Library Management System

Problem Statement

Library Management System: Develop application Library Management System in java. Implements the Classes and Objects, Collection Classes, Exception handling, Design Principles, Databases and Multithreading in Java.

Hardware and Software Requirement

1. Hardware Requirement:

    a. Developer PC with 8GB RAM

2. Software Requirement

    a. Java 8
    b. Ide: Eclipse Eclipse IDE for Enterprise Java Developers / Intelli

Core Module includes:

1. Implement classes and objects for a given application scenario.
2. Use appropriate classes using collections to handle group of business objects.
3. Use python new features to strengthen business logic of your application.
4. Implement exception handling to increase reliability of an application.
5. Use Functions and Functional Programming
6. Implementing perform Unit testing with Python

Develop the application using following steps:

1. Develop Library management system with the Functions and Functional Programming, Python's decorators, Classes and Object-orientation programming, collections, exception handling, model database transactions, Unit testing with Python concepts.

2.Define appropriate classes and objects for a given scenario

3.Implement appropriate type of inheritance and polymorphism for a given scenario

4.Use OOP language specific features - package, static.

5.Use collections for a given scenario

6. Use exception handling for a given application scenario

7.Below are the project files you will get once you download and extract the Library project:

- main.py – which does function call to all other python files
- AddBook.py – To add the book
- ViewBooks.py – To View the list of books in the library
- DeleteBook.py – To Delete a book from library
- IssueBook.py – To Issue a book from library
- ReturnBook.py – To Return a book to the library

8. Create tables Books, issued_books

9. Connecting to the MySql server

Sample Output:


```
MySQL 8.0 Command Line Client                                    —    □    ✕

mysql> desc books_issued;
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| bid       | varchar(20) | NO   | PRI | NULL    |       |
| issuedto  | varchar(30) | YES  |     | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
2 rows in set (0.00 sec)

mysql>
```



```
****Welcome to Simple Library Management System****

 MAIN MENU
=====================
[1] Add a new Book
[2]List all books
[3] Search for book
[4] Edit a book
[5]Delete a book
[0] Exit
=====================
Enter the choice:  5
```