

F4:The system shall check whether book id entered by user is present in database or not whenever user requests a book for borrowing.

F5:The system shall check whether book id entered by user is borrowed by some other student or not whenever user requests a book for borrowing.

F6:The system shall display details of the student who borrowed the book if user requests the borrowed book and expected date to be returned by the student to library.

F7:The system shall make the book not available when usr borrows and makes available when user returns it to library.

F8:The system shall restrict the user to a time constraint to borrow any book in library.
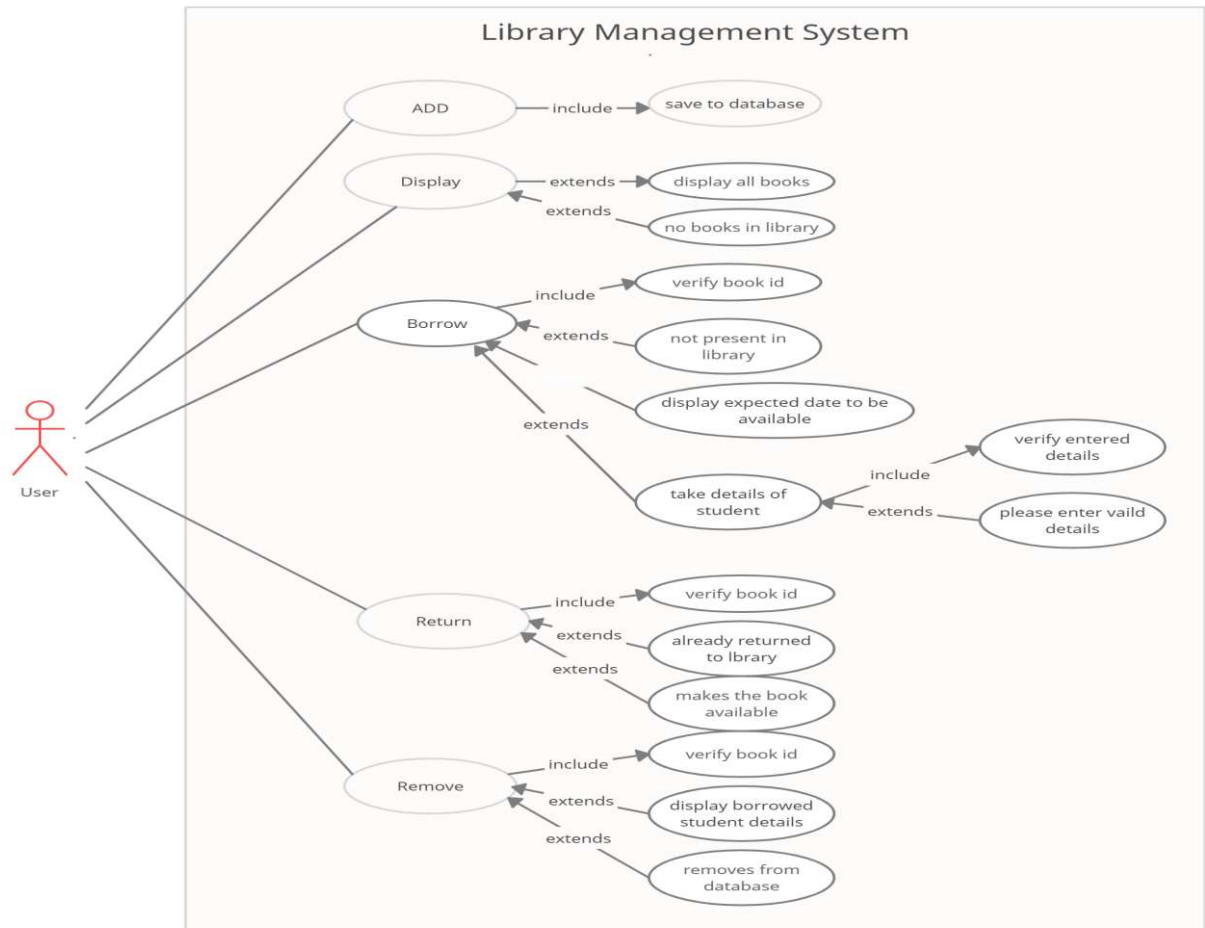
F9:The system shall check whether the book is already returned to lirary or not while a user is returning a book to library.

F10:The system shall check whether the book is borrowed by some student whenever user wants to remove the book from library database.

F11:The system shall take all the details entered by user while borrowing the book and verifies whether they are correct or not.

F12:The system shall remove a book permanantly from library

3.2 Use Case Model

Library Management System

3.2.1 Use case #1(Add)

Purpose-Allow user to add new book to library

Requirements Traceability-F1

Actors-User

3.2.2 Use case #2(Display)

Purpose-Display all books in library

Requirements Traceability-F2,F3

Actors-User

3.2.3 Use case #3(Borrow)

Purpose-Allow user to borrow a book

Requirements Traceability- F4,F5,F6,F8,F11

Actors-User

3.2.4 Use case #4(Return)

Purpose-allow user to return the book

Requirements Traceability-F7,F9

Actors-User

3.2.5 Use case #5(Remove)

Purpose-allow user to remove book from library

Requirements Traceability-F10,F12

Actors-User