Visvesvaraya Technological University

Belagavi-590 014, Karnataka

A Mini Project Report on

"LIBRARY MANAGEMENT ANDROID APP"

Submitted in partial fulfilment of the requirements for the award of

Bachelor of Engineering in
Computer Science and Engineering

Submitted By

ROHAN Y PATIL **USN: 2JI18CS035**

BHAVANA Y KASETTY **USN: 2JI18CS021**

Under the Guidance of

Prof. PAVAN UGHADE

Department of Computer Science and Engineering

Sri Bhagawan Mahaveer Jain Educational & Cultural Trust's

Jain College of Engineering

Belagavi-590 014

Academic Year 2020-21

Sri Bhagawan Mahaveer Jain Educational & Cultural Trust's

Jain College of Engineering

Belagavi-590 014

Department of Computer Science and Engineering

Certificate

This is to certify that the mini-project entitled **"LIBRARY MANAGEMENT"** is carried out by **Mr.ROHAN Y PATIL,** bearing **USN-2JI18CS035,** a bonafide student of **Jain College of Engineering, Belagavi**, in partial fulfilment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** from **Visvesvaraya Technological University, Belagavi**, during the academic year **2020-21.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report. The mini project report has been approved as it satisfies the academic requirements in respect of **Mobile Application Laboratory with Mini Project** prescribed for the said degree.

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Prof. Pavan Ughade	**Prof. Pavan Ughade**
Guide	**HOD, CSE**
Name of Examiner	**Signature of Examiner**
1._____	**1.**_____
2._____	**2.**_____

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Certificate

This is to certify that the mini-project entitled **"LIBRARY MANAGEMENT"** is carried out by **Ms.BHAVANA Y KASETTY,** bearing **USN-2JI18CS021,** bonafide students of **Jain College of Engineering, Belagavi**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** from **Visvesvaraya Technological University, Belagavi**, during the academic year **2020-21.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report. The mini project report has been approved as it satisfies the academic requirements in respect of **Mobile Application Laboratory with Mini Project** prescribed for the said degree.

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ACKNOWLEDGEMENT

The satisfaction and euphoria that accompany the progress and completion of any task would be incomplete without the mention of the people who made it possible, whose constant guidance and encouragement ground my efforts with success.

I consider it is a privilege to express my sincere gratitude and respect to all those who guided and inspired me.

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I am thankful to ***Dr. K. G. Vishwanath***, Principal, JCE, Belagavi for providing us with the necessary facilities for carrying out this project work successfully.

ABSTRACT

Online Library Management System is a system which maintains the information about the books present in the library, their authors, the members of library to whom books are issued, library staff and all. This is very difficult to organize manually. Maintenance of all this information manually is a very complex task. Owing to the advancement of technology, organization of an Online Library becomes much simple. The Online Library Management has been designed to computerize and automate the operations performed over the information about the members, book issues and returns and all other operations. This computerization of library helps in many instances of its maintenances. It reduces the workload of management as most of the manual work done is reduced

TABLE OF CONTENTS

1. INTRODUCTION

1.1 Android studio

Android Studio is the official integrated development environment (IDE) for Google's Android operating system, built on JetBrains' IntelliJ IDEA software and designed specifically for Android development. It is available for download on Windows, macOS and Linux based operating systems or as a subscription-based service in 2020. It is a replacement for the Eclipse Android Development Tools (E-ADT) as the primary IDE for native Android application development.

Android Studio was announced on May 16, 2013 at the Google I/O conference. It was in early access preview stage starting from version 0.1 in May 2013, then entered beta stage starting from version 0.8 which was released in June 2014.The first stable build was released in December 2014, starting from version 1.0.

On May7,2019, Kotlin replaced Java as Google's preferred language for Android app development. Java is still supported, as is C++.

1.2 Features

A specific feature of the Android Studio is an absence of the possibility to switch autosave feature off.

The following features are provided in the current stable version:

Gradle-based build support

Android-specific refactoring and quick fixes

Lint tools to catch performance, usability, version compatibility and other problems

Pro Guard integration and app-signing capabilities

Template-based wizards to create common Android designs and components

A rich layout editor that allows users to drag-and-drop UI components, option to preview layouts on multiple screen configurations

Support for building Android Wear apps

Built-in support for Google Cloud Platform, enabling integration with Firebase Cloud Messaging (Earlier 'Google Cloud Messaging') and Google App Engine

Android Virtual Device (Emulator) to run and debug apps in the Android studio

1.3 System Requirements

The Android Emulator has additional requirements beyond the basic system requirements for Android Studio, which are described below:[30]

- SDK Tools 26.1.1 or higher;
- 64-bit processor;
- Windows: CPU with UG (unrestricted guest) support;
- Intel Hardware Accelerated Execution Manager (**HAXM**) 6.2.1 or later (HAXM 7.2.0 or later recommended).

The use of hardware acceleration has additional requirements on Windows and Linux:

- Intel processor on Windows or Linux: Intel processor with support for Intel VT-x, Intel EM64T (Intel 64), and Execute Disable (XD) Bit functionality;
- AMD processor on Linux: AMD processor with support for AMD Virtualization (AMD-V) and Supplemental Streaming SIMD Extensions 3 (SSSE3);
- AMD processor on Windows: Android Studio 3.2 or higher and Windows 10 April 2018 release or higher for Windows Hypervisor Platform (WHPX) functionality.

To work with Android 8.1 (API level 27) and higher system images, an attached webcam must have the capability to capture 720p frames

2.SOFTWARE REQUIREMENT SPECIFICATION

2.1 Software Requirements

- Operating System : Windows 10 or Higher
- Programming Language : JAVA
- Microsoft Visual Studio 2005 or higher: The Software used here is Android Studio.

2.2 Android Phone or Tablets

- Android v5.0 or higher

2.3 Hardware Requirements

This package has been developed on:

- Processor : Intel Core
- Processor Speed : 2.50GHz
- RAM : 32 MB or Higher

3.OVERVIEW OF PROJECT

The main motto of this Library Management Project It is used by librarian to manage the library using a computerized system where he/she can add new books, issue books to user, re-issue books , return books and collect the fine

The main scope of the mobile app is that user can check the available books in the library and request for reissue of book. See the books that has been issued. User friendly and simple GUI is used in this app.

1.Book:

- A unique book id is given to every books.
- No. of available units of the book can be seen from the app.
- Books can be Categorized department wise.

AIM OF THE PROJECT

The main motto of this Library Management Project It is used by librarian to manage the library using a computerized system where he/she can add new books, issue books to user, re-issue books , return books and collect the fine.

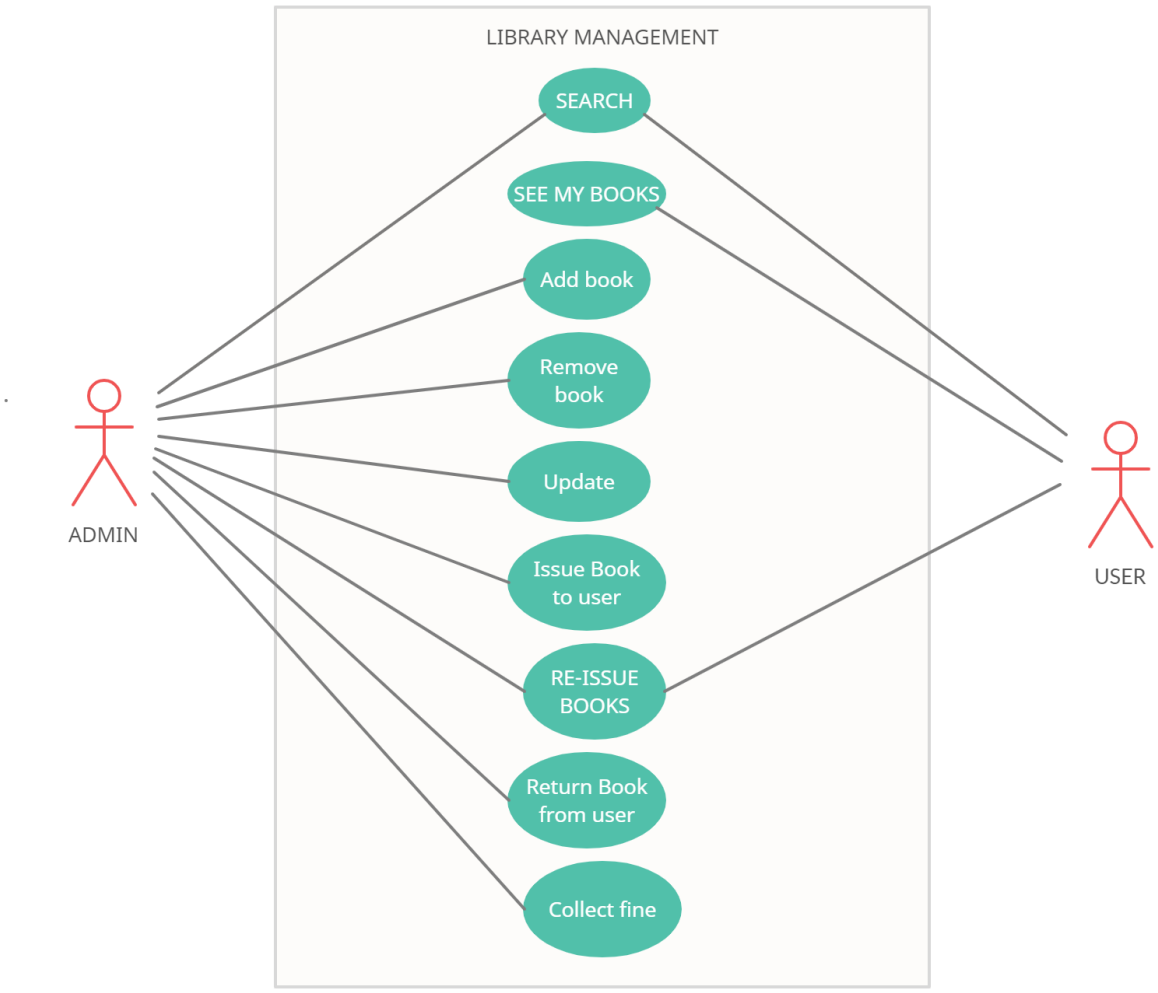
4. MODULES DESCRIPTION

1.User:

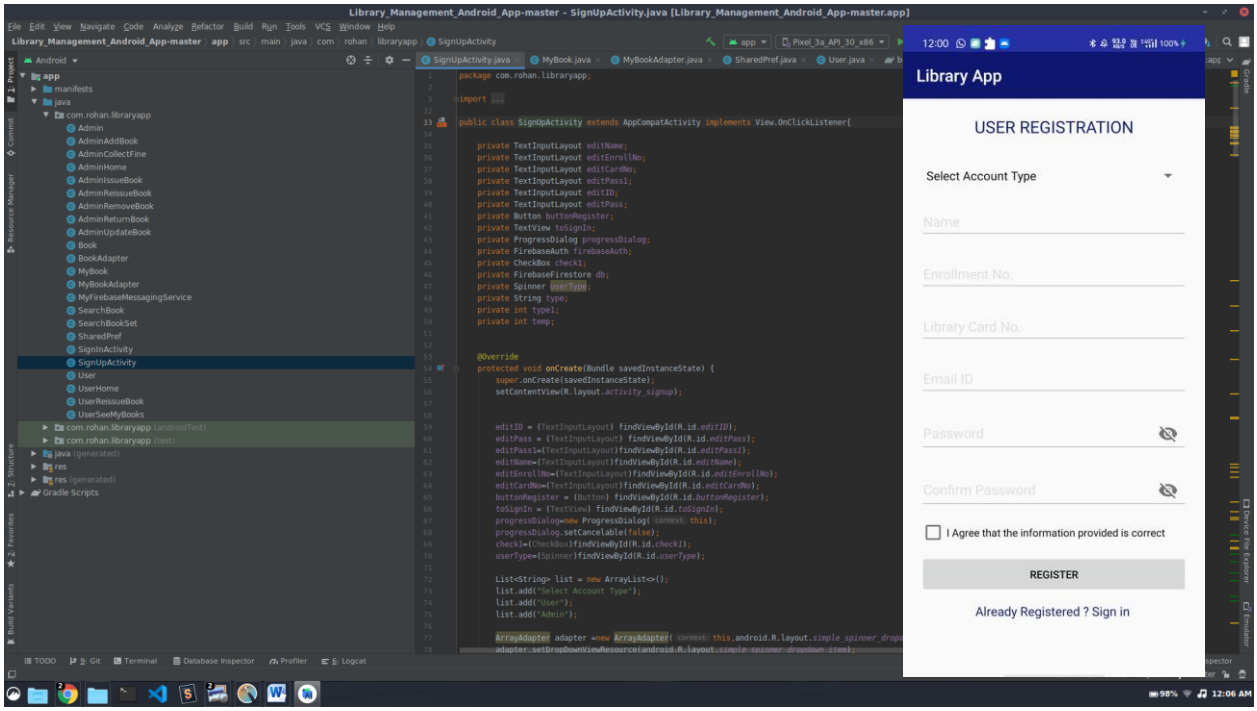
- User can search for available books in the library.
- User can see the books he has been issued.
- User can Re-issue the book.

2.Admin

- Admin can search for available books in the library.
- Admin can add and delete books in the app.
- Admin can update the no. of available books in the library.
- Admin can issue the books to the user.
- Admin can return book from user.
- Re-issue book to the user.
- Admin can collect fine from the user if he fails to return in time.

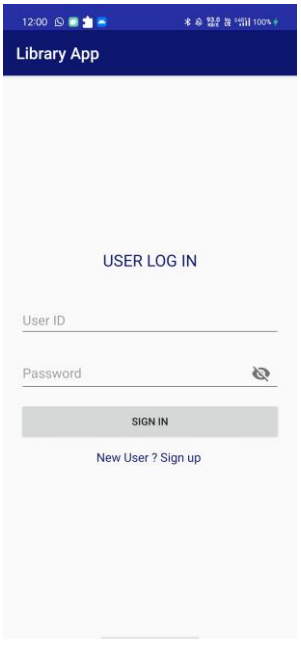


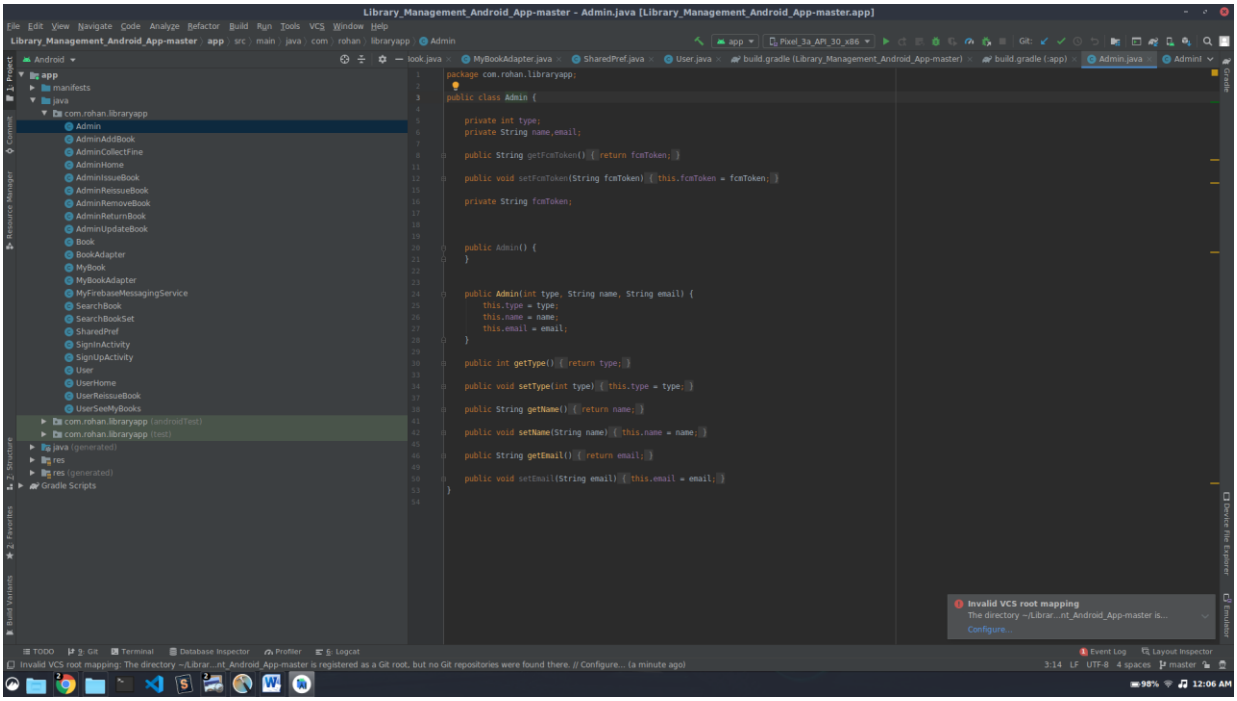
Use Case Diagram for Library Management



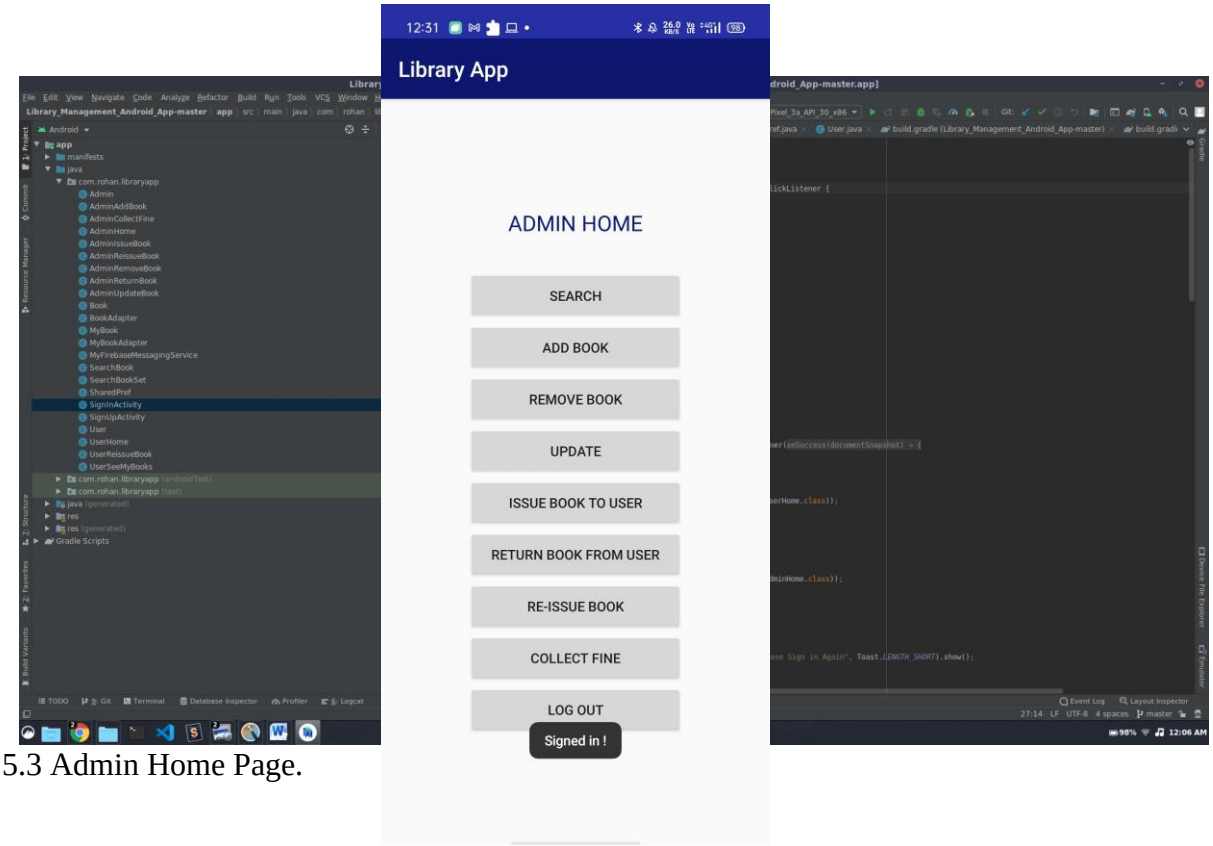
5.RESULTS

5.1 This is the output for SignUP.

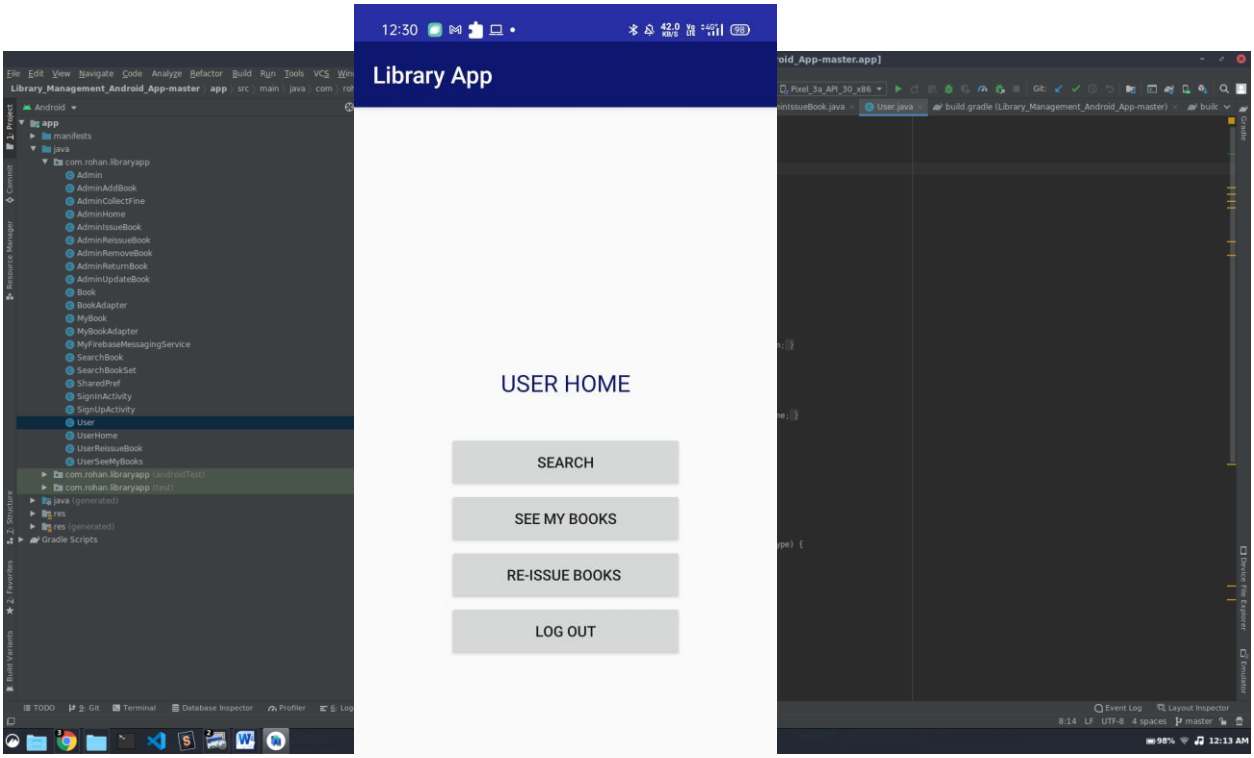




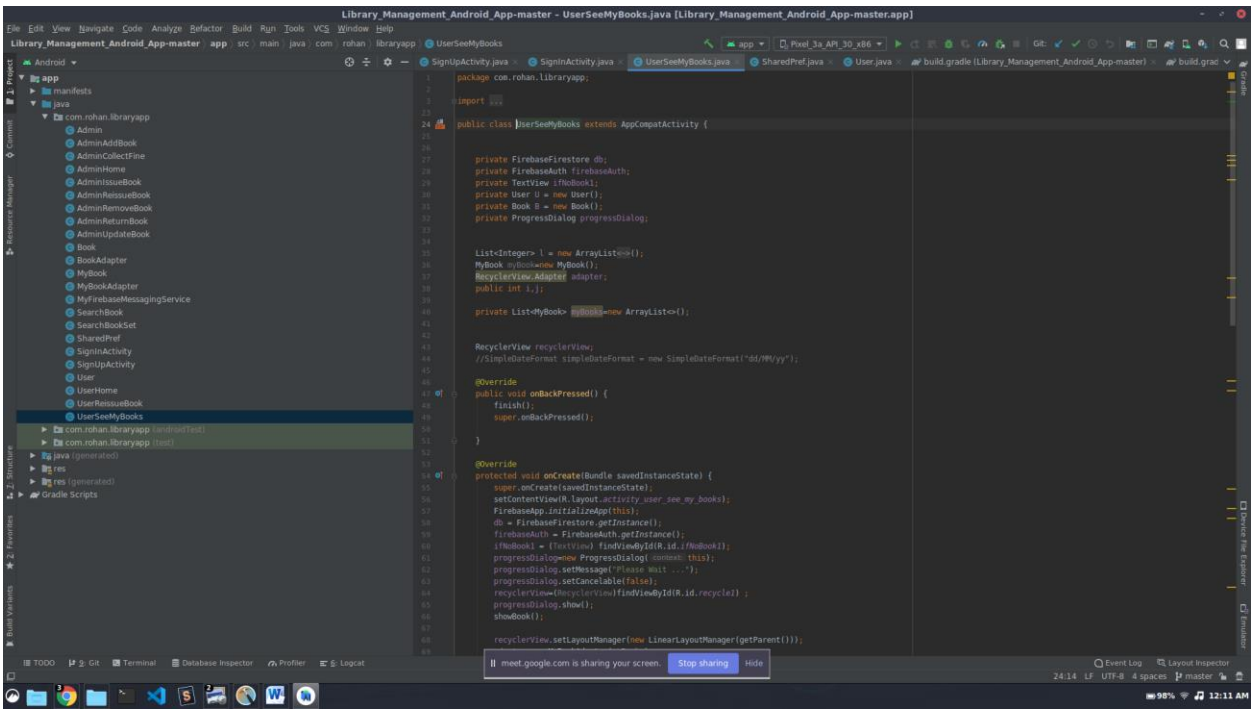
5.2 This is the output for Login



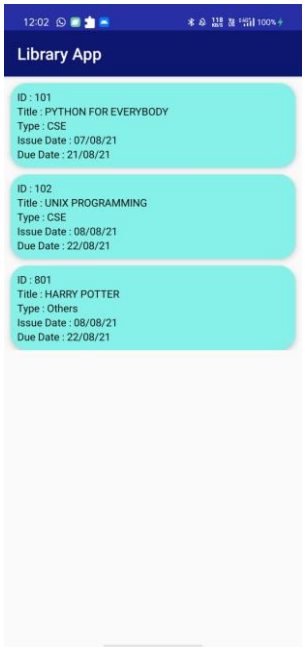
5.3 Admin Home Page.

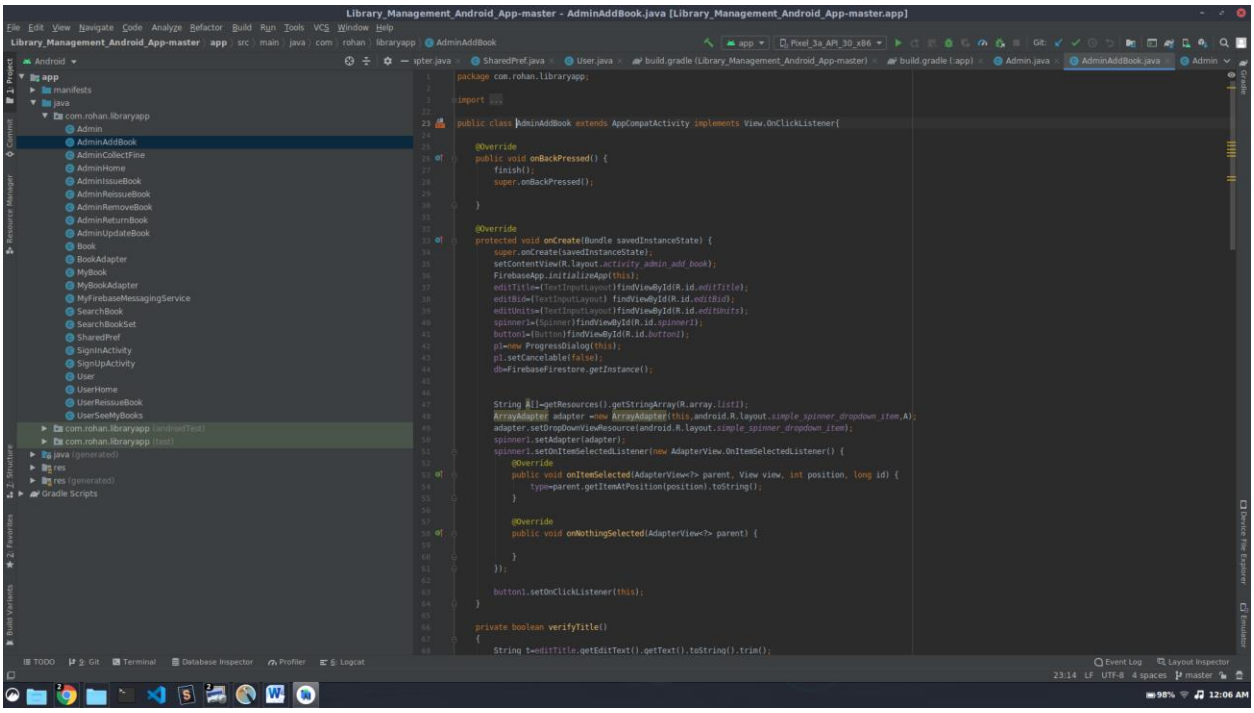


User Home Page

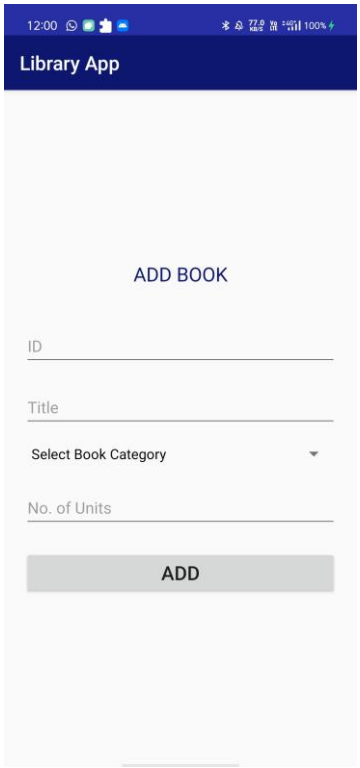

Library_Management_Android_App-master - UserSeeMyBooks.java [Library_Management_Android_App-master.app]
package com.rohan.libraryapp;
public class UserSeeMyBooks extends AppCompatActivity {
meet.google.com is sharing your screen.
Stop sharing
Hide

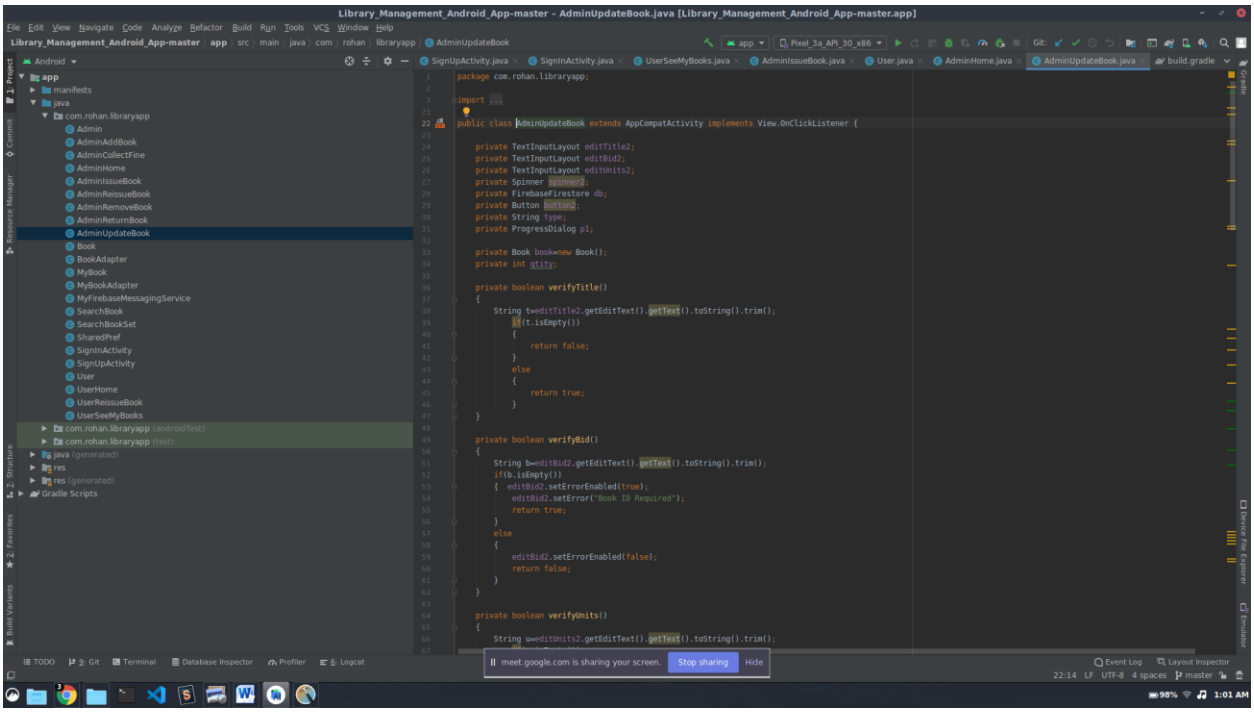
See My Book


12:02
Library App
ID : 101
Title : PYTHON FOR EVERYBODY
Type : CSE
Issue Date : 07/08/21
Due Date : 21/08/21
ID : 102
Title : UNIX PROGRAMMING
Type : CSE
Issue Date : 08/08/21
Due Date : 22/08/21
ID : 801
Title : HARRY POTTER
Type : Others
Issue Date : 08/08/21
Due Date : 22/08/21

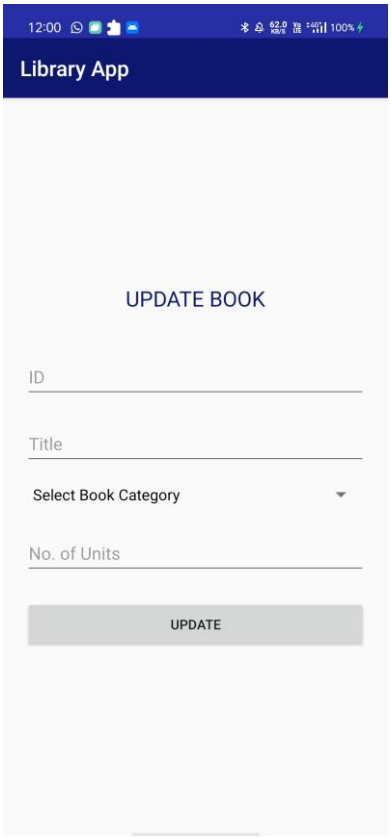


Admin Add Book





Admin Update Book



Conclusion

The entire project has been developed and deployed as per the requirements stated by the user, it is found to be bug free as per the testing standards that is implemented. The system at present does not take care off the money payment methods, as the consolidated constructs need SSL standards and are critically to be initiated in the first face.

Online Library Management System is an Automated Library System that handles the various functions of the library. It provides a complete solution to the library management software.

7.References

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