

BOOKSTORE FRANCHISE SYSTEM

1. Problem Description

Owning a bookstore franchise with multiple outlets across the United States presents numerous opportunities as well as challenges. With outlets dispersed across the country, it's essential to efficiently oversee diverse regional preferences, supply chains, inventory, and consistent customer experiences across all stores. As digital retail gains momentum, fostering in-store experiences, establishing competitive pricing, and leveraging loyalty programs are crucial to retaining a competitive edge. Furthermore, to remain updated about the bestsellers, bookstore owners must take into consideration the rapidly shifting trends of online purchases.

2. Data to be Captured

A) Book

- ☐ Each book has a unique ISBN (International Standard Book Number)
- ☐ Book name
- ☐ Name of the author
- ☐ Price of the book in USD
- ☐ Genre the book belongs to
- ☐ Publishing company

Genres can range from Fiction, Non-Fiction, Self-Help, to Biography, and more. Some books might span multiple genres. The publishing company help categorize books based on their recency and brand. The price of the book might vary based on paperback, hardcover, special edition.

B) Customer

- ☐ Each customer has a unique Customer ID
- ☐ Full Name: The complete name of the customer, possibly separated into first, middle, and last names for sorting or searching purposes.
- ☐ Phone number
- ☐ Email address
- ☐ Date of birth
- ☐ Membership status: Yes or No based on whether the customer holds membership or not.
- ☐ Feedback: Capture customer feedback for
 1. Quality of book

2. Staff service
3. Overall store ambiance.

Customer feedback will help the owner provide better experience in future.

C) Author

- ☐ Author ID: A unique identifier for each author to ensure that all books related to them are correctly associated.
- ☐ Full Name: The complete name of the author, possibly separated into first, middle, and last names for sorting or searching purposes.

D) Membership Card

- ☐ Customer ID: A link to the unique identifier for the customer who holds the card, ensuring all transactions and benefits are correctly attributed.
- ☐ Issuance Date: The date when the card was issued to the customer.
- ☐ Expiration Date: The date when it will no longer be valid.
- ☐ Renewal Status: Indicates if the loyalty card has been renewed, replaced, or is pending renewal.

A customer holding the Membership card has access to offers while making the purchase such as:

1. Offer A: Flat 10% off the total purchase value
2. Offer B: Gets 25% of the total purchase value as “Card Reward Points” which can be redeemed later across any of the outlets.
3. Offer C: Purchase one book at regular price and get a second book at 20% discount.

E) Store

- ☐ Store ID
- ☐ Location: City and the State where the store is located
- ☐ Overall store rating
- ☐ Number of employees: To keep track of number of employees currently working in the store

The store will have an overall rating based on the feedback provided by all the customers.

F) Inventory

- ☐ Inventory ID
- ☐ Quantity: The current number of units available in stock for each book or item
- ☐ Restock: Whether a particular book needs to be restocked

Restock will store whether a book should be restocked or not? The store owner will restock a book if the no. of copies is below 100.

G) Employee

- ☐ Each staff member has a unique Employee ID
- ☐ Full Name of the employee
- ☐ Contact Information: Phone number, email address, and emergency contact details
- ☐ Job Title: Such as sales associate, store manager, cashier, or inventory specialist

3. Business Goals

1. Generate a monthly sales analysis report for each store, categorizing sales into genres such as Fiction, Non-fiction, Self-help, Fantasy, Thriller, Romance, Biography/Memoirs, and Comics. This analysis aims to gain insights into customer preferences, enabling informed stocking decisions and future inventory planning.
2. Compare the total revenue generated over a month's period by each store to determine top/poor performing outlets of that month.
3. For each store, collect data on the books that have sold more than 200 copies in the previous month, presenting insights for the top 10 best-selling books. It will allow the franchise to capitalize on trending books and anticipate customer demand.
4. Which age group amongst children (0, 12), teens (13, 19), adults (20, 50) and senior (above 50) makes the most purchases and find the genre that sold more than 300 copies amongst that age group.
5. For each store, evaluate the days (Monday - Sunday) during which the store sold more than 500 copies. This aids in optimizing staffing and store hours.
6. Delve deep into seasonal sales data, including periods such as Back-to School (Aug-Sept), Holiday Season (Oct-Dec), and Summer Breaks (June-Aug), to strategically improve marketing schemes and promotional offers. This aids in forecasting for the upcoming seasons accordingly.
7. To examine the impact of the membership program, collect the data on how many customers renewed their subscription and how many new customers added into the program.
8. Examine which promotions/offers were used the most by loyalty cardholders. This can help in designing future loyalty card offers.