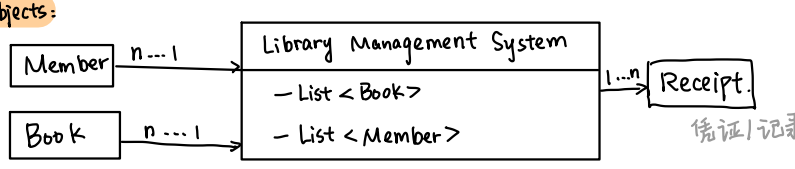
Design a library management system

Classification: Manage book collections (book status, checkout)
member relationships (user profile, subscriptions, reservations)

Core Objects:



Use cases:

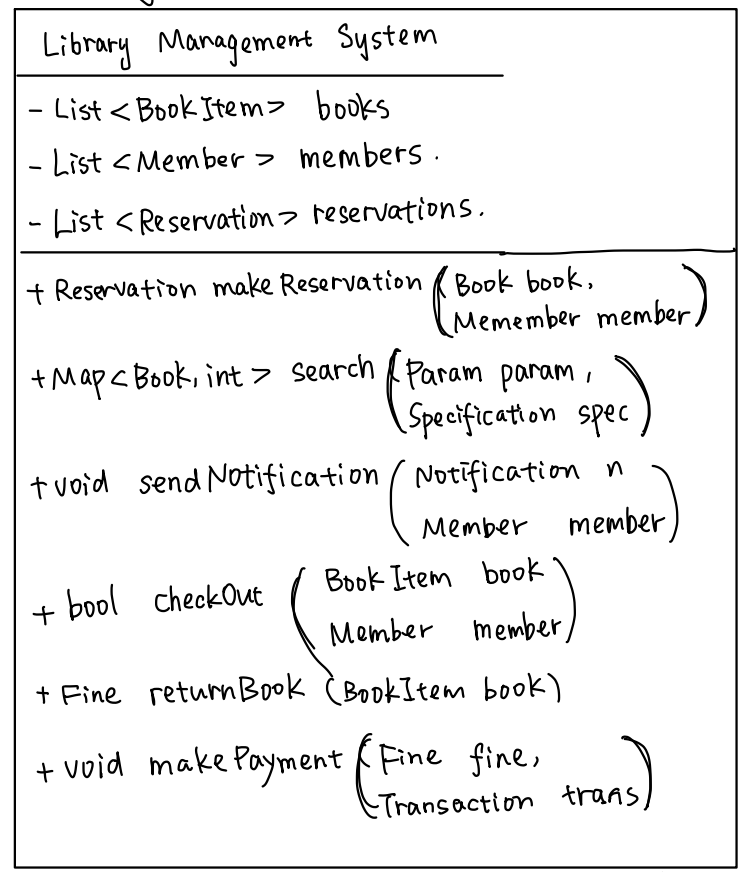
The system should:

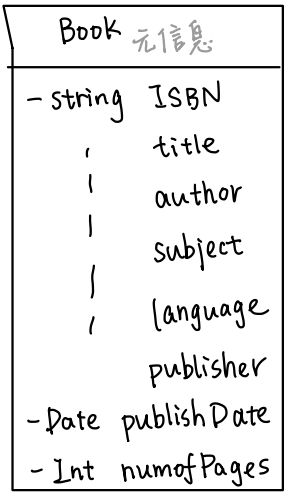
reserve 预约
1. reserve books for pickup
2. reserve books that are not currently available.

serve 服务
3. search books by title, author, subject, publication date
4. lookup who checkout a book
   what books are checked out
5. send notification when a reserved book is available
6. send notification when a book is overdue.

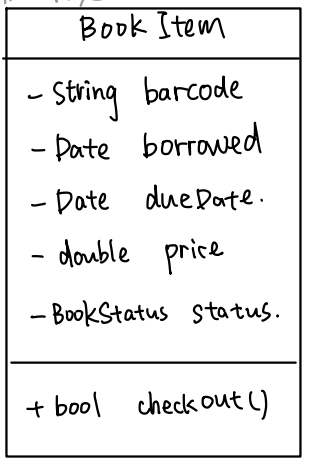
checkout 借阅
7. checkout a book (using book barcode & member barcode)
8. max limit on how many books one can checkout.
9. charge a fine for overdue

Class Diagram

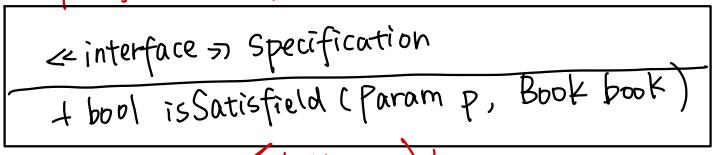




副本信息



specification pattern [whether the incoming object meet the standard rule]



inheritance