1. Use Case Diagram:

Admin Student

1. Class Diagram:

Library Management System

Username

Password

Login()

Register()

Logout()

Library database

List\_of\_books

Add()

Delete()

Update()

Display()

Search()

Librarian

Name

Id

Password

Search

Verify\_librarian()

Search()

Book

Title

Author

Publication

Show\_status()

Reservation\_status()

Book\_request()

User

Name

Id

Verify()

Check Account()

Get\_book\_info()

vv

staff

student

Account

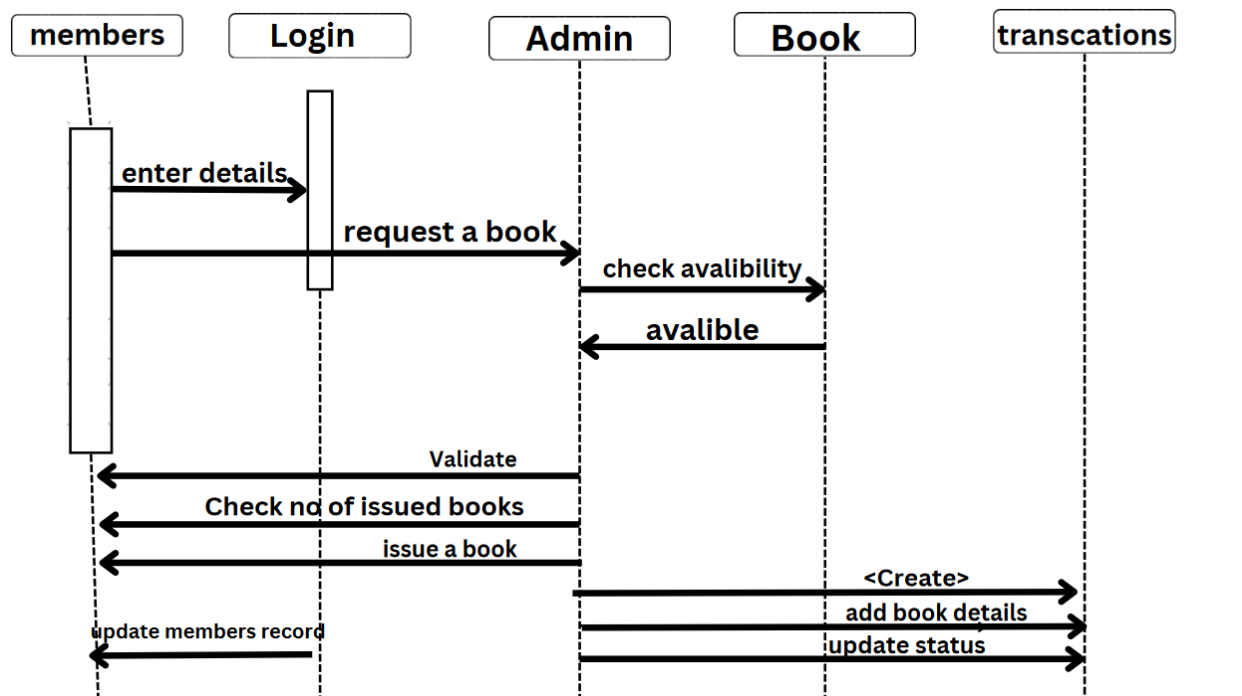
No\_borrowed\_books

No\_returned\_books

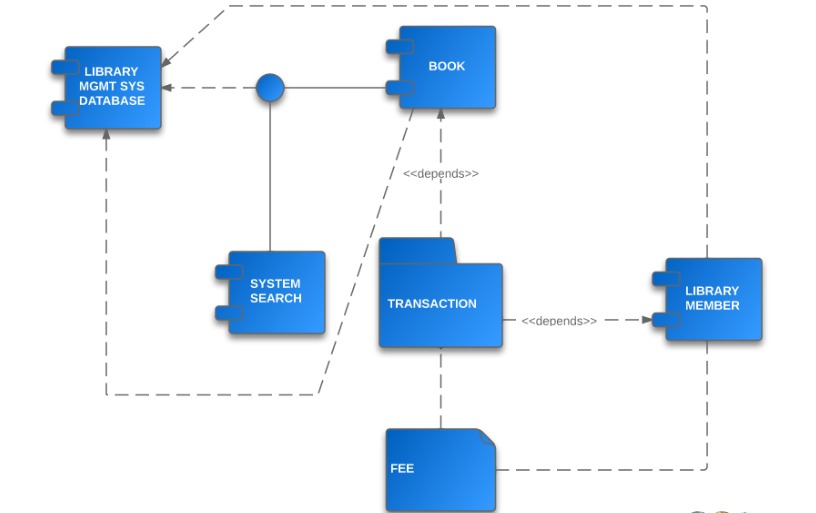
Fine\_amount

Calculate\_fine()

1. Sequence Diagram:

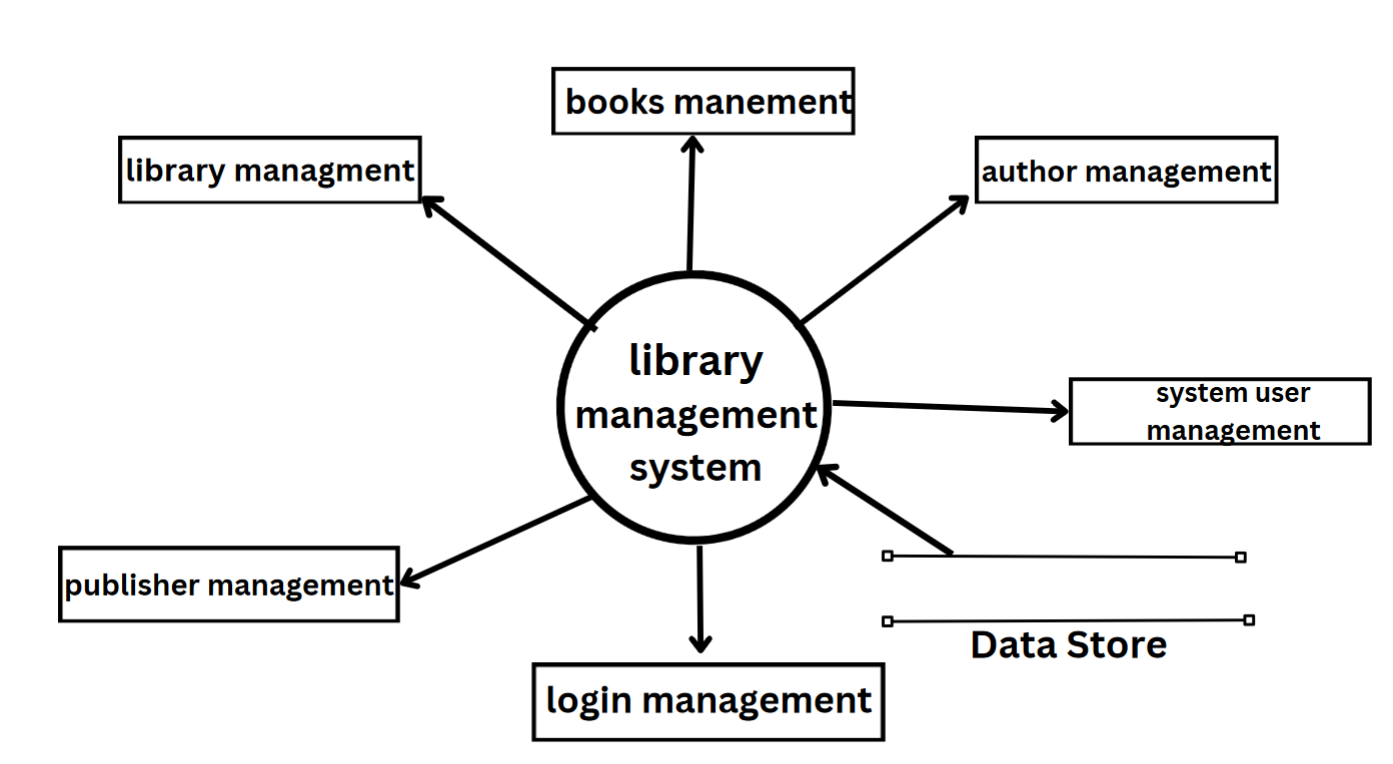


1. Component Diagram:

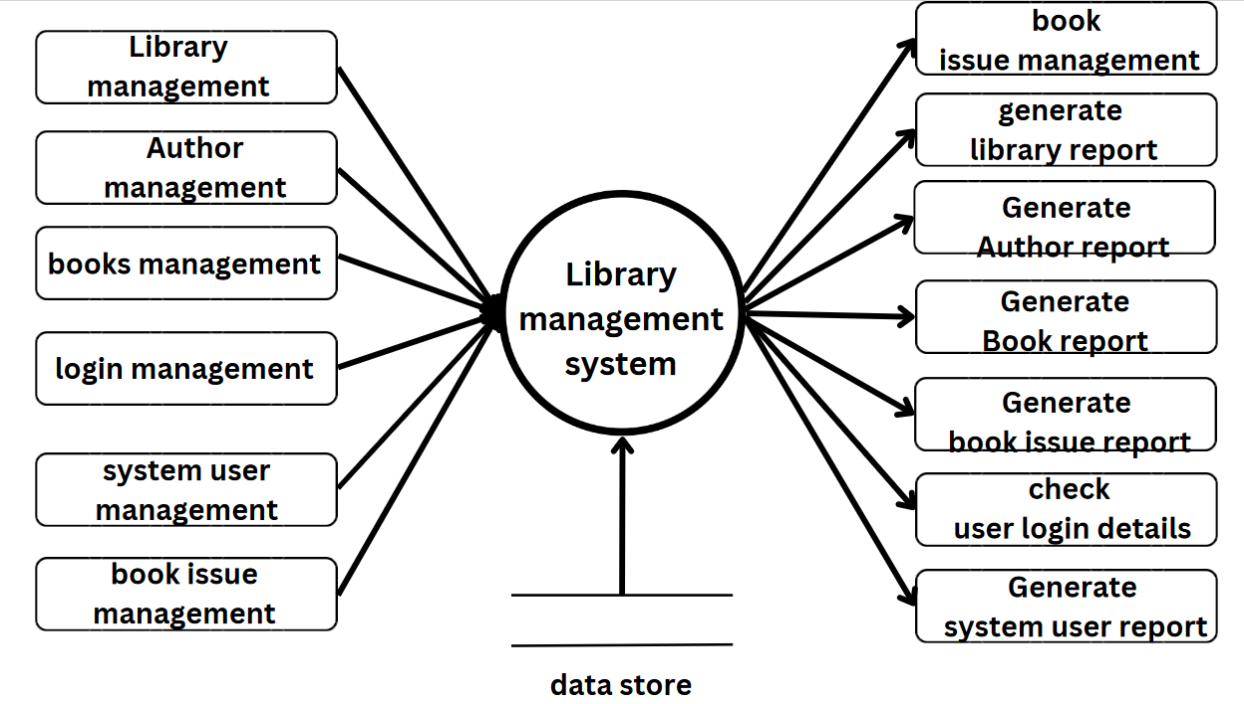


1. Data Flow Diagram:

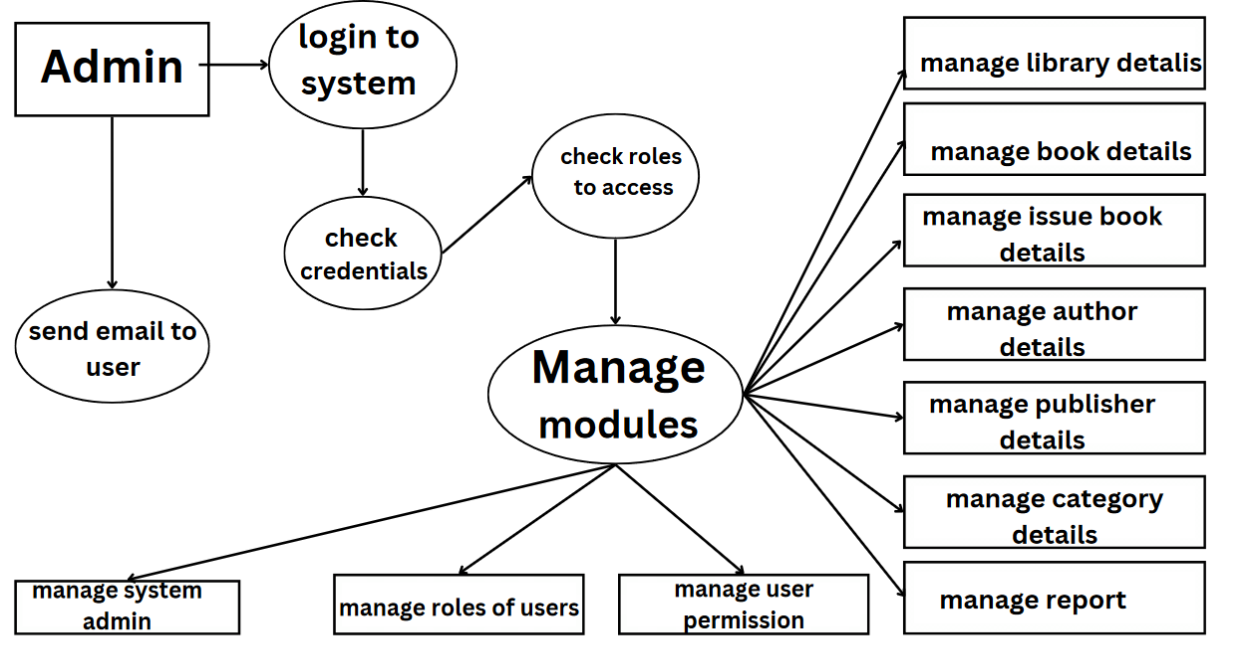
Level 0:



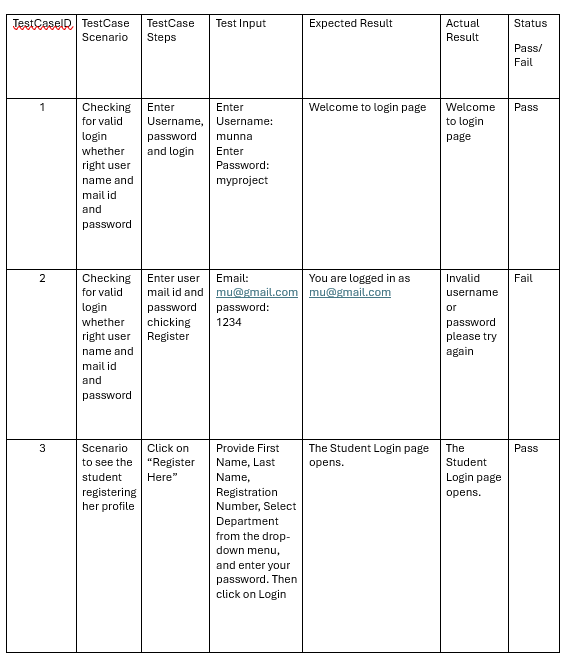
Level 1:

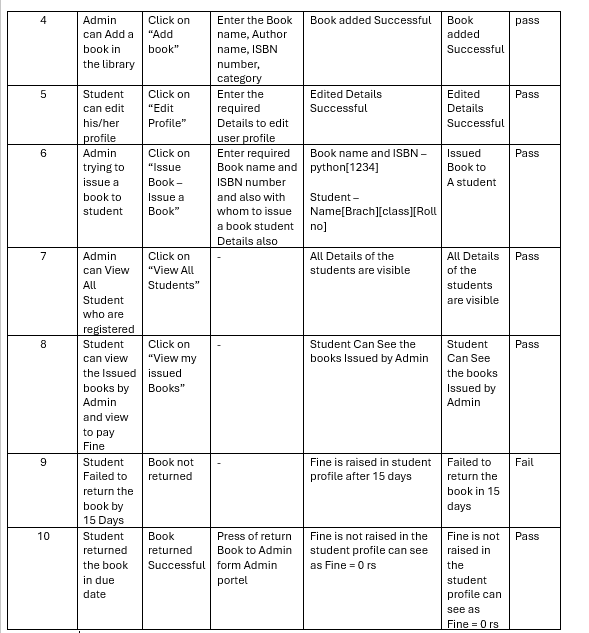


Level 2:



1. Test Cases:





1. Entity-Relationship (E-R) Diagrams:

