📚 Online Book Store – SQL Portfolio Project (ATS-Optimized)

🕰️ Project Overview

This project demonstrates **end-to-end SQL database design, data analysis, and business insight generation** for an Online Book Store. It focuses on **relational database modeling, data querying, aggregation, joins, subqueries, and inventory analysis** using MySQL. The project is designed to showcase **job-ready SQL skills** aligned with Data Analyst, Business Analyst, and SQL Developer roles.

🕰️ Skills & Keywords (ATS Optimized)

SQL | MySQL | Database Design | Data Modeling | Data Analysis | Joins | Subqueries | Aggregations | Window Functions | Inventory Management | Sales Analysis | Business Insights | Data Cleaning | Relational Databases | CRUD Operations | Analytical Thinking

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🕰️ Tools & Technologies

- **Database:** MySQL
- **Language:** SQL
- **IDE:** MySQL Workbench
- **Data Format:** CSV
- **Concepts Used:**
- Primary & Foreign Keys
- Joins (INNER, LEFT)
- Aggregate Functions (SUM, AVG, COUNT)
- GROUP BY & HAVING
- Subqueries
- NULL Handling (IFNULL, COALESCE)

🕰️ Database Schema

The database consists of three normalized tables:

📘 Books

Stores book details such as title, author, genre, price, publication year, and available stock.

Customers

Maintains customer demographic information including name, contact details, and location.

🛒 Orders

Captures transactional data such as order date, quantity purchased, and total order value.

Relationships are established using **foreign keys**, ensuring data integrity and efficient querying.

🕰️ Data Import Process

- Imported CSV data using **MySQL Workbench – Table Data Import Wizard**
- Verified column mapping and data types
- Ensured clean and structured data for analysis

🕰️ Key Business Questions Answered

- Genre-wise and book-wise sales performance
- Total revenue and high-value orders
- Customer purchase behavior and repeat buyers
- Most frequently ordered and high-priced books
- Author-wise and genre-wise sales contribution
- Inventory remaining after fulfilling all orders

🕰️ Inventory & Stock Analysis

Implemented multiple approaches to calculate **remaining stock**, handling NULL values using: - CASE statements - IFNULL() - COALESCE()

This highlights real-world inventory challenges and demonstrates robust SQL logic.

🕰️ Insights Generated

- High demand observed in **Mystery, Science Fiction, and Fantasy** genres
- **Romance** genre generates the highest revenue due to higher pricing
- Certain popular books show **stock depletion risks**
- Repeat customers contribute significantly to total sales

🕰️ Business Predictions

- Continued growth expected in high-demand genres
- Revenue optimization possible through better inventory planning
- Stock-outs may impact sales if restocking strategies are not improved

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🕰️ Conclusion

This project highlights strong **SQL querying, analytical thinking, and business problem-solving skills**. It reflects the ability to transform raw transactional data into **actionable insights**, making it suitable for real-world data analytics and database roles.

💻 Author

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📌 *This project is part of my data analytics portfolio and demonstrates practical, industry-relevant SQL skills.*