Library Management System Project Report, Documentations, Coding, Abstract, PDF, Diagram and PPT

Hi there **Itsourcecoders**! This time I will discuss to you what is a Library management System and how will you make a project and abstract out of it. The discussion not only explains or reports **library management** but also the **system project** PDF and what should it consist. As you read through this, you will find the Library Management System project abstract and Modules, downloadable Thesis Documentation, free Source codes for all programming languages and the downloadable diagrams such as PDF and PPT.

What is the Abstract of Library Management System Project Report?

The abstract of a school **library management system** is one that organizes and saves books' information electronically to meet the needs of students. Both students and library managers benefit from the system, which allows them to keep track of all of the books available in the library at all times. It allows both the administrator and the student to look for the book they want. Colleges must now keep a constant eye on the books they issue and return, as well as the transaction records. If this operation is completed manually, it will be time consuming and prone to errors.

Enabling the system to maintain track of information including the date or borrowing, the date or book return, and even detailed book information eliminates the manual recording of these information and most importantly it reduced the risk of errors.
As a result, this method greatly lowers manual effort and allows for a seamless flow of library activities by eliminating the possibility of errors in the details.

Here are the List of Modules that the Library Management System should have:

- **Book Information Recording**: All the information of each books should be recorded into the system to provide the borrowers or the students the book references that they want to borrow.
- **Administrator Login**: The admin login will require the school librarian their email and password to have the main access to the system and secure every information ang transaction done in the system.
- **Users/Borrowers' Login**: This will also require the users or students email and password provided when they were registered into the system. Their email and password will serve as their access to the system in terms of borrowing books or inquiring for books.
- **Book Monitoring and Updates**: The system should save the borrowers info and the count of books that are borrowed. These records should also be updatable when the books are returned.

- **View and Check Information**: The admin can view and check the books that are borrowed and who were the students that borrowed them. Students can also view their borrowing transactions just like the book information, date of book borrowing and returning.
- **Borrowing Information**: The borrowing information should consist the important details of the borrowers and the books borrowed by each borrowers. This information should also record the day of borrowing as well as the returning of the book.
- **Borrowing Records:** This will record all the transaction made and are stored for a period of time to serve as reference for important matters.

These modules must be present in creating the Library Management system Project to satisfy the needs in managing Library transactions. Through this, the borrowing and returning of books would be much easier for both students and librarians.

Important Diagrams for Library Management System Project Report

Time needed: 10 minutes.

Here are the essential Diagrams for Library Management System Project Report and PDF of Thesis Documentation.
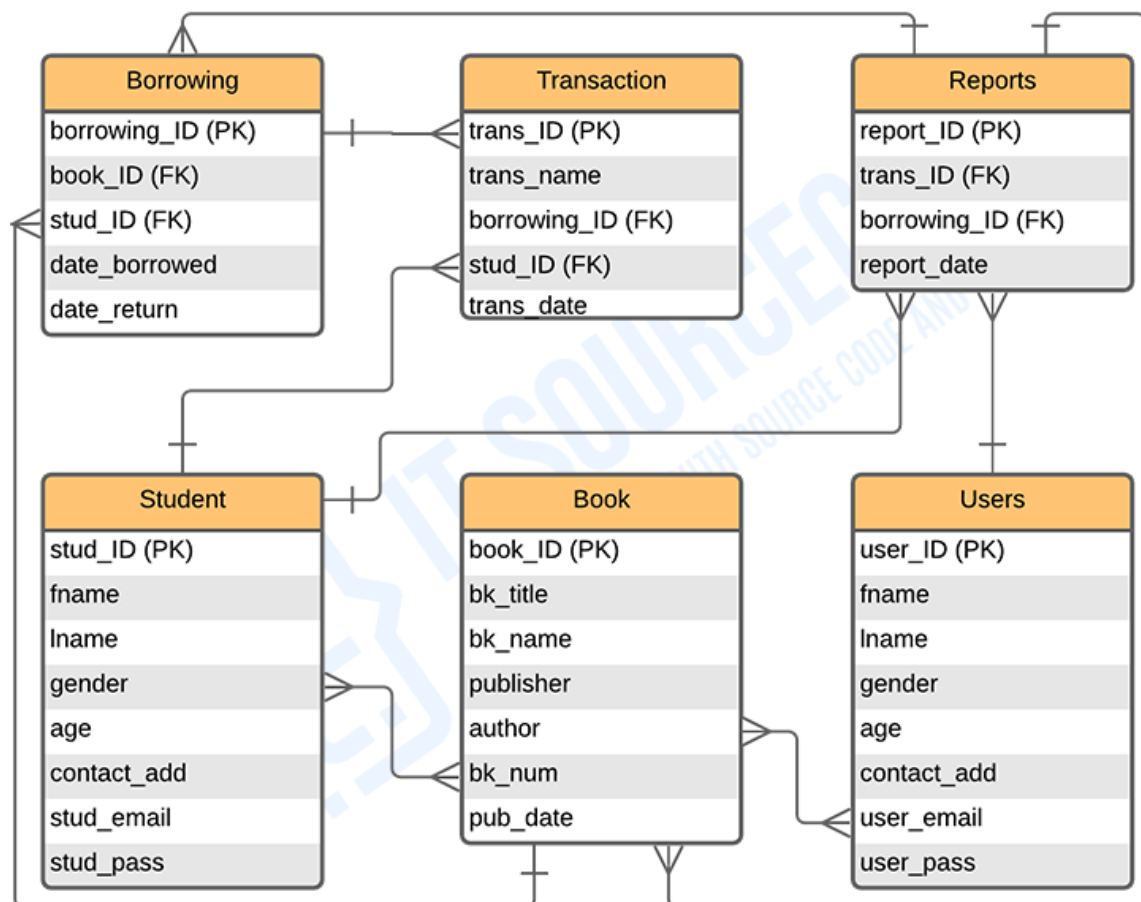
1. **Library Management System ER Diagram**

   This **college library management system database** design was made based on managing library requirements. The system can encode students or borrowers' information. College admin can have access to the students' status and information for borrowing transaction. They can handle the data needed in managing books files as well as the transactions made by their borrowers.

   The features included in the system ER diagram were the security and monitoring of the book and borrowers' records, transactions and status. These features were also listed and recorded in reports that served as the history of transactions done in the system.

   Sample ER Diagram for College Library Management System Project Report

COLLEGE LIBRARY MANAGEMENT SYSTEM

Borrowing
- borrowing_ID (PK)
- book_ID (FK)
- stud_ID (FK)
- date_borrowed
- date_return

Transaction
- trans_ID (PK)
- trans_name
- borrowing_ID (FK)
- stud_ID (FK)
- trans_date

Reports
- report_ID (PK)
- trans_ID (FK)
- borrowing_ID (FK)
- report_date

Student
- stud_ID (PK)
- fname
- lname
- gender
- age
- contact_add
- stud_email
- stud_pass

Book
- book_ID (PK)
- bk_title
- bk_name
- publisher
- author
- bk_num
- pub_date

Users
- user_ID (PK)
- fname
- lname
- gender
- age
- contact_add
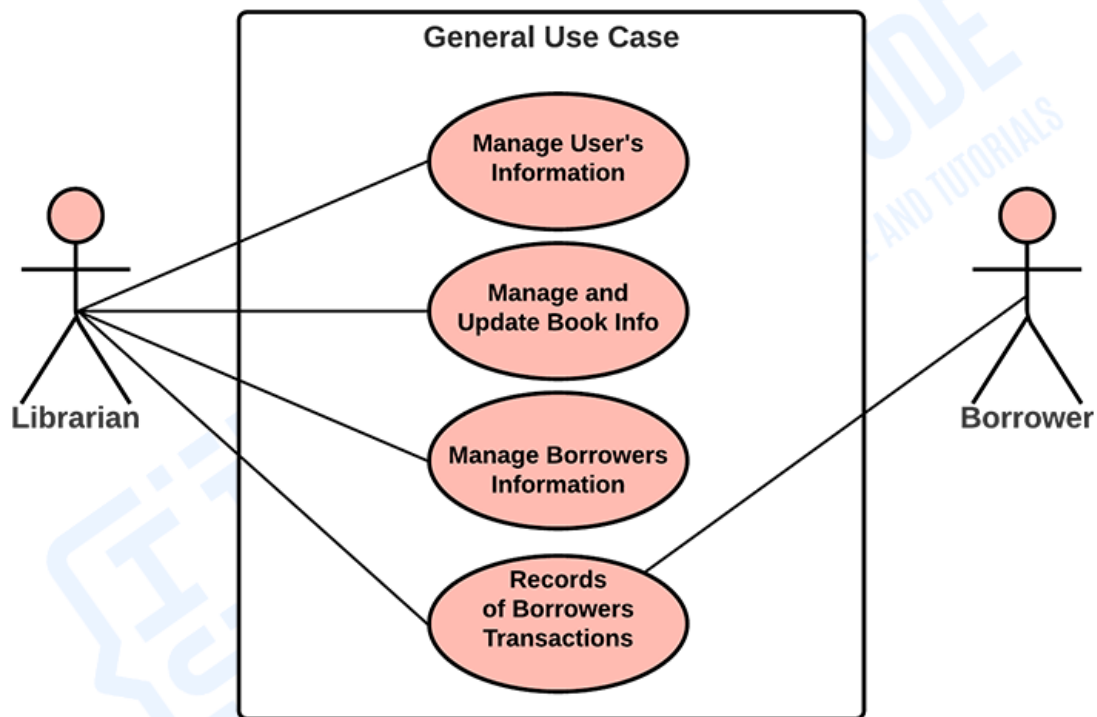- user_email
- user_pass

ENTITY RELATIONSHIP DIAGRAM

Library Management System Use Case Diagram UML

A use case diagram is a visual representation of how a user might interact with a program. A use case diagram depicts the system's numerous use cases and different sorts of users, and is frequently supplemented by other diagrams. Circles or ellipses are used to depict the use cases.

This discusses the meaning of the library management system project UML as well as its use case diagram using include and extend.

By creating the use case of the library management system, you must determine first the possible features to identify the flow of the system. After that you can now create the blueprint or core of the system function.

USE CASE DIAGRAM

This knowledge will also give you deep understanding about **Library management system DFD levels 0, 1 and 2**. I will teach you also the terms in managing the **Library transactions** as well as the flow of activities happens in library management system.

The Data Flow Diagram (DFD) represents the flow of data and the transformations in Library management system. These transformations occurs as data enters and exits a system. In the DFD, input, processing, and output are used to represent and define the overall system.