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Programme	:	**B.Tech**	Semester	:	**WS 2020-2021**
Course	:	**DataBase Management Systems - Embedded Lab**	Code	:	**CSE2004**
Faculty	:	**Mr. Sivabalakrishnan M.**	Slot	:	**D2**

Group: 13

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Review-3 J component Report

Library Management System 

(A project report submitted to
In partial fulfilment of the requirements for the course of
CSE – 2004 DATABASE AND MANAGEMENT SYSTEMS)

BONAFIDE CERTIFICATE

Certified that this project report entitled "Library Management System" is a bonafide work of **Shatakshi Shree 20BAI1314, Anant Tater 20BAI1127** and **Baraniraj G 20BAI1172** who carried out the Project work under my supervision and guidance for CSE – 2004 DATABASE AND MANAGEMENT SYSTEMS.

Mr. Sivabalakrishnan M. Sir

Objectives and goals:

Library Management System is a term for computer-based system that manages the catalogue of a library. The main purpose of this system is to manage library daily operation efficiently.

a) To build a system that can receive input and generate automatically output in easy way and short time.

b) To build a monitoring system that is able to monitor and manage all library operations efficiently.

c) Give an opportunity to librarians to reduce mistakes that always happen during manual method.

d) To store properly the library items in order to maintain their security.

e) To enter and preserve details of the various issues and keep a track on their returns.

Scope of the project:

Libraries are the storehouse of knowledge and information, library science is very closely related to management science, information technology and the field of education. They perform various tasks like collecting books, arranging them systematically, conservation and preservation of those books, dissemination of information sources etc. But these tasks are way too hard to conduct properly without the help of computerized systems since we have a lot of data which can't be compromised upon and to make a book available to the reader as per his requirement is the most important aspect of this system.

Problems being solved:

1. *Books can be added.*
2. *They can be issued.*
3. *Submission of books.*
4. *Delete specific book.*
5. *Display them.*

Product Functions:

We need a system or software which provides good graphical interface for the user any administrator can operate on the system, performing the required task such as create, update, viewing the details of the book, also allows user to view quick reports like book issues/returned etc. in between particular time. Stock verification in different criteria or according to different categories. Search facility based on different criteria in depth.

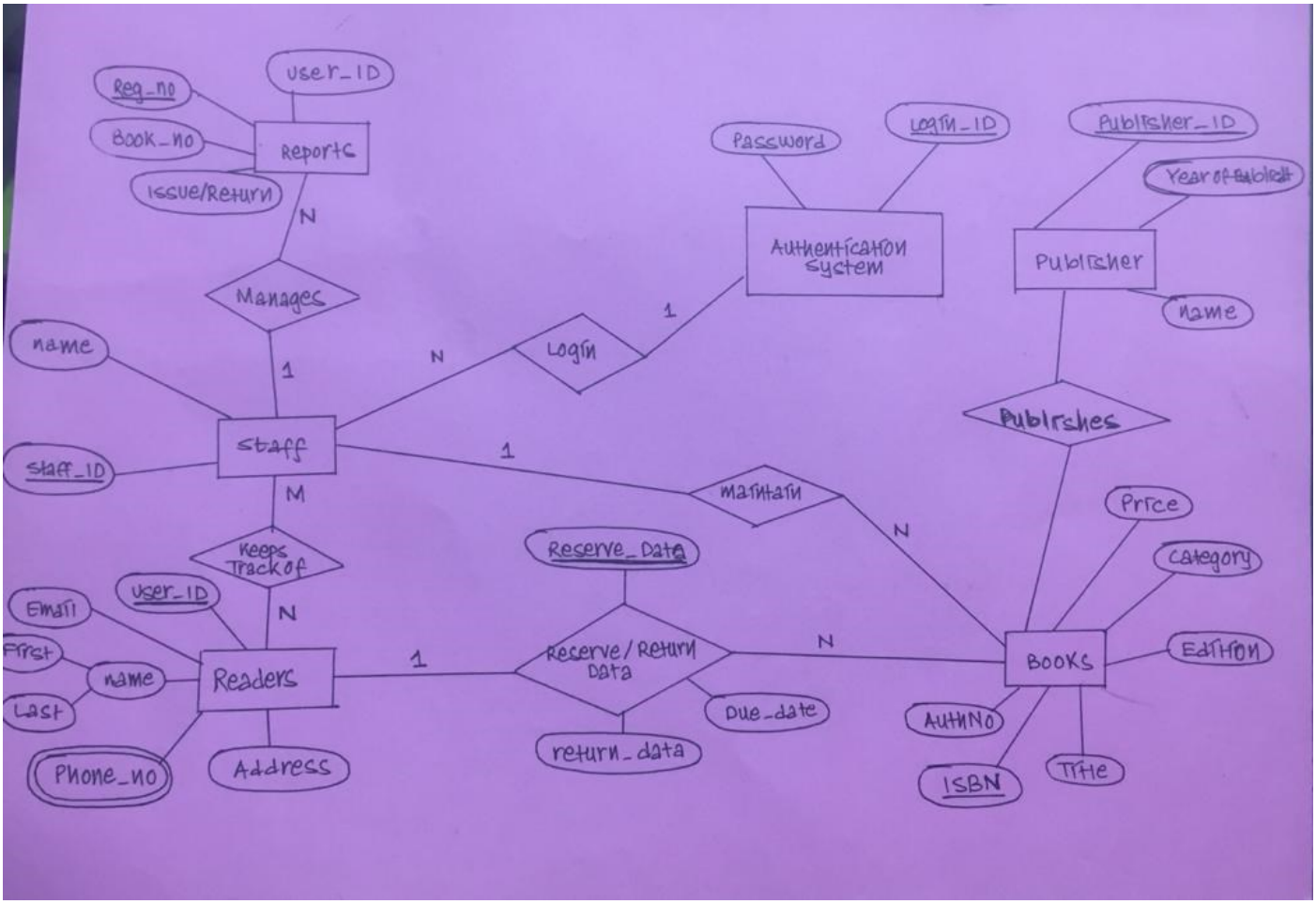
Software Specifications:

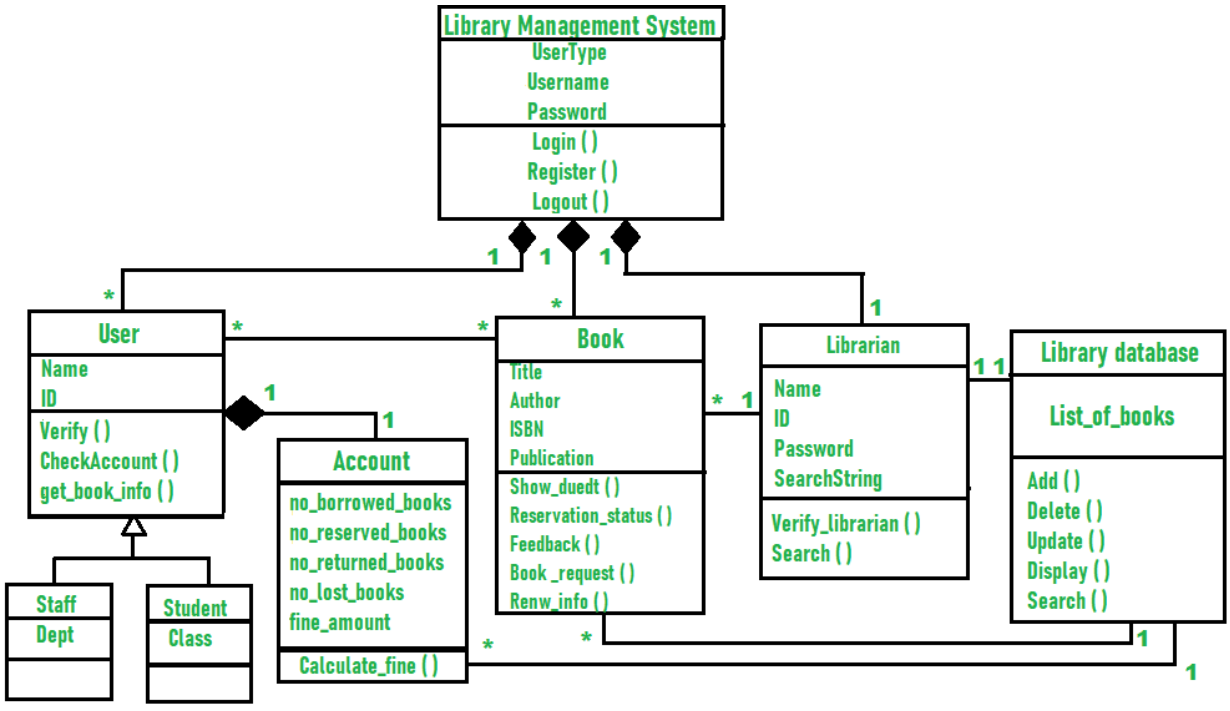
1. MySQL
2. Python

Managerial Policies:

The library management system we built works only after we put the correct password to let you in. We tend to choose a task we want to perform which can be no.1: add book, no.2: issue book, no.3: submit book, no.4: delete book or no.5: display books. Depending upon the task assigned to it, the system asks you certain questions directed for the action you want it to perform. For example if you choose task-1 to add a book then it might ask you the book details to update its database. Similarly for displaying books we choose task 5 and then answer its questions to go through the book we searching.

E R Diagram:

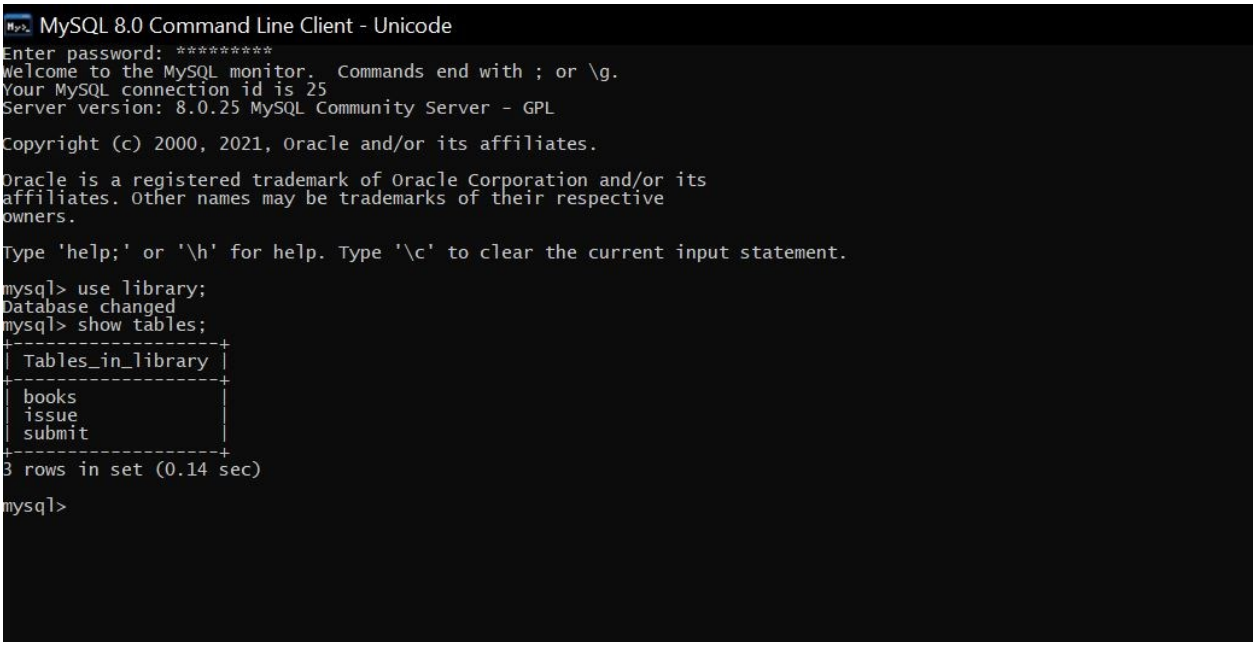


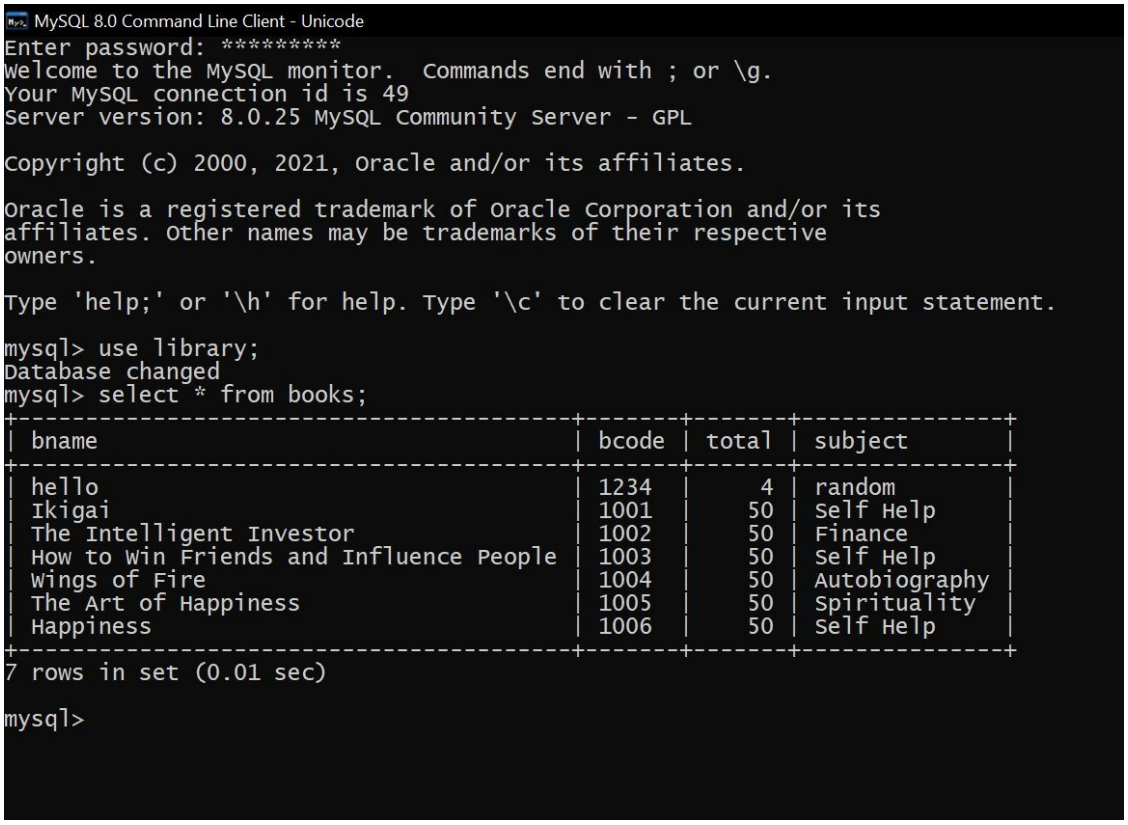


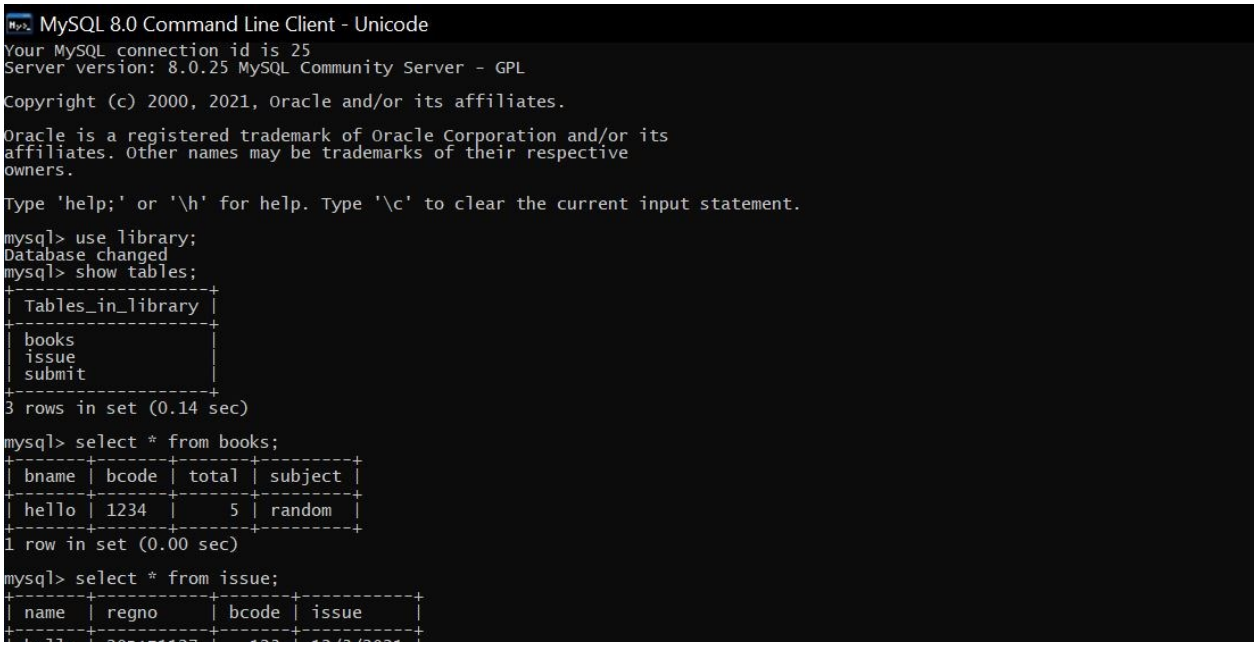
CLASS DIAGRAM FOR LIBRARY MANAGEMENT SYSTEM

Database - Table Description:

In this we first make the tables and then put in the book details according to availability in our library.






MySQL 8.0 Command Line Client - Unicode
Your MySQL connection id is 25
Server version: 8.0.25 MySQL Community Server - GPL
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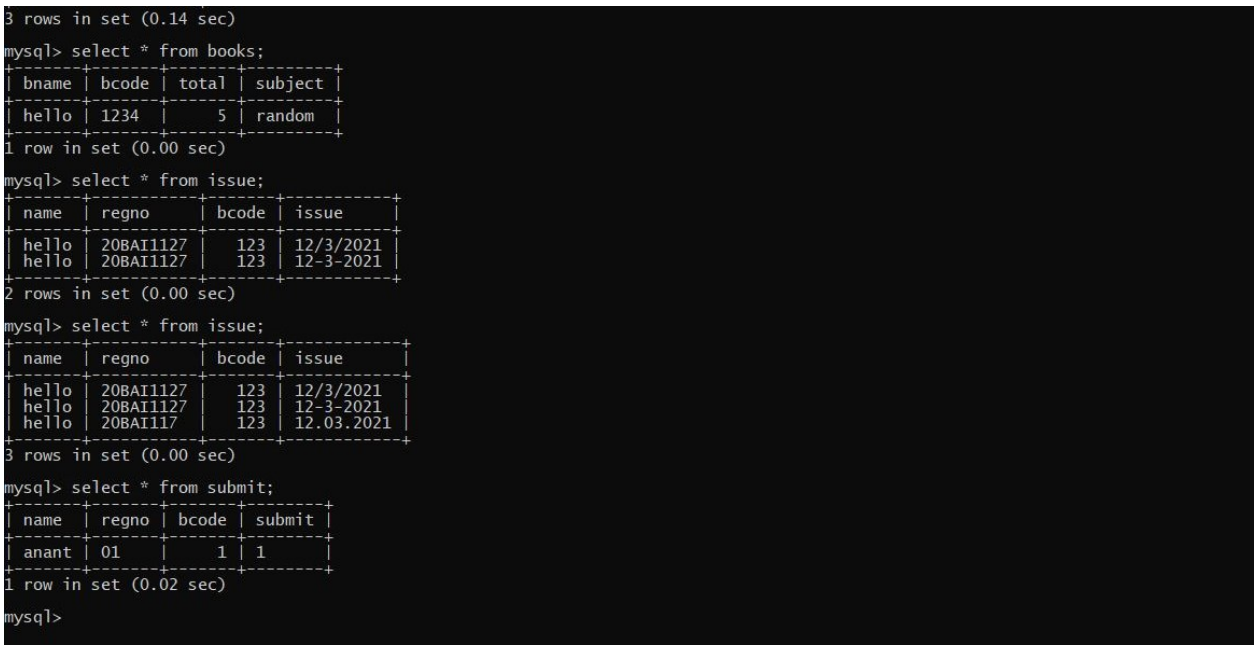
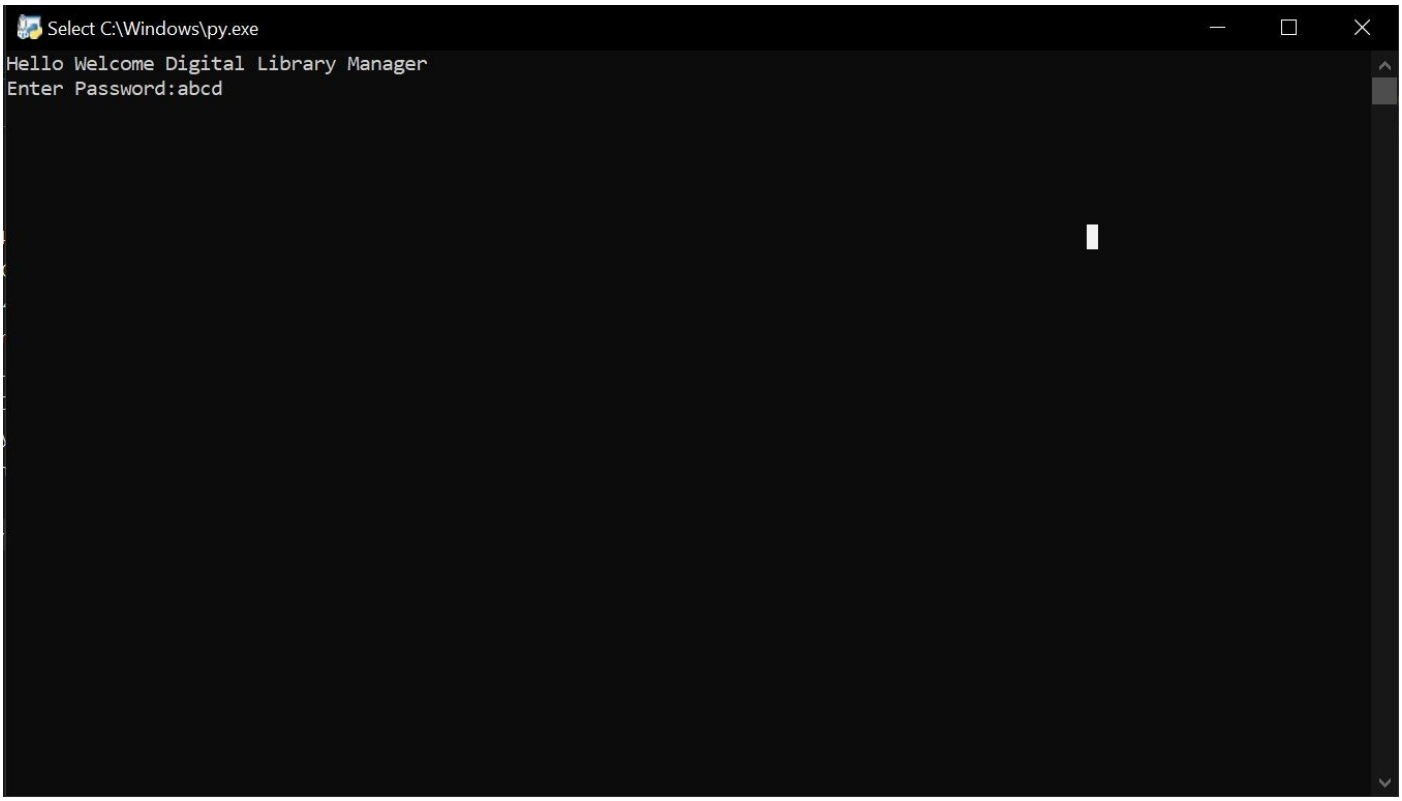
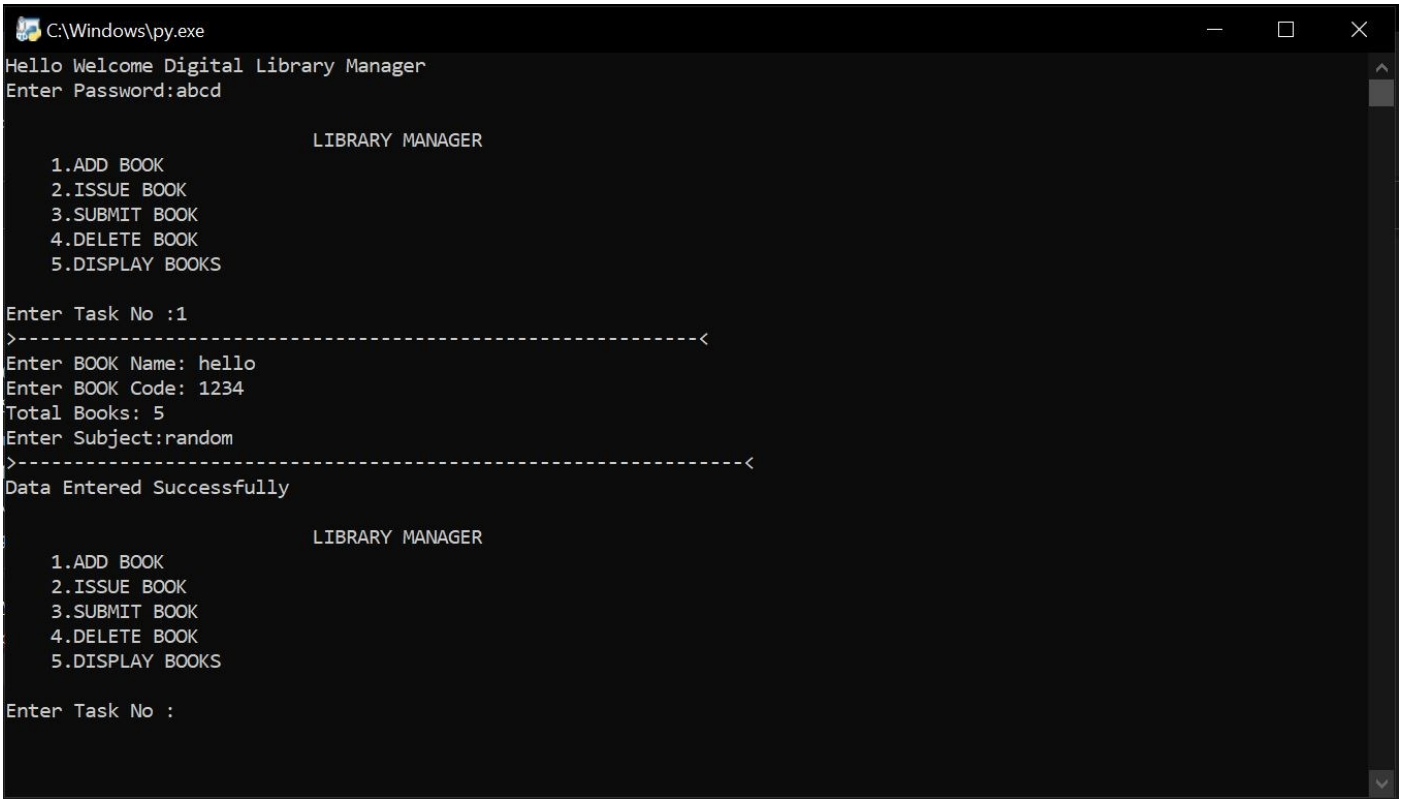
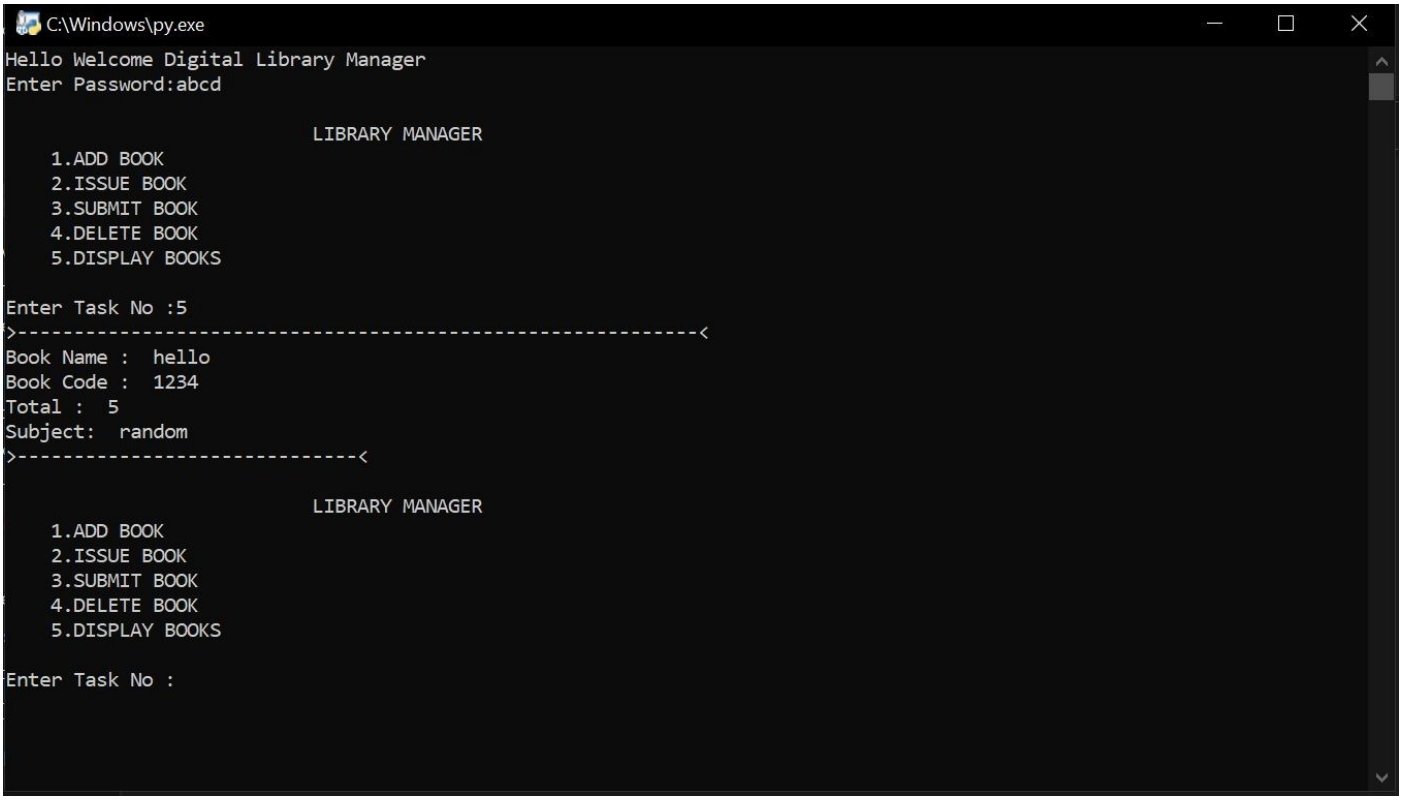
owners.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
mysql> use library;
Database changed
mysql> show tables;
| Tables_in_library |
| books |
| issue |
| submit |
3 rows in set (0.14 sec)
mysql> select * from books;
| bname | bcode | total | subject |
| hello | 1234 | 5 | random |
1 row in set (0.00 sec)
mysql> select * from issue;
| name | regno | bcode | issue |


3 rows in set (0.14 sec)
mysql> select * from books;
| bname | bcode | total | subject |
| hello | 1234 | 5 | random |
1 row in set (0.00 sec)
mysql> select * from issue;
name	regno	bcode	issue
hello	20BAI1127	123	12/3/2021
hello	20BAI1127	123	12-3-2021
2 rows in set (0.00 sec)
mysql> select * from issue;
name	regno	bcode	issue
hello	20BAI1127	123	12/3/2021
hello	20BAI1127	123	12-3-2021
hello	20BAI117	123	12.03.2021
3 rows in set (0.00 sec)
mysql> select * from submit;
name	regno	bcode	submit
anant	01	1	1
1 row in set (0.02 sec)
mysql>

Interface:


Select C:\Windows\py.exe
Hello Welcome Digital Library Manager
Enter Password:abcd


C:\Windows\py.exe
Hello Welcome Digital Library Manager
Enter Password:abcd
LIBRARY MANAGER
1.ADD BOOK
2.ISSUE BOOK
3.SUBMIT BOOK
4.DELETE BOOK
5.DISPLAY BOOKS
Enter Task No :1
>----------<
Enter BOOK Name: hello
Enter BOOK Code: 1234
Total Books: 5
Enter Subject:random
>----------<
Data Entered Successfully
LIBRARY MANAGER
1.ADD BOOK
2.ISSUE BOOK
3.SUBMIT BOOK
4.DELETE BOOK
5.DISPLAY BOOKS
Enter Task No :


C:\Windows\py.exe
Hello Welcome Digital Library Manager
Enter Password:abcd
LIBRARY MANAGER
1.ADD BOOK
2.ISSUE BOOK
3.SUBMIT BOOK
4.DELETE BOOK
5.DISPLAY BOOKS
Enter Task No :5
>--<
Book Name : hello
Book Code : 1234
Total : 5
Subject: random
>-----------------------------<
LIBRARY MANAGER
1.ADD BOOK
2.ISSUE BOOK
3.SUBMIT BOOK
4.DELETE BOOK
5.DISPLAY BOOKS
Enter Task No :

Methodology:

To develop the Library Management System Software, There we are decided the three Different layers-Presentation Layer, Logical Layer and Database Layer. In Presentation Layer to design the interface of the software. In Logical Layer to decide and write the program for to performing the library task execution under the decide module. In Database layer to analysis and design the database of the Module.

Summary and Conclusion:

On the whole our main job is to use the database in proper manner and manipulate it according to our needs. We exploit the software to get what we want and make our work easier. This application involves almost all the features of library management. The future implementation will be helpful for the students and chatting with website administrator. This being developed using python and mysql as database in back end to computerize the process of online management of books, issued and returned books.