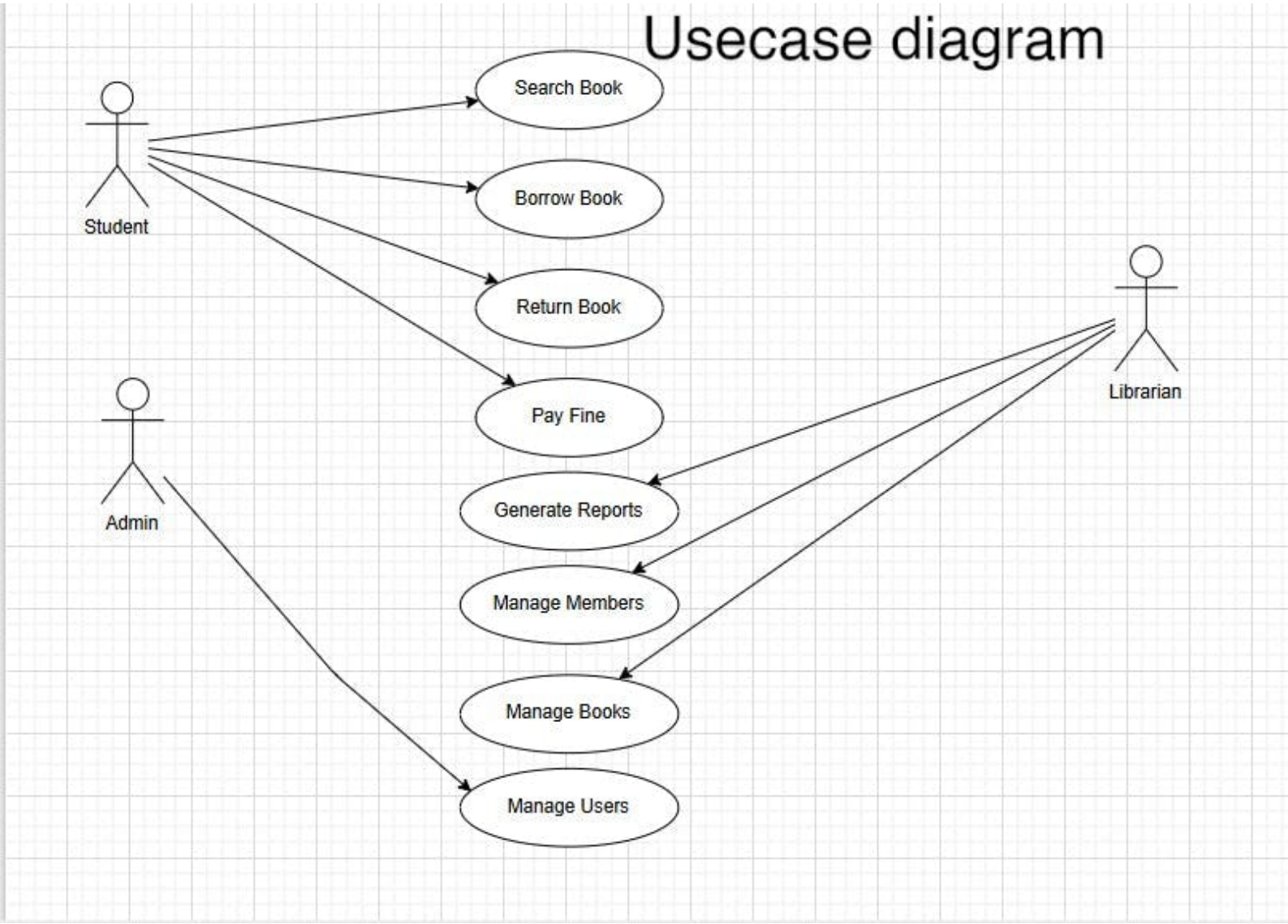
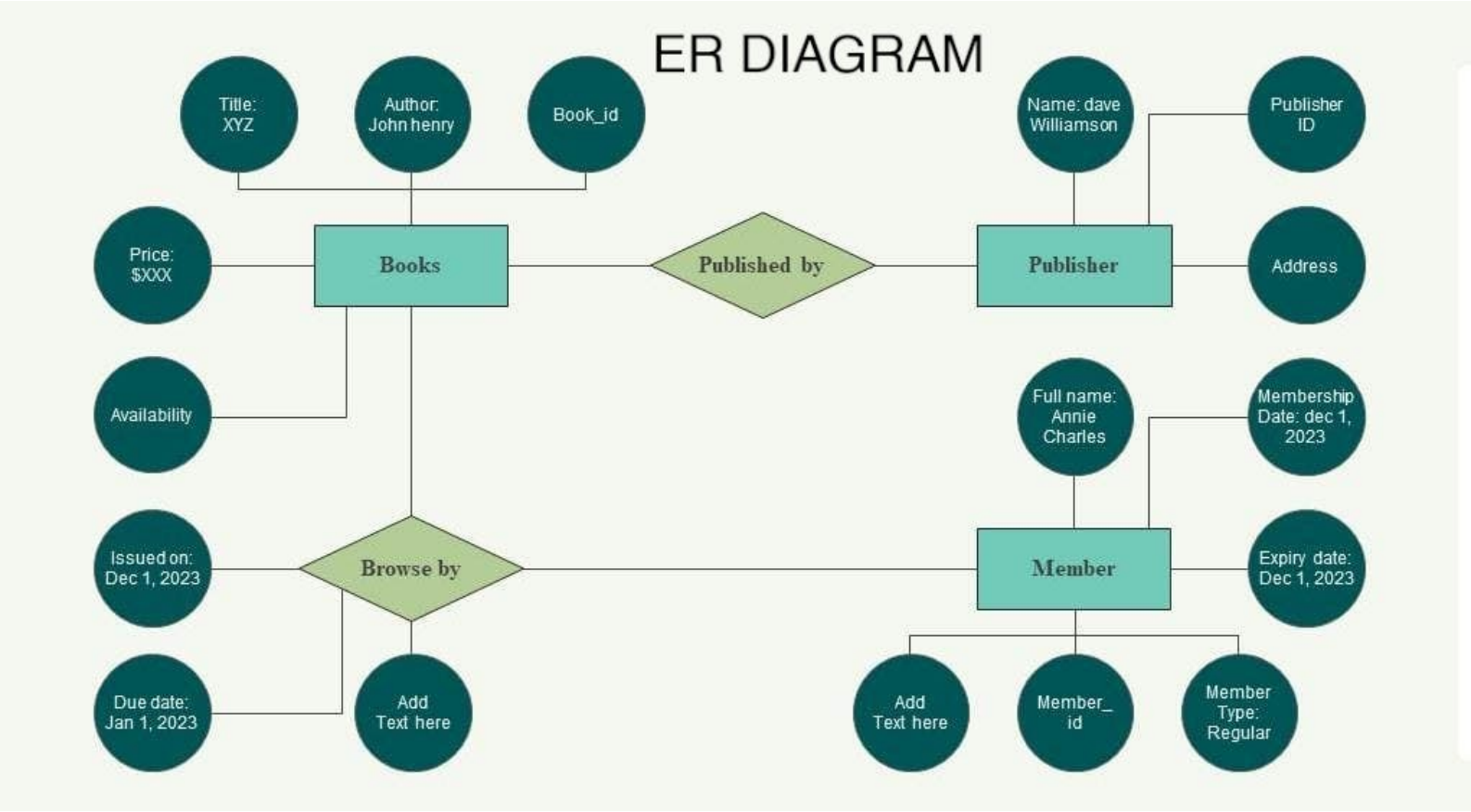
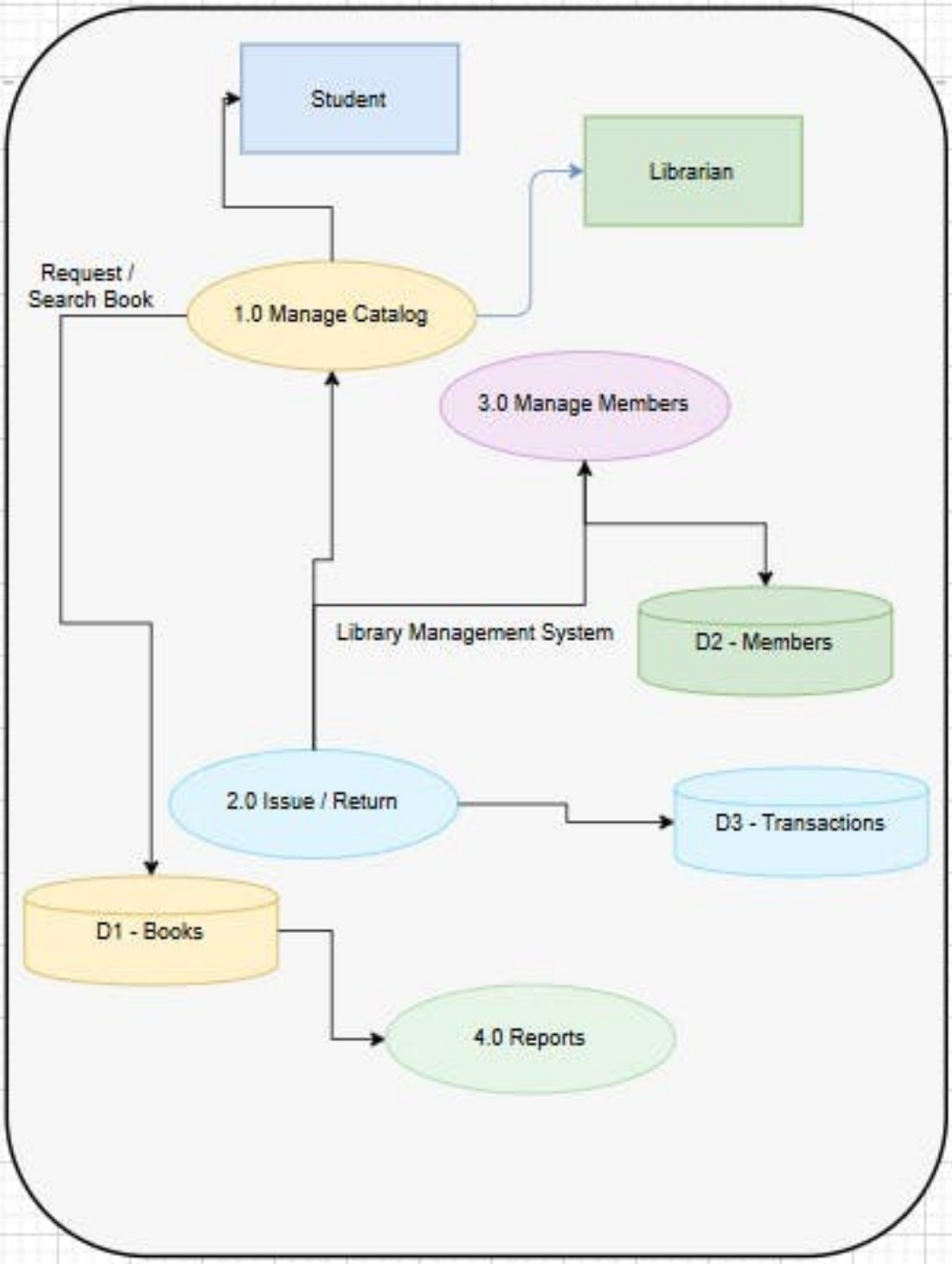
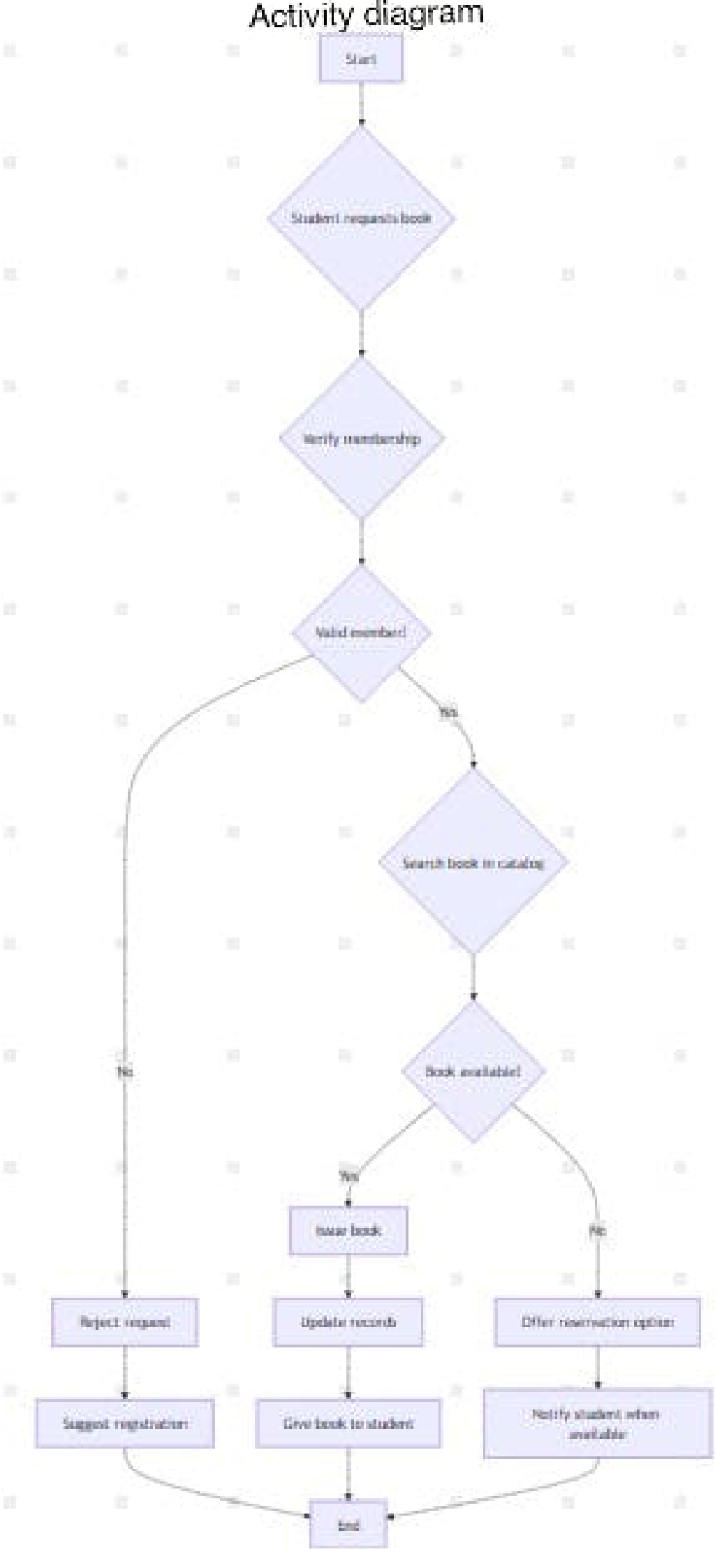
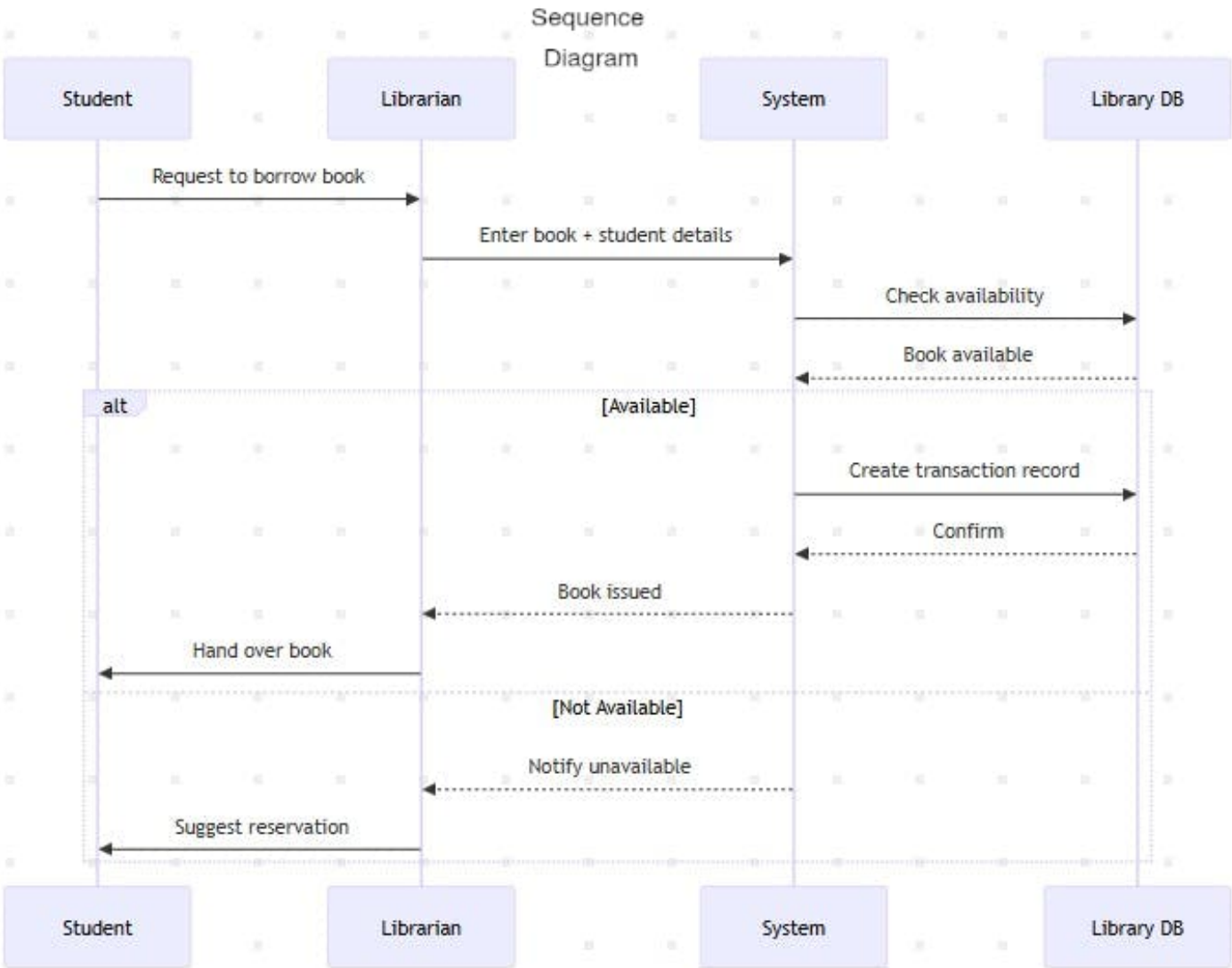
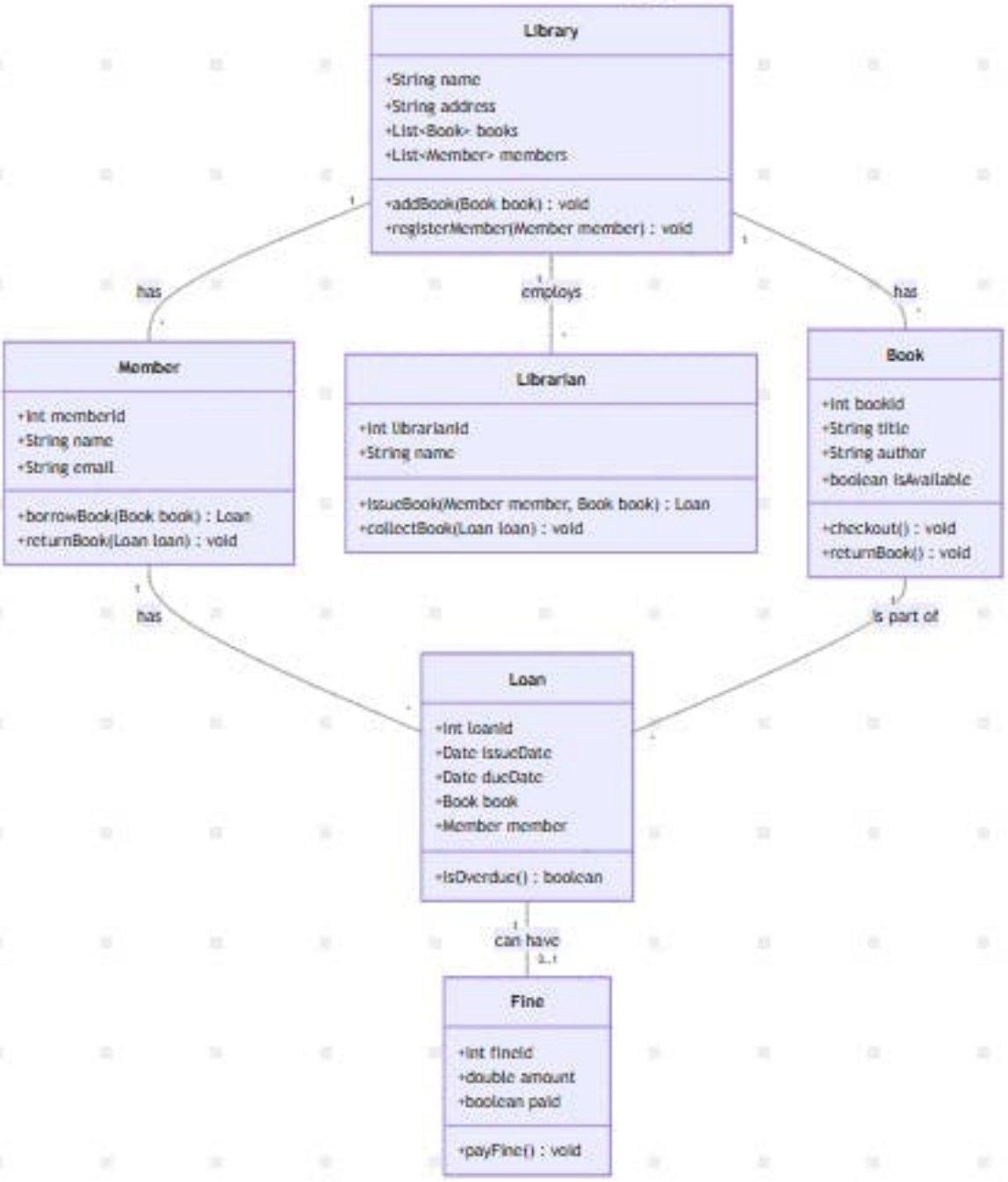

Usecase diagram
Search Book
Borrow Book
Return Book
Pay Fine
Generate Reports
Manage Members
Manage Books
Manage Users
Student
Admin
Librarian


ER DIAGRAM
Title: XYZ
Author: John henry
Book_id
Name: dave Williamson
Publisher ID
Price: $XXX
Books
Published by
Publisher
Address
Availability
Full name: Annie Charles
Membership Date: dec 1, 2023
Issued on: Dec 1, 2023
Browse by
Member
Expiry date: Dec 1, 2023
Due date: Jan 1, 2023
Add Text here
Add Text here
Member_ id
Member Type: Regular

DFD diagram


Student
Librarian
Request /
Search Book
1.0 Manage Catalog
3.0 Manage Members
Library Management System
D2 - Members
2.0 Issue / Return
D3 - Transactions
D1 - Books
4.0 Reports


Activity diagram
Start
Student requests book
Verify membership
Valid member?
No
Search book in catalog
Book available?
No
Yes
Issue book
No
Reject request
Update records
Offer reservation option
Suggest registration
Give book to student
Notify student when available
End


Sequence Diagram
Student
Librarian
System
Library DB
Request to borrow book
Enter book + student details
Check availability
Book available
alt
[Available]
Create transaction record
Confirm
Book issued
Hand over book
[Not Available]
Notify unavailable
Suggest reservation
Student
Librarian
System
Library DB

class diagram