

Software Engineering Lab

A Store Chain for Book Rental

Modern Book Rental Store(MBRS) is a chain of stores that specializes in book rentals to retain customers of all age groups. MBRS aspires to automate its operations by managing a) its book inventory that has a variety of books, b) its customer data and c) the history of customers' transactions.

MBRS announces various promotions such as 'Promo-A: 20% discount on Kids books' , 'Promo-B: 2 Kids books with zero rental fee if you rent 10 non-fiction books in 30 days', 'Promo-C: Rent 5 new books in a week and get zero rent on one book' and it has plans to announce more such promotions.

In MBRS, for every customer who rents books, the transaction is calculated and optimized to get the minimum rental cost and customer transactions are stored for future use.

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MBRS plans to create a software application that would allow

- Registered customers to 1) view their history of rental, 2) view discounts, 3) check book availability in the store, 4) view customer profile, 5) modify customer profile, and 6) change password
- Front desk executive or receptionist to 1) scan books (or input book codes) and help customers return or 2) rent books and 3) add books to inventory (e.g. new books purchased for the store) – for new books the system would assign a code and print a tag that would be pasted at the back cover.
- Store Supervisor to generate a report on daily rentals, daily returns, and monthly reports to understand the demand for different categories of books
- Store Chain Manager to generate reports that cover all stores in the city

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1. Create a context diagram
2. List all actors
3. List use cases for respective actors
4. Identify entities and create a ER diagram
5. Create sequence diagram and activity diagram for at least two use cases
6. Prepare System Requirement Specifications (SRS) document

Thank you!