

01.

LMS GROUP-2

Final Report

Contents

1. Title and Team Members
2. Introduction
3. Problem Statement
4. Objective
5. Contribution of the team
6. Screenshots

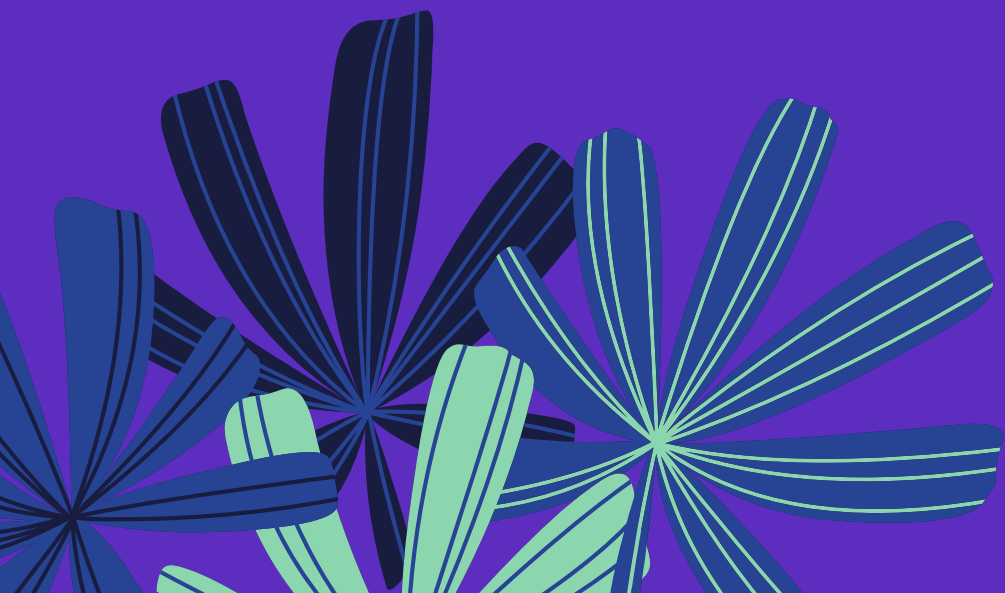


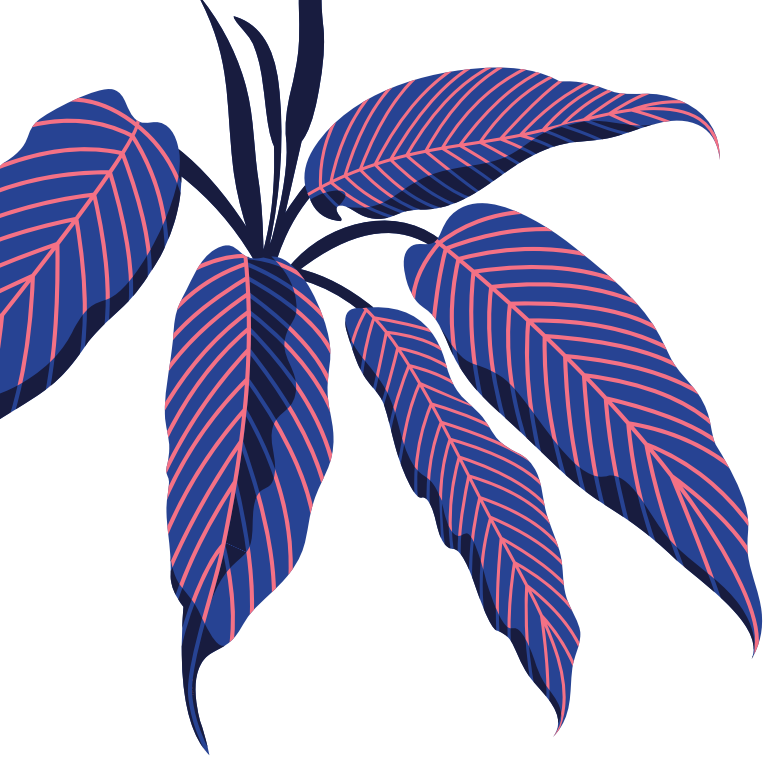
03.

The Library Management System

THE TEAM

1. 19z215 - Gunaal R
2. 19z218 - Johanna Smriti
3. 19z225 - Keerthna M
4. 19z237 - Balasubramanian S
5. 19z246 - Sri Raja Vignesh S
6. 19z259 - Vikneshwar A





Introduction

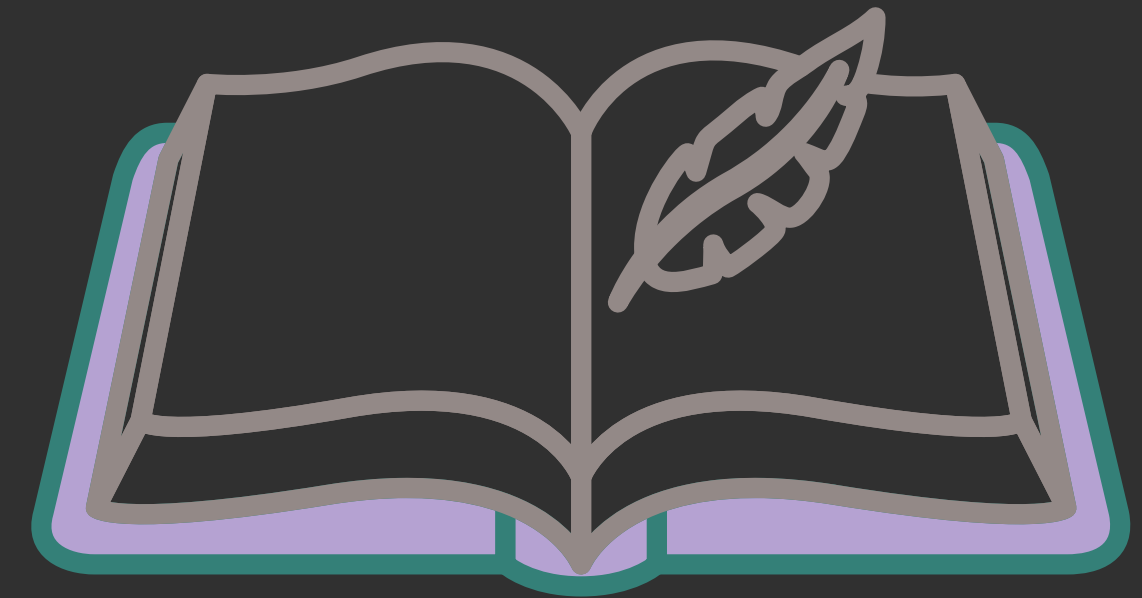
04.

A college library management is a project that manages and stores books information electronically according to students' needs. The system helps both students and library managers to keep a constant track of all the books available in the library.

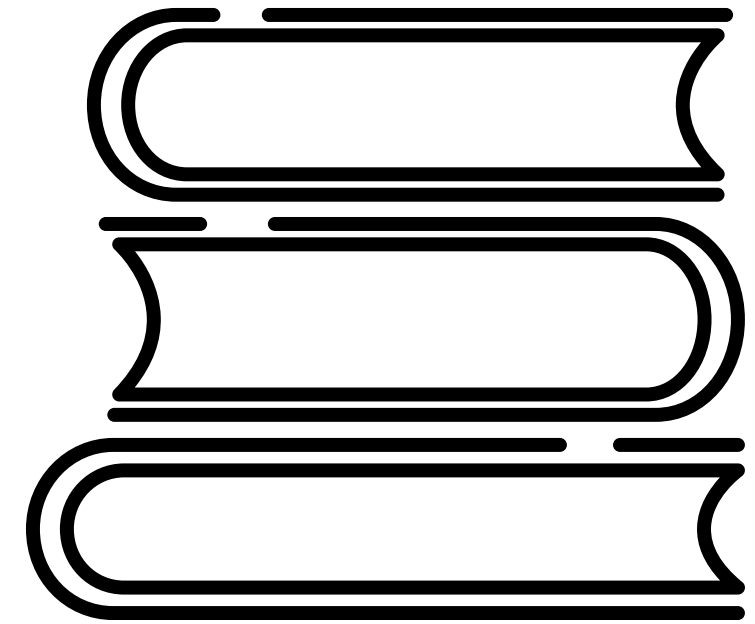
Problem Statement

05.

To update the manual library system into an internet-based application. This application can be used both by the students and the faculty of the Computer Science department of PSG College of Technology.



06. Objective



The application objective is to reduce the manual work of the librarian to a great extent, allowing smooth flow of library activities by removing chances of errors in details

For example,

It becomes necessary for colleges to keep a continuous check on the books issued and returned and even calculate fines. This task if carried out manually will be tedious and includes chances of mistakes. These errors are avoided by allowing the system to calculate fine.

Requirements Gathering

07.

MODULES

Admin Portal

- Dashboard
- borrow portal
- return portal
- view books
 - All books
 - Books issued
 - Books returned

Student Portal

- Login
- Borrow history
- Return history

ADMIN PORTAL

08.

This module contains all the functionalities an admin can perform in the application.
It's further divided into six modules as listed below

Dashboard

This module allows the admin to view,

- 1.number of books in the database
- 2.number of books issued
- 3.number of books not returned past the due date

Also has easy access to the modules borrow and return

ADMIN PORTAL

09.

Borrow

This module allows the Admin to issue a book just by entering, **Student roll number, Book Id**
After pressing **ADD ENTRY**, the admin can view details of the book after which the admin can confirm the entry.

Return

This module allows the Admin to return a book just by entering, **Student roll number**
This will result in displaying the list of books issued by the student.
After which the admin can check for a fine, which is calculated with respect to the due date and return date.
On pressing the button **Return**, the book return process is completed and the same is reflected in the database.

ADMIN PORTAL

10.

VIEW BOOKS

This module allows to user to view the details of the books in three different ways. It also has the functionality of searching a book with respect to,
Book ID, Title, Author name

Books

This module allows the admin to view all the books available in the database.

The details displayed are:
Book ID, Title, Author name

Books issued

This module allows the Admin to view all the books issued currently

The details displayed are:
Book ID, Roll number, Title, Issue date, Due date

Books returned

This module allows the Admin to view all the books returned.

The details displayed are:
Book ID, Roll number, Title, Issue date, Return date, Fine paid

Student portal

11.

This module contains all the functionalities a student can perform in the application.
Its further divided into three modules as listed below

Login

This module allows the student to log in.

The student uses his/her roll number as username and password to login

Borrow history

This module allows the student to view the details of the books they issued currently

The details displayed are:

Book ID, Book Title, Author name, Issue date, Due date

Return history

This module allows the student to view the details of the books they issued currently

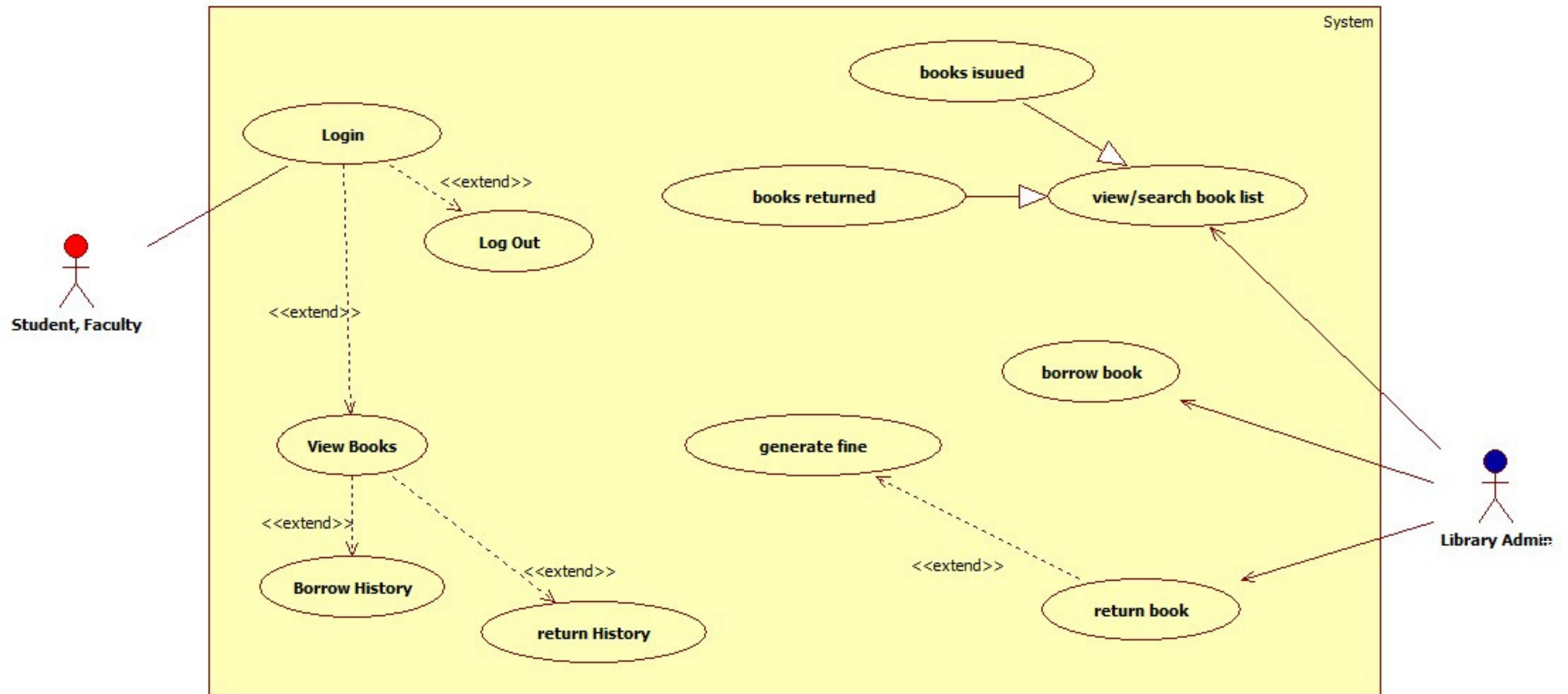
The details displayed are:

Book ID, Book Title, Author name, Issue date, Return date, Fine Paid

Design

12.

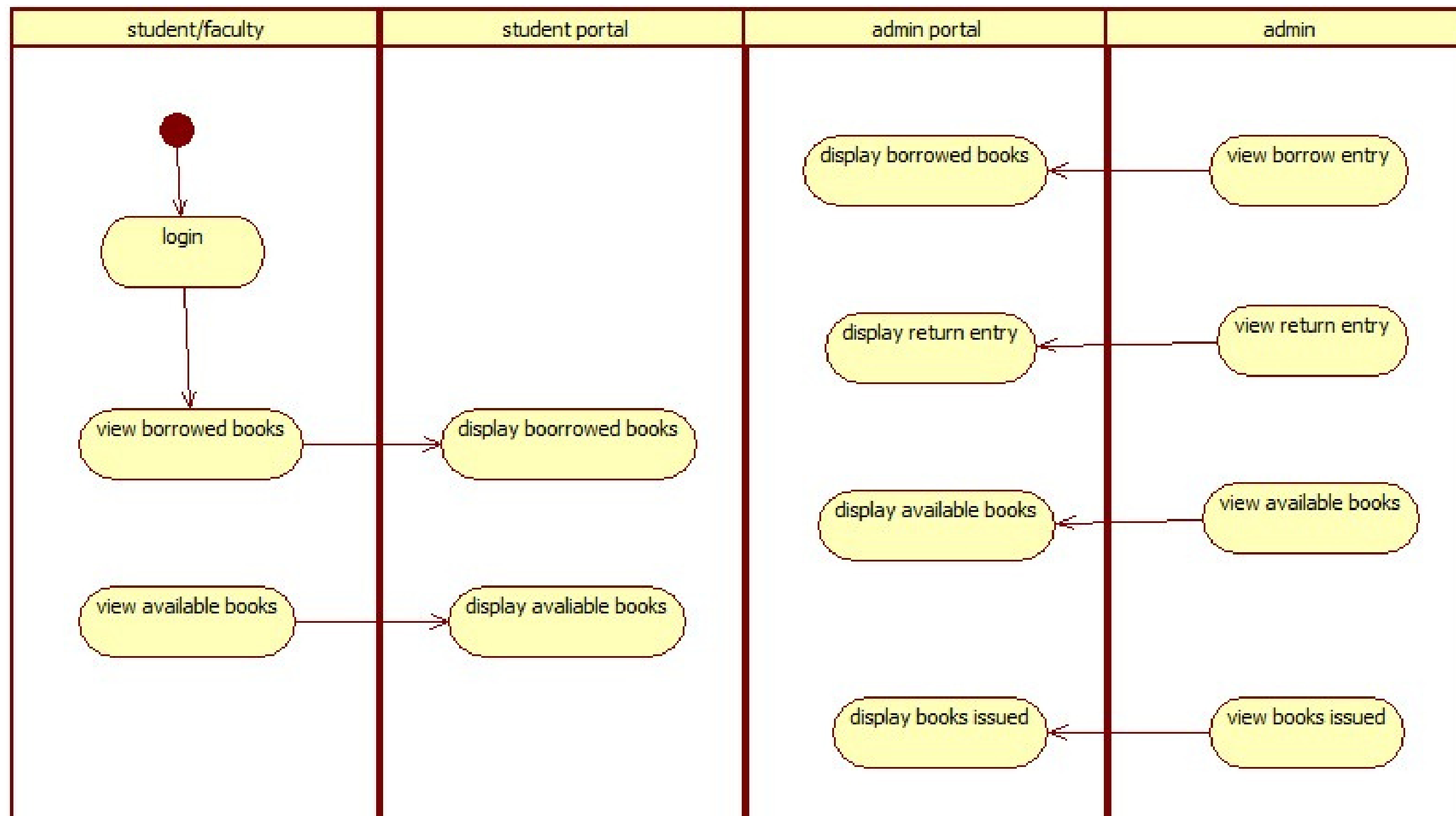
USE CASE



Design

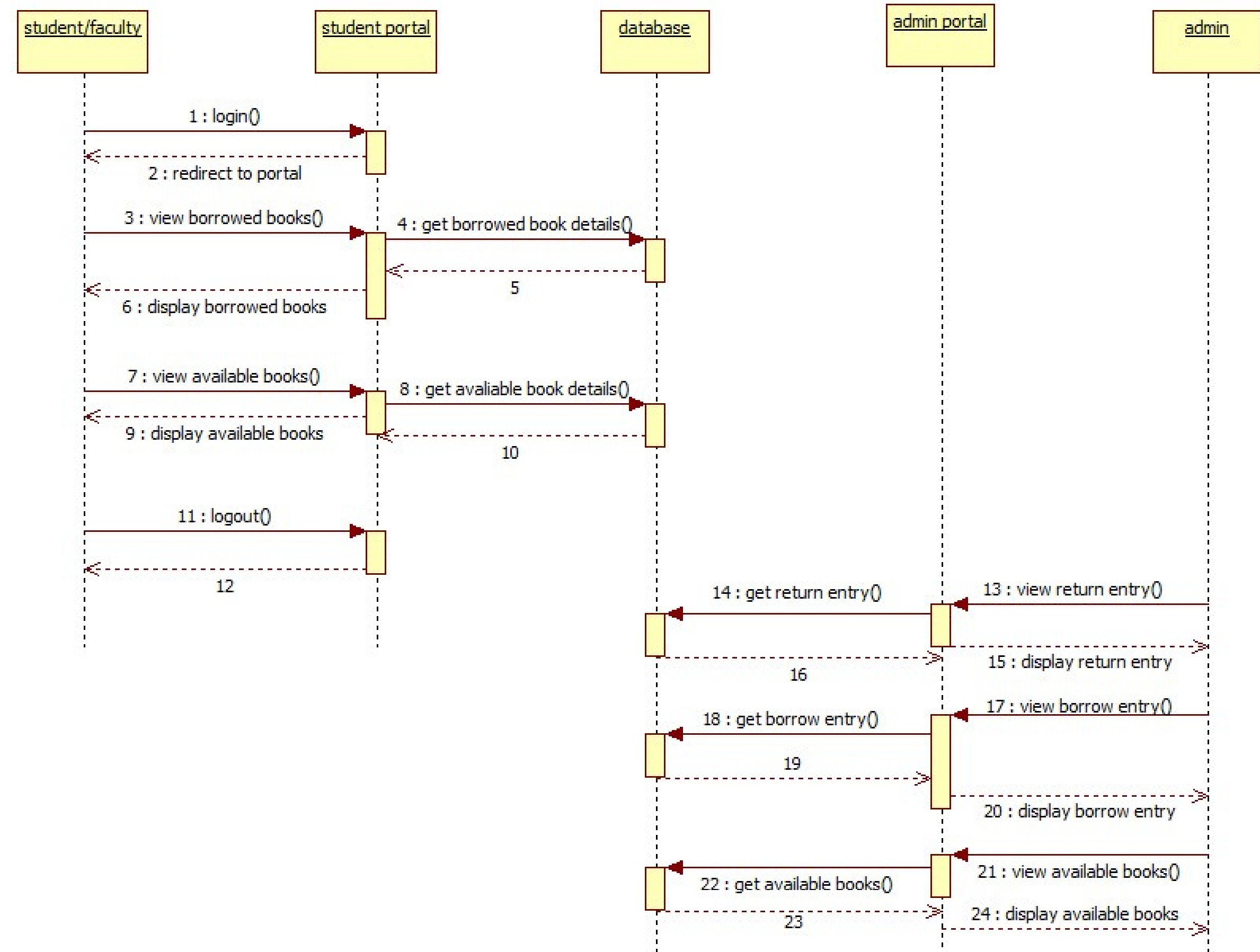
13.

ACTIVITY DIAGRAM



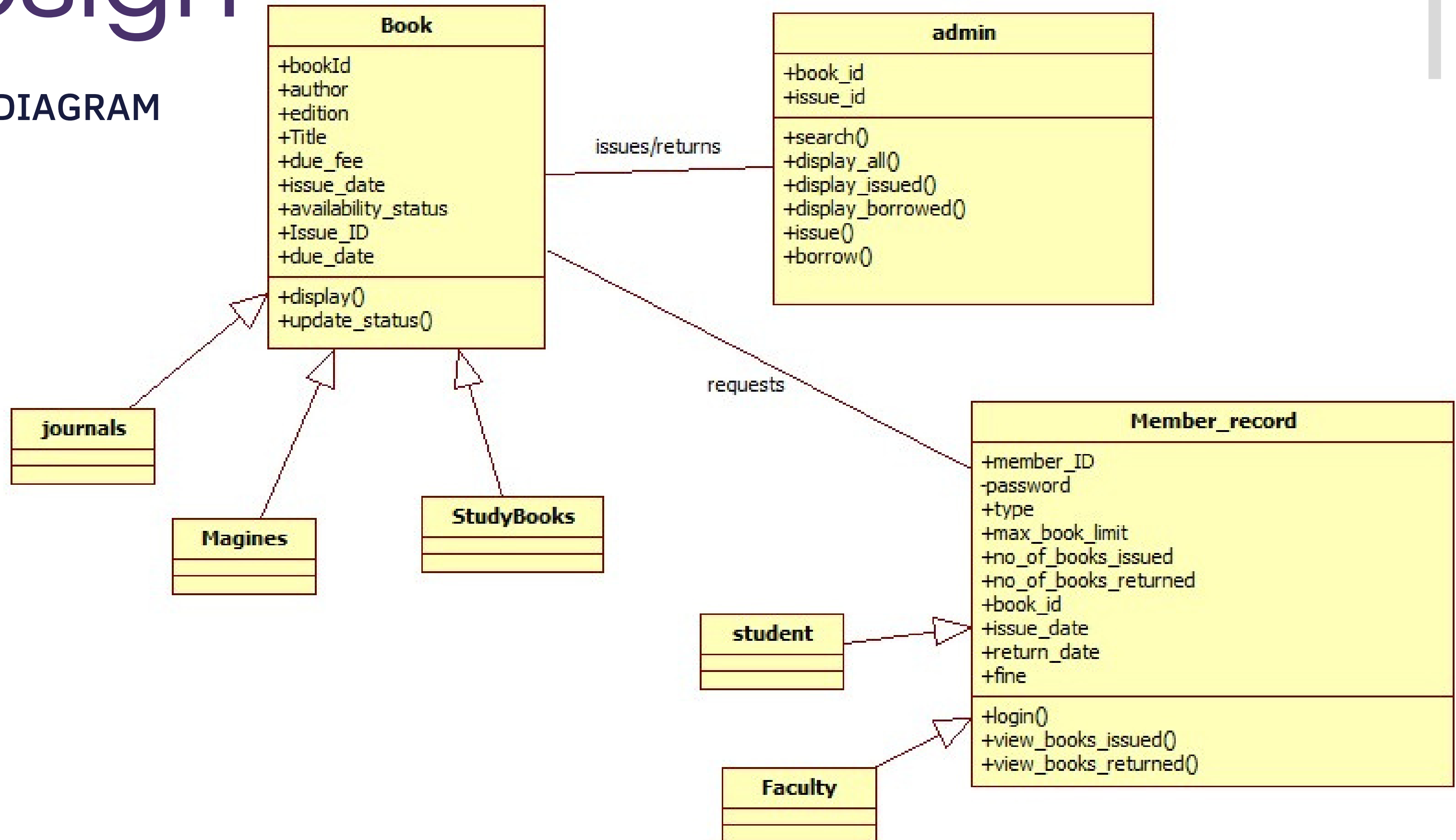
Design

SEQUENCE DIAGRAM



Design

CLASS DIAGRAM



System requirements

16.

Hardware

Processor: Pentium(R)

Dual-core CPU Hard Disk:
40GB

RAM: 256 MB or more

Software

Front-end framework: Flutter

Language: Dart

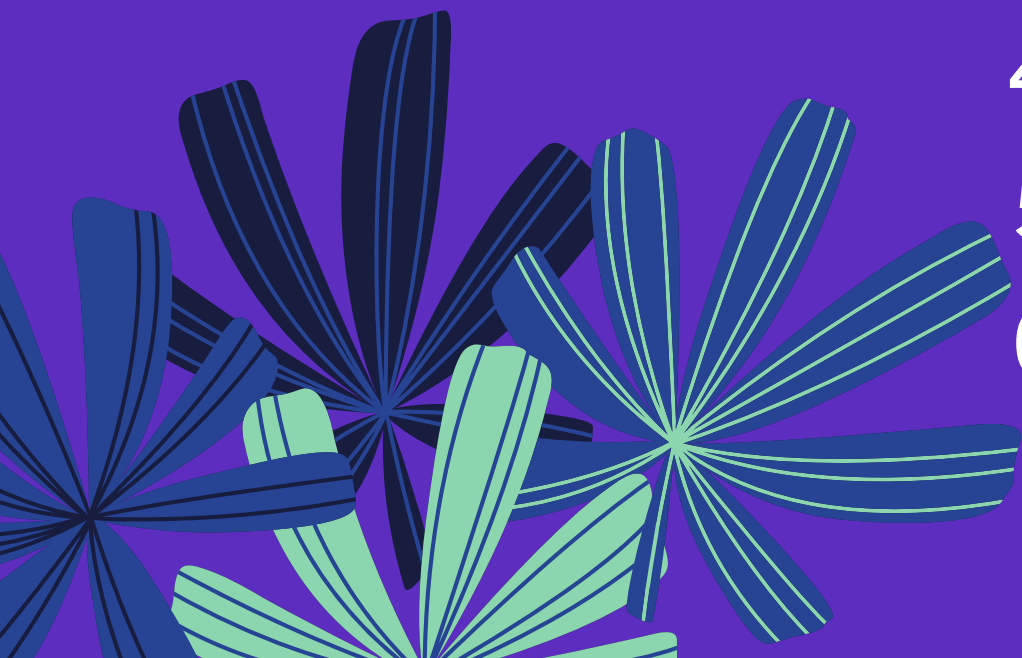
Data processing language:

Python

Database : Firebase

17. Contribution of the TEAM


1. 19z215 - Dashboard in admin portal
2. 19z218 - Log in and Borrow history section in student portal
3. 19z225 - Menu bar and return history section in student portal
4. 19z237 - Borrow and Return section in admin portal
5. 19z246 - Database seeding and in app integration
6. 19z259 - Books, Issued, Return tables in admin portal



ADMIN PORTAL


18.

Dashboard



PSG Tech

- Dashboard
- Books
- Books Issued
- Books Returned
- Borrow
- Return



COMPUTER SCIENCE DEPARTMENT


Library Management System

Borrow

Click here for borrow entry


Return

Click here for return entry




100

BOOKS



4

BOOKS BORROWED




0

RETURNS PAST DUE

ADMIN PORTAL

19.

Borrow



PSG Tech

Dashboard

Books

Books Issued

Books Returned

Borrow


Return

Borrow Form

Enter Roll Number

Enter Book ID Number

Add Entry



Borrow Form

Check and Confirm Book


Title	Content
AUTHOR	M MORRIS MANO
SNO	5
MATL_STATUS	MISSING
VENDORNAME	na
PAGES	-1
PUB_YEAR	2000
TITLE	COMPUTER SYSTEM ARCHITECTURE
MATL_TYPE	BOOK
DEPT_ACCNNO_OLD	B00005
CALL_NO	1.1205
ACCN_DATE	na
MATLGROUP	Lending
SUBJECTNAME	na

Confirm

ADMIN PORTAL

20.

Return



PSG Tech

- Dashboard
- Books
- Books Issued
- Books Returned
- Borrow
- Return**

Return Form

Enter Roll Number

Search for Books Borrowed

Select the Books for Return

COMPUTER SYSTEM ARCHITECTURE ☐

DIGITAL DESIGN ☒

Check For Fine

Book ID	Title	Date Issued	Due Date	Late Fee
3	DIGITAL DESIGN	13/11/2021	3/12/2021	No Due


Total Amount: Rs. 0

Return


ADMIN PORTAL


21.


Books





PSG Tech


 Dashboard

 Books

 Books Issued

 Books Returned

 Borrow

 Return

Sort by

Title

Author

ID

Search

X





Q

ID	Title	Author
1	THE ESSENTIAL CLIENT/SERVER SURVIVAL GUIDE	ROBERT ORFALI, DAN HARKEY, and JERI EDWARDS
2	DATA STRUCTURES USING C AND C++	YEDIDYAH LANGSAM, MOSHE.J.AUGENSTEIN, AARON.M.TENENBAUM
3	DIGITAL DESIGN	M MORRIS MANO
4	THE C ODYSSEY UNIX - THE OPEN, BOUNDLESS C	MEETA GANDHI, TILAK SHETTY, RAJIV SHAH
5	COMPUTER SYSTEM ARCHITECTURE	M MORRIS MANO
6	AN INTRODUCTION TO DISTRIBUTED AND PARALLEL COMPUTING	JOEL M CRICHLLOW
7	TYPE AND LEARN C++ TODAY	MARTIN L RINEHART
8	PC BUYERS SURVIVAL GUIDE	HARALD BABIEL, RAINER BAIBEL
9	DIGITAL ELECTRONICS AND MICROPROCESSORS PROBLEMS AND SOLUTIONS	R P JAIN
10	EASY TO BUILD ELECTRONIC ALARMS	M C SHARMA
11	UNIX NETWORK PROGRAMMING	W RICHARD STEVENS

ADMIN PORTAL

22.


Books Issued


 PSG Tech		Sort by Issue 	<input type="text" value="Search"/>  		
ID	Roll Number	Title	Issue Date	Due Date	
12	19Z246	C++ PROGRAMMING LANGUAGE	2021-10-29 00:57:38.766	2021-11-18 00:57:38.766	
22	19Z289	COMPUTER ORGANISATION	2021-10-29 09:13:24.895	2021-11-18 09:13:24.895	
45	19Z246	CC:MAIL PLAIN AND SIMPLE	2021-10-29 00:51:29.319	2021-11-18 00:51:29.319	
5	19z225	COMPUTER SYSTEM ARCHITECTURE	2021-11-15 06:55:51.022	2021-12-05 06:55:51.022	


ADMIN PORTAL


23.


Books Returned



PSG Tech


 Dashboard


 Books

 Books Issued



 Books Returned

 Borrow

 Return

Sort by Issue 

Search



ID	Roll Number	Title	Issue Date	Due Date	Fine
100	19Z237	COMPUTER GRAPHICS	2021-10-27 19:01:53.511	2021-11-16 19:01:53.511	0
1	19Z237	THE ESSENTIAL CLIENT/SERVER SURVIVAL GUIDE	2021-10-27 14:08:36.380	2021-11-16 14:08:36.380	0
1	19z237	THE ESSENTIAL CLIENT/SERVER SURVIVAL GUIDE	2021-10-27 13:45:05.011	2021-11-16 13:45:05.011	0
12	19Z237	C++ PROGRAMMING LANGUAGE	2021-10-29 00:56:59.373	2021-11-18 00:56:59.373	0
12	19Z246	C++ PROGRAMMING LANGUAGE	2021-10-28 17:54:00.736	2021-11-17 17:54:00.736	0
13	19Z246	AN INTRODUCTION TO DATABASE SYSTEMS	2021-10-28 17:37:52.862	2021-11-17 17:37:52.862	0
20	19Z237	MASTERING DATA MINING	2021-11-01 15:53:06.884	2021-11-21 15:53:06.884	0
23	19Z246	BARRONS GRE	2021-10-29 00:43:29.413	2021-11-18 00:43:29.413	0
25	19Z237	DATA STRUCTURES	2021-09-14 08:35:24.000	2021-10-14 08:35:24.000	90
30	19Z237	GETTING STARTED WITH MATLAB	2021-11-13 22:53:52.055	2021-12-03 22:53:52.055	0
3	19Z237	DIGITAL DESIGN	2021-10-01 16:47:04.000	2021-10-20 16:47:04.000	120

Student portal

24.

Login

Student Portal

Login.

College ID


Password

✓ Submit

Student portal

25.

Borrow History



PSG Tech

My Borrow History

My Return History

Logout

Search


Sort by ID

ID	Title	Author	Borrow Date	Return Date
45	CC:MAIL PLAIN AND SIMPLE	CINDY RENNIE	29/10/2021	18/11/2021
12	C++ PROGRAMMING LANGUAGE	BJARNE STROUSTRUP	29/10/2021	18/11/2021


Student portal


26.


Return History



PSG Tech

 My Borrow History


 My Return History

 Logout

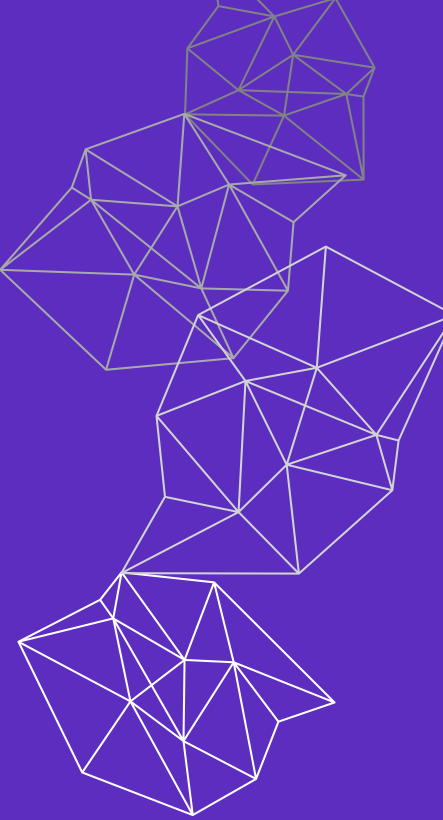
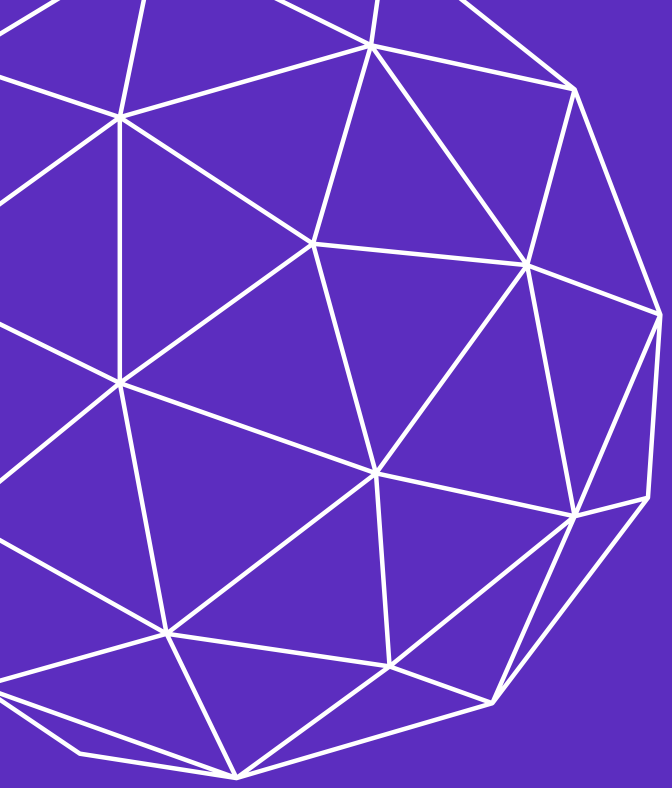
Search

Q

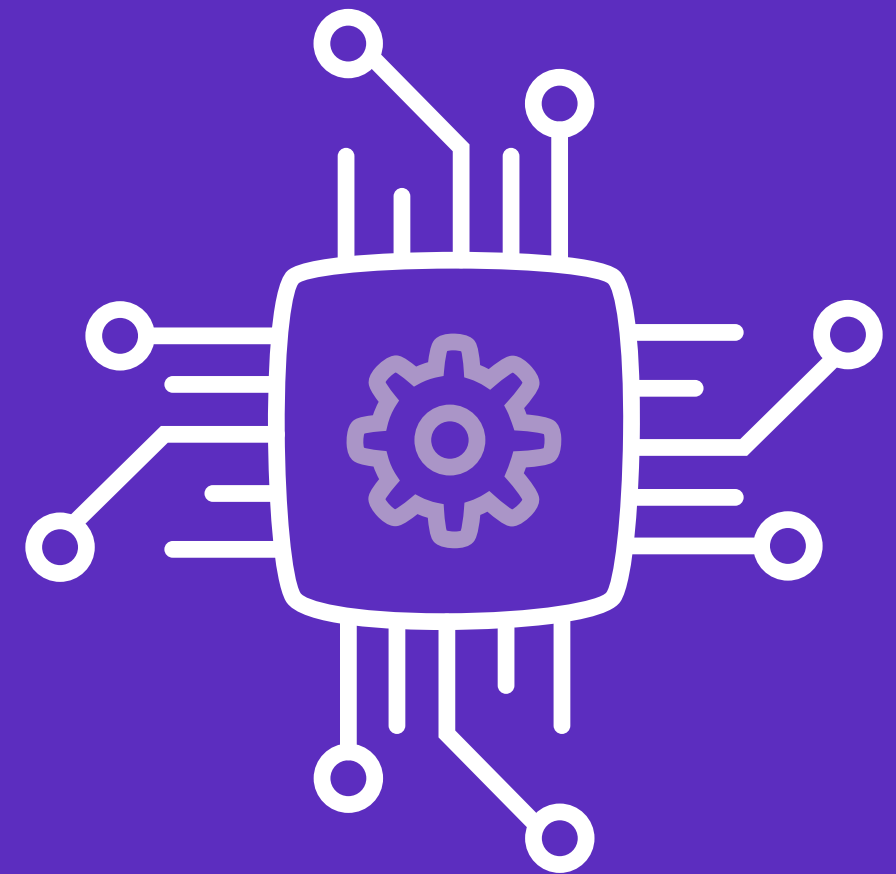
Sort by ID



ID	Title	Author	Borrow Date	Return Date	Fine Paid
100	COMPUTER GRAPHICS	ISRD GROUP	27/10/2021	16/11/2021	Rs. 0
98	DATA COMMUNICATION AND COMPUTER NETWORKS	ISRD GROUP	28/10/2021	17/11/2021	Rs. 0
50	FUNDAMENTALS OF DIGITAL IMAGE PROCESSING	ANIL K JAIN	29/10/2021	18/11/2021	Rs. 0
45	CC:MAIL PLAIN AND SIMPLE	CINDY RENNIE	28/10/2021	17/11/2021	Rs. 0
30	GETTING STARTED WITH MATLAB	RUDRA PRATAP	13/11/2021	3/12/2021	Rs. 0
27	DATABASE SYSTEM CONCEPTS	HENRY F KORTH, ABRAHAM SILBERSCHATZ	14/11/2021	4/12/2021	Rs. 0
25	DATA STRUCTURES	A CHITRA P T RAJAN	14/9/2021	14/10/2021	Rs. 90
20	MASTERING DATA MINING	MICHAEL J A BERRY, GORDON S LINOFF	1/11/2021	21/11/2021	Rs. 0
20	MASTERING DATA MINING	MICHAEL J A BERRY, GORDON S LINOFF	14/10/2021	2/11/2021	Rs. 60
12	C++ PROGRAMMING LANGUAGE	BJARNE STROUSTRUP	29/10/2021	18/11/2021	Rs. 0
3	DIGITAL DESIGN	M MORRIS MANO	1/10/2021	20/10/2021	Rs. 120
1	THE ESSENTIAL CLIENT/SERVER SURVIVAL GUIDE	ROBERT ORFALI, DAN HARKEY, and JERI EDWARDS	27/10/2021	16/11/2021	Rs. 0



Thank You



27.