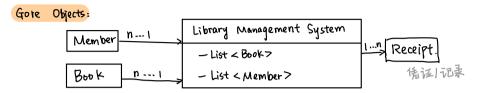


Design a library management system

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



Use cases:

The system should:

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

(7. checkout a book lusing book borrade a marcha lusing book borrade a book lusing book Class Diagram

Library Management System - List < Book Item> pooks - List < Member > members. - List < Reservation > reservations. + Reservation make Reservation (Book book, (Memember member) +Map<Book, int > Search / Param param, (Specification spec) tuoid send Notification / Notification n Member member) + bool checkOut (Book Item book)

Member member) + Fine return Book (Book I tem book) + void make Payment (Fine fine, Ctransaction trans Twhether the incoming objects Specification pattern Ineet the standard rule ∠interface ⇒ Specification + bool is Satisfield (Param p, Book book) inheritance And Specification

Title Specification

+ bool is Soutisfield

(Param P, Book book

- Specification one
- Specification other

+ And Specification
(Specification one)
- - - other)
+ bool isSatisfield (...)

BOOK 无信息 -string ISBN title author subject language publisher -Pate publish Date - Int numof Pages 副相息 Book Item - String barcode - Date borrowed - Date due Date. - double price - BookStatus Status. + bool checkout()

Member

- string member ID

- Date

-string password email

address List< Reservation> reservations

List < BookItem7 books -int getTotal CheckOutBooks()