LIBRARY MANAGEMENT SYSTEM

Group 1 (5394.251)

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Introduction

A library management is an application that manages and stores books information electronically according to user's needs. The system helps both users and library manager to keep a constant track of all the books available in the library. It allows both the admin and the student to search for the desired book. It becomes necessary for all libraries to keep a continuous check on the books issued and returned. This task if carried out manually will be tedious and includes chances of mistakes. These errors are avoided by allowing the system to keep track of information such as issue date, last date to return the book and thus there is no need to keep manual track of this information which thereby avoids chances of mistakes.

This is a console-based application that provides an environment for library management. This application will allow the admin to create the user profile and will provide the login console for the user to login into the application. The users will be able to check-in and check-out the books from the library.
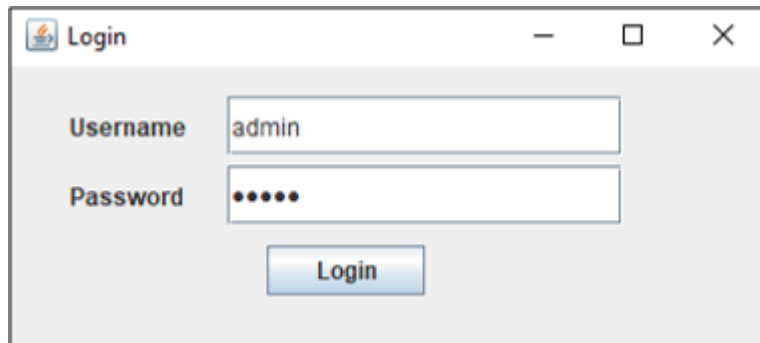
In user module, user can login into the application and can access the entire functionality if the user registered by the admin.

In administrator module, admin has the capability to add the new users into the application or to remove the existing user from the application.
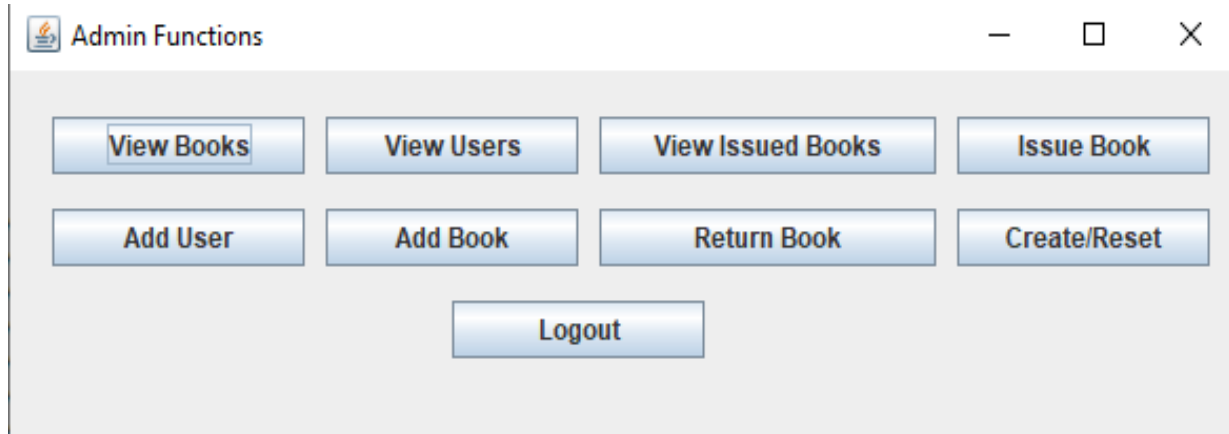
Acceptance Testcases

Login

The login frame has functionality where the user or admin can logon into the system by entering their login credentials. So, initially, when a user logs in for the first time, that user will be an admin by default, and the username and password will {admin, admin}. For this schema, we would like to consider only one admin. So, once a user logs in as an admin, he or she will be redirected to the admin menu.

Admin Module

Admin menu is designed to show the details of users, books, issued books, and books, return books, add users, and create or reset the database.

View Books

Once we click on view books button in the admin menu, it will display all books present in the database, with their details.
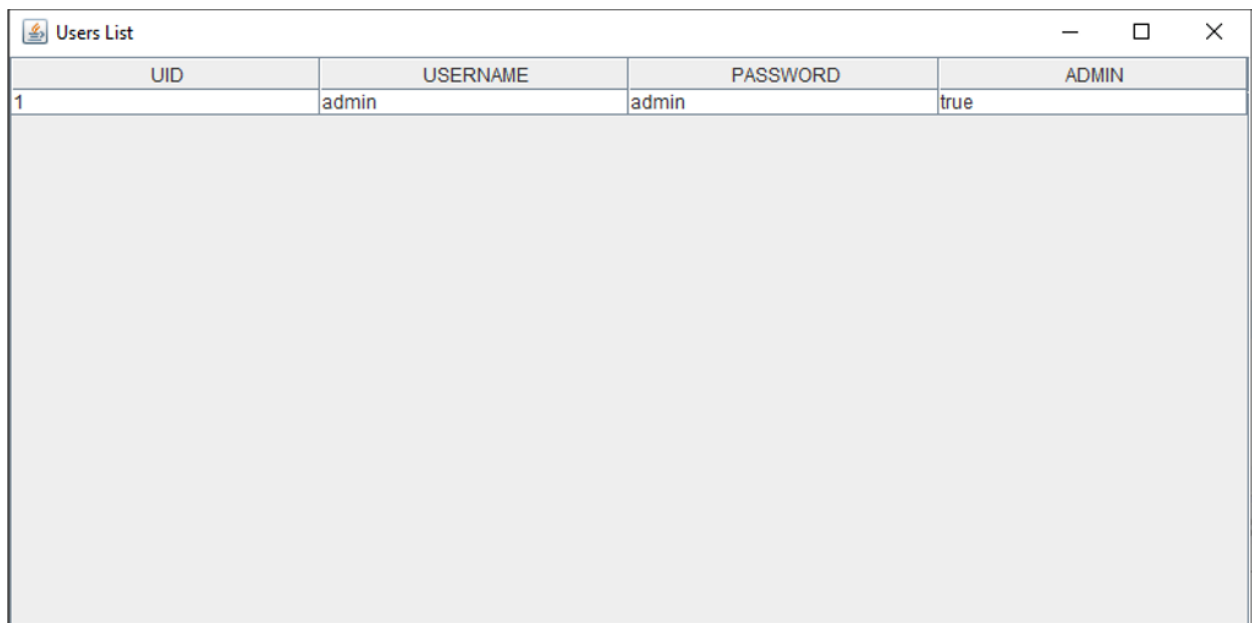
BID	BNAME	GENRE	PRICE
1	War and Peace	Mystery	200
2	The Guest Book	Fiction	300
3	The Perfect Murder	Mystery	150
4	Accidental Presidents	Biography	250
5	The Wicked King	Fiction	350

Books Available

View Users

The View Users button is used to view the current users on the system. Since we just have only one user present i.e the admin, it will show you output as below:

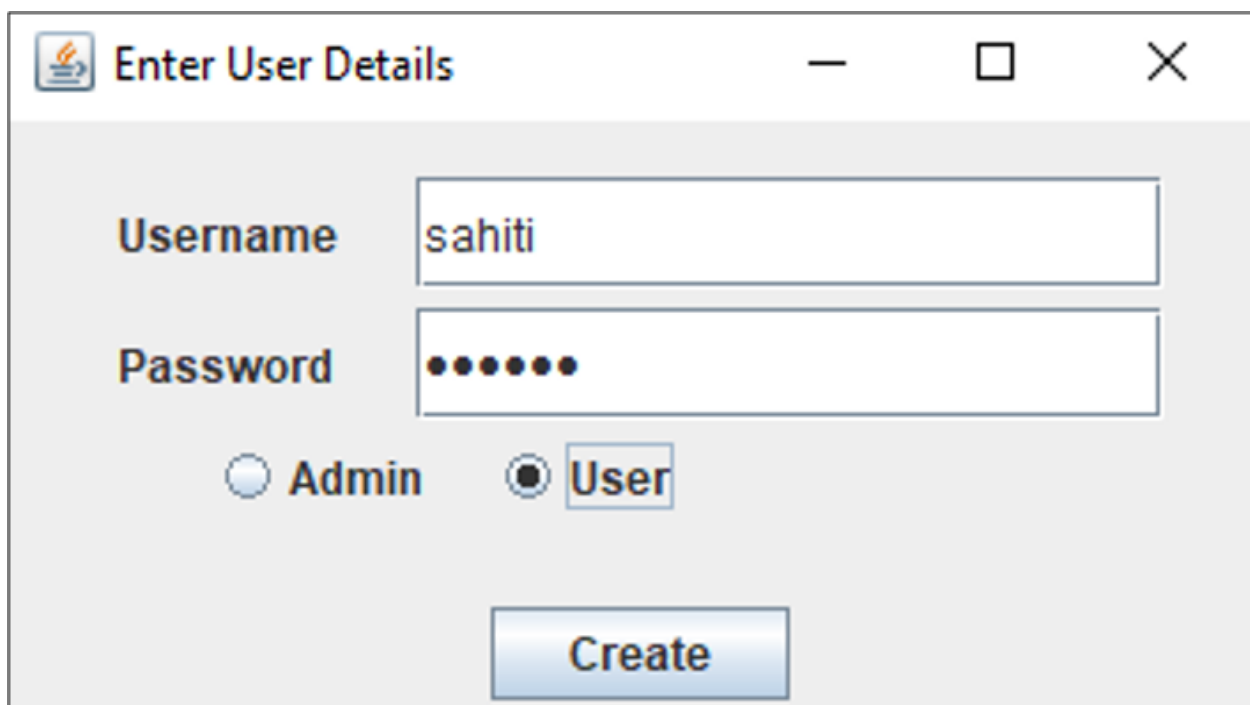| UID	USERNAME	PASSWORD	ADMIN
1	admin	admin	true

Users List

Create/Reset

This functionality is used to create or reset a database. So, once you click on the button Create/Rest, you will see the below output:
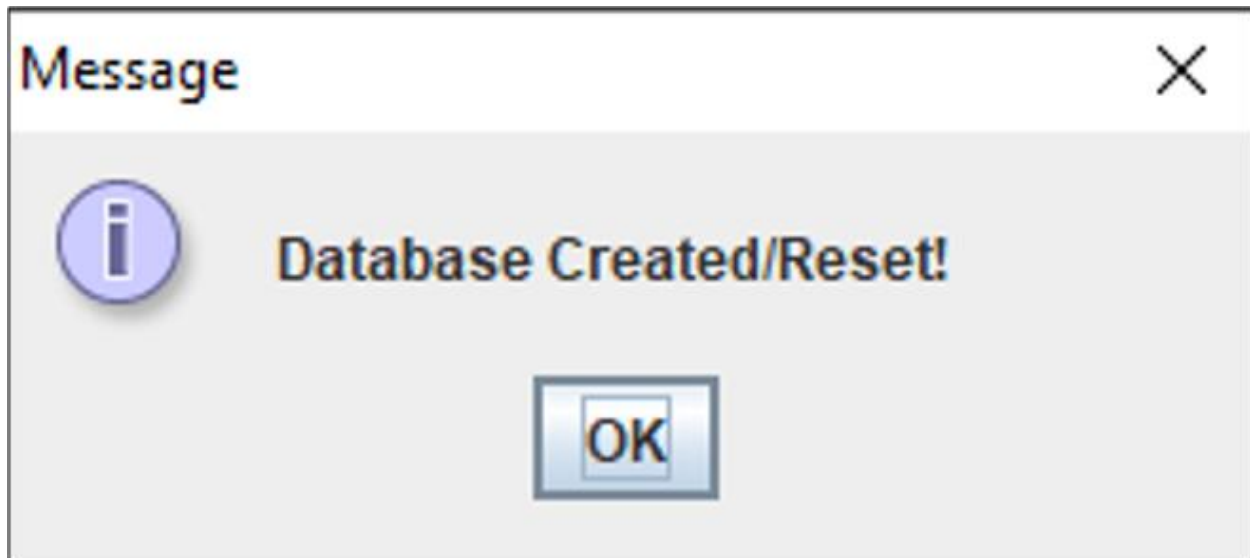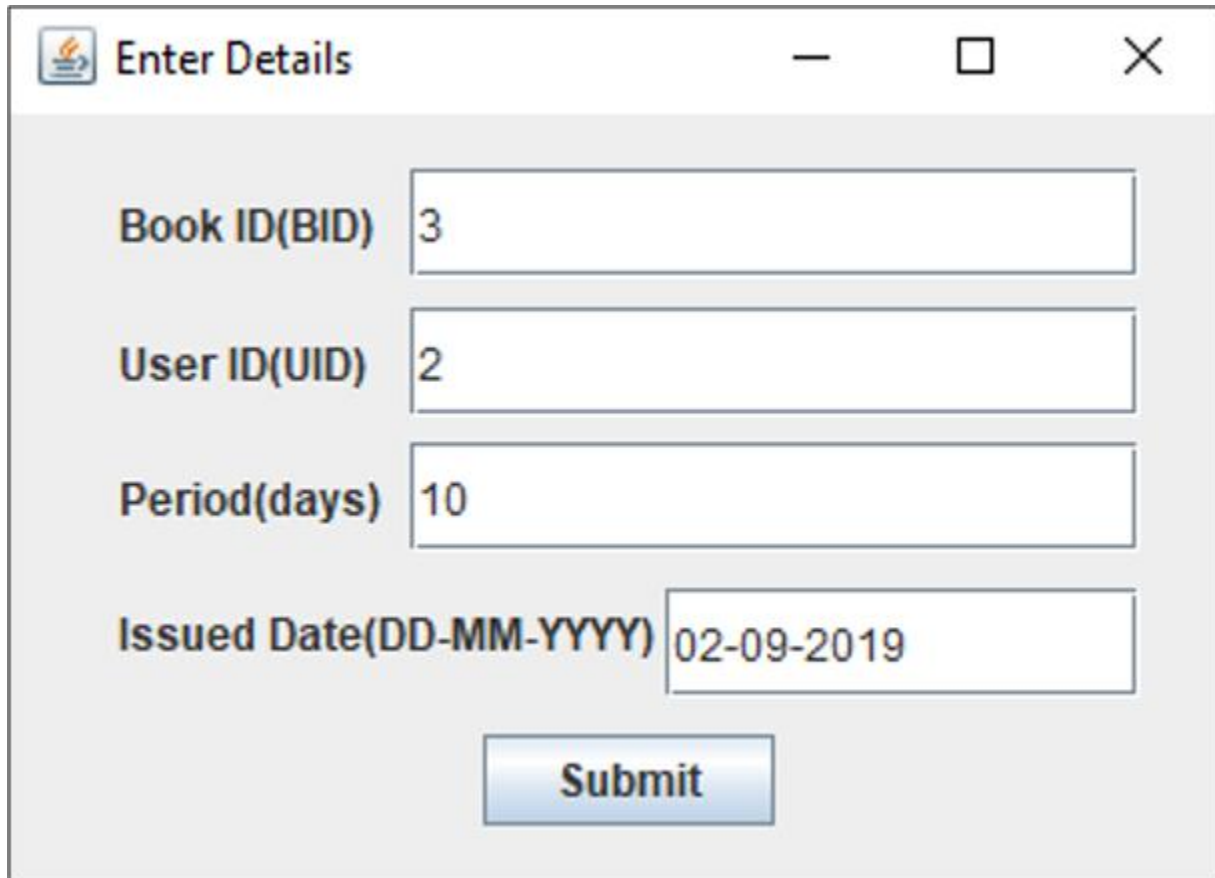

Add User

To add a user, click on the option "Add User" and mention details such as username, password and choose the radio button user or admin. By default, it will be the user. Then, click on Create.
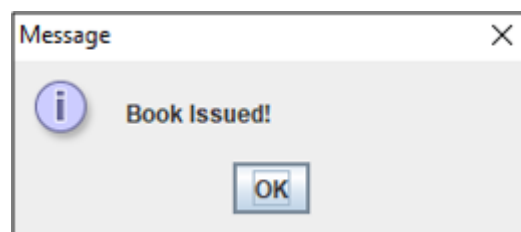
Issue Book

Suppose, if you are the user, once you click on the Issue Book button, you have to mention the Book ID, User ID, Period(Number of days for issuing the book), and the Issue Date as follows:

Then click on Submit. Once, you click on Submit, you will see the below dialog box:

View Issued Books

Once you click on this button, you will see the following output:

IID	UID	BID	ISSUED_DATE	RETURN_DATE	PERIOD	FINE
1	2	3	02-09-2019		10	

Add Book

Click on the Add Book button, and mention the book name, genre and price. Then, click on the Submit button. Refer below.
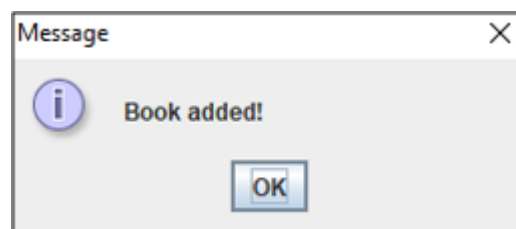
Enter Book Details

Book Name Murder on the Orient Express
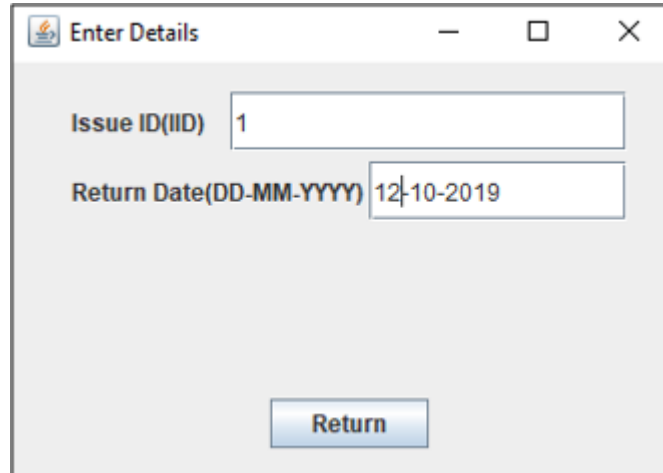
Genre Thriller

Price 1000

Submit

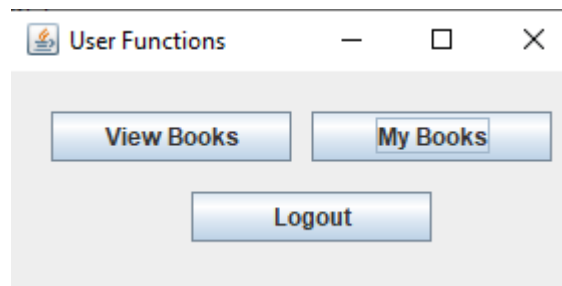You will see a dialog box displaying the below message:

Message

(i) **Book added!**

OK

Return Book

Once, you click on the Return Book, mention the Issue ID and the return date as below. Then click on Return.

User Module

If the user logs in to the system, using the login function, then the user will see the below User Menu.

User Books

Here, the user can view all the books in the database by using the View Books option and the books issued by the user in the My Books section as below:

My Books

IID	UID	BID	ISSUED_D...	RETURN_D...	PERIOD	FINE	bname	genre	price
4	3	4	08-09-2022		23		Accidental ...	Biography	250