

# **CSA4002 - MANAGEMENT INFORMATION SYSTEMS FOR GREEN ENERGY**

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10) Draw a use case diagram for Library Management System is an automation system used to manage a library and the different resource management required in it like cataloguing of books, allowing check out and return of books, invoicing, user management, etc. The user can search for books details using few book properties (Book ID, Title, Author, and Publisher). Searching should return details about all the book copies that match the search query.

## **AIM**

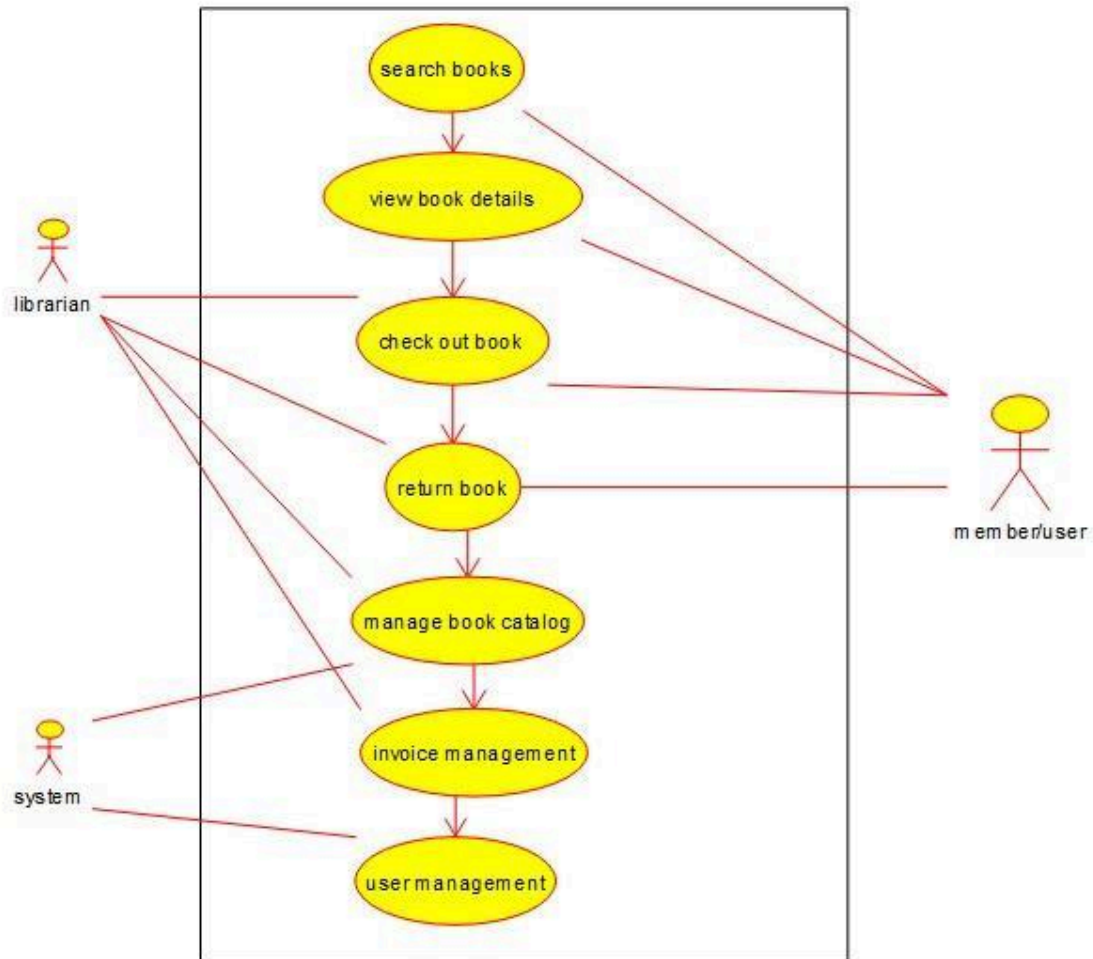
To design a UML **Use Case Diagram** for a **Library Management System**, which automates various resource management tasks such as cataloging books, book check-out and return, invoicing, and user management.

## **PROCEDURE**

1. Identify system actors such as Librarian and User.
2. Define key use cases like Search Books, Issue Books, Return Books, Manage Users, Manage Inventory, and Generate Invoices.
3. Establish relationships between actors and use cases.
4. Use extends and includes relationships where necessary (e.g., Searching extends Catalog Management).
5. Draw the Use Case Diagram to illustrate user interactions with the system.
6. Ensure clarity and correctness using UML notations.

## OUTPUT:

### 1. USE CASE DIAGRAM:



## RESULT

The Use Case Diagram for the Library Management System was successfully designed, covering all necessary user interactions, processes, and system functions. This provides a structured representation of the system for implementation.