Database for Online Bookstore

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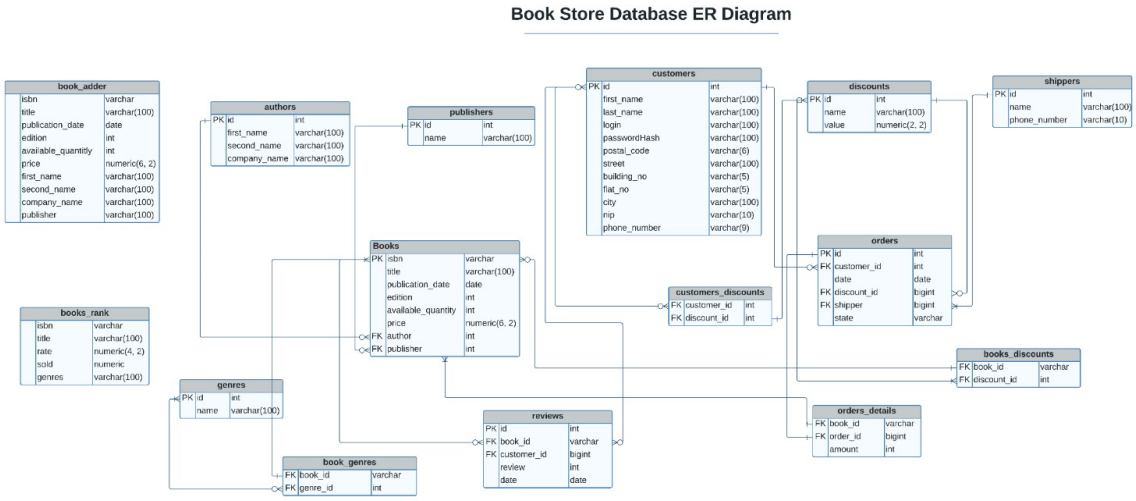
1. OVERVIEW

The project's main goal is to build a Database for the online bookstore that manages the Books, Stock, ISBN of books, Availability of Books, Author, and the publisher details. Also, it contains the details of the ratings and reviews of the book.

2. PROBLEM STATEMENT

As the online bookstore continues to grow and expand its customer base, it is becoming increasingly difficult to manage inventory effectively. The current system for tracking inventory is manual and time-consuming, which can lead to inaccuracies, stockouts, and overstocking. These inefficiencies not only impact customer satisfaction but also result in increased costs for the business.

3. ENTITY RELATIONSHIP DIAGRAM



4. BUSINESS PROBLEM (Draft Version for Project_1)

To address this problem, the online bookstore management team is looking to implement a new inventory management system that is more automated and efficient. This system should allow for real-time tracking of inventory levels, automatic replenishment of stock when it falls below a certain threshold, and the ability to quickly update inventory records when new books are added or removed from the catalog.

In addition, the system should be able to generate reports that provide insights into inventory levels, stockouts, and overstocking, which can be used to optimize the inventory management process and reduce costs. Overall, the goal is to create a more streamlined and efficient inventory management system that supports the growth of the online bookstore while minimizing costs and maximizing customer satisfaction.

5. Tables

Based on the business, we have created an idea of how many tables this system will consist of. These tables will define the database through column name, data type, constraints, and the description of those entities.

1. Books:

Column Name	Data Type	Constraints
isbn	Varchar (100)	Primary Key
author	Integer	Foreign Key
publisher	Integer	
title	Varchar (100)	
Publication_date	Date	
edition	Integer	
price	Numeric (6,2)	
available_quantity	Integer	

2. Customers:

Column Name	Data Type	Constraints
id	Integer	Primary Key
first_name	VARCHAR (100)	Foreign Key
last_name	VARCHAR (100)	
login	VARCHAR (100)	

passwordHash	VARCHAR (100)	
Postal_code	VARCHAR (6)	
street	VARCHAR (100)	
building_no	VARCHAR (5)	
flat_no	VARCHAR (5)	
city	VARCHAR (100)	
phone_number	VARCHAR (100)	

3. Authors:

Column Name	Data Type	Constraints
id	INTEGER	Primary Key
first_name	VARCHAR (100)	
Second_name	VARCHAR (100)	
Company_name	VARCHAR (100)	

4. Publishers:

Column Name	Data Type	Constraints
id	Integer	Primary Key
publisher_name	Varchar (100)	

5. Orders:

Column Name	Data Type	Constraints
id	Integer	Primary key
customer_id	Integer	Foreign Key
date	Date	
discount_id	Integer	
shipper	Integer	Foreign Key
state	Varchar	

6. **Order Details:**

Column Name	Data Type	Constraints
order_id	Integer	
book_id	Integer	
amount	Date	

7. **Discounts:**

Column Name	Data Type	Constraints
id	Integer	Primary Key
name	Varchar	
value	Integer	

8. **Book Discounts:**

Column Name	Data Type	Constraints
book_id	Integer	Primary Key
discount_id	Varchar	

9. **Book genres:**

Column Name	Data Type	Constraints
book_id	Integer	Primary Key
genre_id	Integer	Foreign Key

10. **Genres:**

Column Name	Data Type	Constraints
id	Integer	Primary Key
name	Varchar	

11. Shippers:

Column Name	Data Type	Constraints
id	Integer	Primary Key
name	Varchar(100)	
Phone_number	Varchar(10)	

12. Reviews:

Column Name	Data Type	Constraints
id	INTEGER	Primary Key
book_id	Varchar	
customer_id	Integer	
review	Varchar	
date	Date	