

Data Generation

Our initial dataset that we submitted for the data population assignment was generated by Google Gemini. Please see AI Disclosure.txt on that assignment for more information. We also generated additional sample data for this assignment, which is also AI generated, this time using ChatGPT. We did make some manual changes to the data to resolve conflicts between the two datasets & fix other issues.

Tables with Less 24 Rows

- Book series has less than 24 rows because 24 series would be an unmanageable amount of books for a sample dataset.
- Locations has less than 24 rows because stocking 24 locations would create an unmanageable amount of rows in the book stock table for a sample dataset.

Business Rules

Each order belongs to one, and only one customer.

Each order contains one or more books.

Each employee can work at one and only one location.

Each location should have a manager.

Each order content should have exactly 1 book & 1 order.

Each book stock should have exactly 1 book & 1 location.

Customer Constraints:

A customer has a Customer_ID that is unique and non-null.

A customer has Reward_Points that are greater than or equal to 0, and non-null.

Customers have a Middle_Name that can be null or separated by whitespace.

Each customer must have a First_Name and Last_Name that is non-null.

A customer has a Balance that is non-null.

A customer has zero or one Phone Number.

A customer has zero or one Email.

A customer can place zero or more orders.

Order Constraints:

Each order has an Order_ID that is non-null and unique.

Each order has Books that are non-null.

There is an Order_Date that is non-null.

There is a Total_Cost that is non-null.

Employee Constraints:

Each employee has an Employee_ID that is non-null and unique.

Employees have a Middle_Name that can be null or separated by whitespace.

Each employee must have a First_Name and Last_Name that is non-null.

Each employee should have a Pay_Rate that is more than zero, and non-null.

Book Constraints:

Each book must have an Author.

Each book has a Language that is non-null.

Each book must have an Author, with a Name that is non-null.

Books have a unique and non-null Book_ID.

Books must have a Title.

ISBN is non-null and comprised of 13 numeric characters.

Each book can have one genre and is non-null.

Each book has a Release_Date that is non-null and can be in the future.

Location Constraints:

Each location has a Location_ID that is unique and non-null.

Each location has an Address that is non-null.

Each location has a Phone that is non-null and unique.

Each location has a Size that is non-null.

Every location will be hosted only in the United States.