

Software Requirement Specification

For

RKU Canvas LMS

Submitted by : AVINASH CHOVIYA

Enrollment No : 20SOECE11083



**DEPARTMENT OF COMPUTER ENGINEERING**

SCHOOL OF ENGINEERING,  
RK UNIVERSITY,  
RAJKOT, GUJARAT-36

**Category:-**

RKU Canvas LMS is a web-app, we can also say that it is a desktop-app or a mobile application because it supports all technical systems.

**Purpose:-**

Canvas is used for communication between Student and faculty. It is mainly used for educational purpose . Faculties can provide their course material for students through this platform.

**Objectives:-**

The main objective of this project is account, courses(which are provide by faculties), announcements etc.

**Introduction about this product:-**

Canvas is a Learning Management Platform. When you log in to Canvas, the first thing you see is the Dashboard, which provides a high-level overview of your current courses. The Dashboard can be displayed in three different viewing options

**Difference between existing system and proposed system:-**

Right now in this product has less scalability that's why response time of this product is being higher for users.

## **Tools & Technologies:-**

- Overview
- Tool under review
- communication
- Content creation, presentation and management
- Course management
- Digital courses and learning tools

## **Hardware specification:-**

- Operating system
- Screen size
- Internet speed
- Screen readers
- Computer speed and processor

Software Requirement Specification  
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## **Category**

Student Management System is web application we can say that is desktop application or mobile application

## **Purpose**

The purpose this documents is to present a detailed description of the Student Management System. It will explain the purpose and features of the software, the interfaces of the software, what the software will do, the constraints under which it must operates and how the software will react to external stimuli. This document is intended for both the end users and the developers of the software.

## **Objective**

This document covers the requirements for the Student Management System. This software will provide a graphical environment in which the users of the system will be able to perform various operations that are associated with storing, marinating, updating and retrieving Student information. The purpose of this is to guide developers in selecting a design that will be able to accommodate the full-scale application. The system will capture information about student's personal details lectures and the courses Storing updating and retrieving in a fast and accurate way.

## **Introduction**

Student management system has become important factors in modern education field. This system should help the institutional to streamline the administrative task and provide real-time access to the data. Building this system in web based interface will further help the ease of accessibility through any web browser. The study findings enable the definition of the project problem statement, its objectives, scopes and advantages of the student management system.

## **Tools and Technologies**

Increases Productivity Streamlines and simplifies tasks Improved Communication  
Efficient Scheduling Saves Natural Resources Access from Anywhere

- Operating system
- Screen size
- Internet speed
- Screen readers
- Computer speed and processor

## **Hardware Specification**

- Hardware Environment - Dual Core 2nd generation/
- System Configuration - RAM-512 MB HDD-80GB
- Operating system - Windows XP/Vista/7/8/8.1

# Library Management System

(SRS Report)

Submitted by : AVINASH CHOVIYA

Enrollment No : 20SOECE11083

College Name : RK University

Department : School Of Engineering



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# **1. INTRODUCTION**

With the increase in the quantity of readers, better control of libraries device is required. The Library control gadget specializes in improving the management of libraries in a metropolis or city. “What If you can check whether a book is available in the library through your phone?” The integrated Library management machine presents you the convenience of issuing, renewing, or reserving a e-book from an library inside your city through your phone. The Integrated Library Management system is developed on the android platform which basically focuses on issuing, renewing and reserving a book.

## **1.1 PURPOSE**

The document only covers the requirements specifications for the Library Management System. The main purpose of this project is to maintain a easy circulation system between clients and the libraries, to issue books using single library card, also to search and reserve any book from different available libraries and to maintain details about the user (fine, address, phone number).Moreover, the user can check all these features from their home.

## **1.2 SCOPE**

- Manually updating the library machine into an android based totally software in order that the user can recognize the details of the books to be had and most restrict on borrowing from their computer and also through their phones.
- The ILM System provides information's like details of the books, insertion of new books, deletion of lost books, limitation on issuing books, fine on keeping a book more than one month from the issued date.
- Also user can provide feedback for adding some new books to the library.

## **1.3 Definition, Acronyms, Abbreviation:**

- JAVA -> platform independence
- SQL -> Structured query Language
- DFD -> Data Flow Diagram
- CFD -> Context Flow Diagram



- ER -> Entity Relationship
- IDE -> Integrated Development Environment
- SRS -> Software Requirement Specification

## **2. OVERALL DESCRIPTION**

### **2.1 Product Perspective**

The implementation of Library Management starts with entering and updating master records like book details, library information. Any further transaction like book issue, book return will automatically update the current books. The proposed Library Management System will take care of the current book detail at any point of time. The book issue, book return will update the current book details automatically so that user will get the update current book details.

### **2.2 Product Functions**

- The main purpose of this project is to reduce the manual work.
- This software is capable of managing Book Issues, Returns, and Calculating/Managing Fine. Generating various Reports for Record-Keeping according to end user requirements.

### **2.3 User Classes and Characteristics**

We have 3 levels of users:-

- User module: In the user module, user will check the availability of the books.
  - Book return
  - Comment
- Librarian module: In this librarian module, librarian can issue book or register user.
  - Register user
  - Comment
  - Book Issue
- Administration module: The following are the sub module in the administration module.

- Register user
- Entry book details
- Book issue
- Comment Reading
- Update, Edit or Delete of any records.

## **2. OVERALL DESCRIPTION**

### **2.1 PRODUCT PRESPECTIVE**

The proposed Library Management System will take care of the current book detail at any point of time. The book issue, book return will update the current book details automatically so that user will get the update current book details.

### **2.2 SOFTWARE REQUIREMENT**

- Front end:
  - Android developer tool
  - Advance java
- Back end:
  - MySQL

### **2.3 HARDWARE REQUIREMENT**

- Android version 2.3 ginger bread(minimum, android user's)
- 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 have to register/sign up. There are two different type of users.
  - The library manager/head : The manager have to provide details about the name of library ,address, phone number, email id.
  - Regular person/student : The user have to provide details about his/her name of address, phone number, 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 generated and mailed to the user.
- Processing: All details will be checked and if any error are found then an error message is displayed else a membership number and password will be generated.

- **R.1.2 : Login**

- Input: Enter the membership number and password provided.
- Output : User will be able to use the 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 name of author's name of the books to be issued.
- Output : List of books related to the keyword.

- **R.2.3 : Issues book**

- State : Searched the book user wants to issues.
- Input : click the book user wants.
- Output : conformation for book issue and apology for failure in issue.
- Processing : if selected book is available then book will 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 : conformation message.
- Processing : If the issued book is already reserved by another user then error message will be send and if not then conformation message will be displayed.

- **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.
- Description : If a book is issued by someone then the user can reserve it ,so that later the user can issue it.

- **R.2.6 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 did not renewed if then fine will be applied by Rs 10 per day.

- **R.3 Manage book by librarian**

- **R.3.1 Update details of books**

- **R.3.1.1 Add books**

- Input : Enter the details of the books such as names ,author ,edition, quantity.
- Output : confirmation of addition.

- **R.3.1.2 Remove books**

- Input : Enter the name of the book and quantity of books.
- Output : Update the list of the books available.

## **2.4.2 Non Functional Requirements**

- **Usability Requirement**

The system shall allow the users to access the system from the phone using android application. The system uses a android application as an interface. Since all users are familiar with the general usage of mobile app, no special training is required. The system is user friendly which makes the system easy.

- **Availability Requirement**

The system is available 100% for the user and is used 24 hrs a day and 365 days a year. The system shall be operational 24 hours a day and 7 days a week.

- **Efficiency Requirement**

Mean Time to Repair (MTTR) - Even if the system fails, the system will be recovered back up within an hour or less.

- **Accuracy**

The system should accurately provide real time information taking into consideration various concurrency issues. The system shall provide 100% access reliability.

- **Performance Requirement**

The information is refreshed depending upon whether some updates have occurred or not in the application. The system shall respond to the member in not less than two seconds from the time of the request submittal. The system shall be allowed to take more time when doing large processing jobs. Responses to view information shall take no longer than 5 seconds to appear on the screen.

- **Reliability Requirement**

The system has to be 100% reliable due to the importance of data and the damages that can be caused by incorrect or incomplete data. The system will run 7 days a week, 24 hours a day.

## **2.5 USER CHARACTERSTICS**

We have 3 levels of users :

- User module: In the user module, user will check the availability of the books.
  - Issue book
  - Reserve book
  - Return book
  - Fine details
- Library module:
  - Add new book
  - Remove books
  - Update details of book

- Administration module: The following are the sub module in the administration module :

- Register user
- Entry book details
- Book issue

## 2.6 CONSTRAINTS

Any update regarding the book from the library is to be recorded to have update & correct values, and any fine on a member should be notified as soon as possible and should be correctly calculated.

## 2.7 Assumptions and Dependencies

The product needs following third party applications for the development of the project:

- Android Studio (for development of android based applications)
- Netbeans
- Photoshop (for editing layouts, icons, buttons, etc)