Online Bookstore SQL Data Analysis

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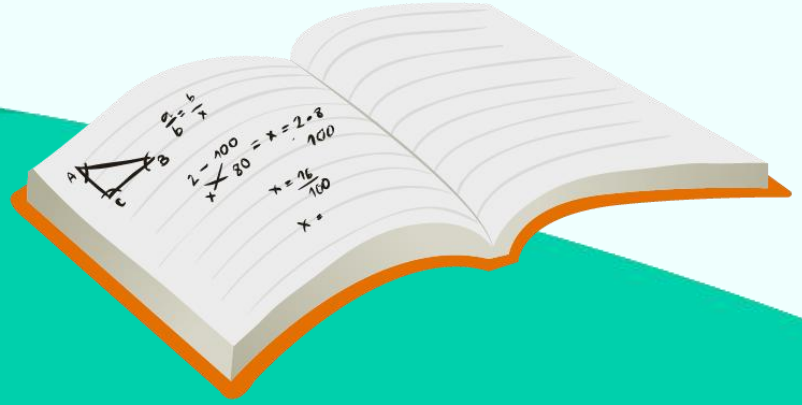
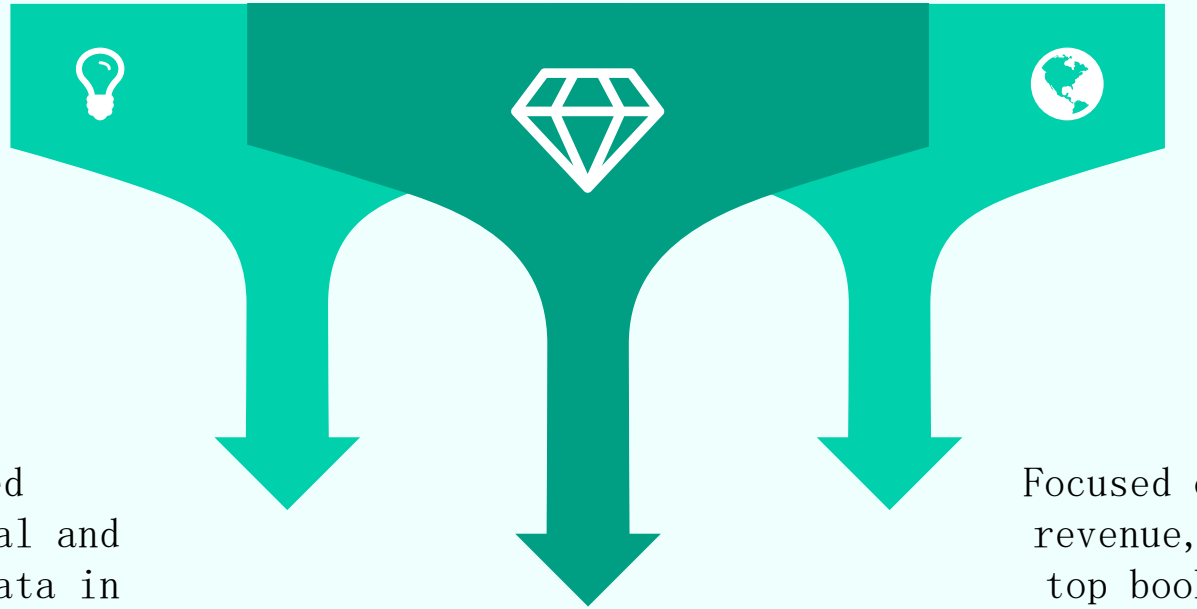


Project Overview



Analyzed transactional and inventory data in PostgreSQL.

Extracted business insights for e-commerce decision-making.

Focused on KPIs like revenue, stock, and top books/authors.

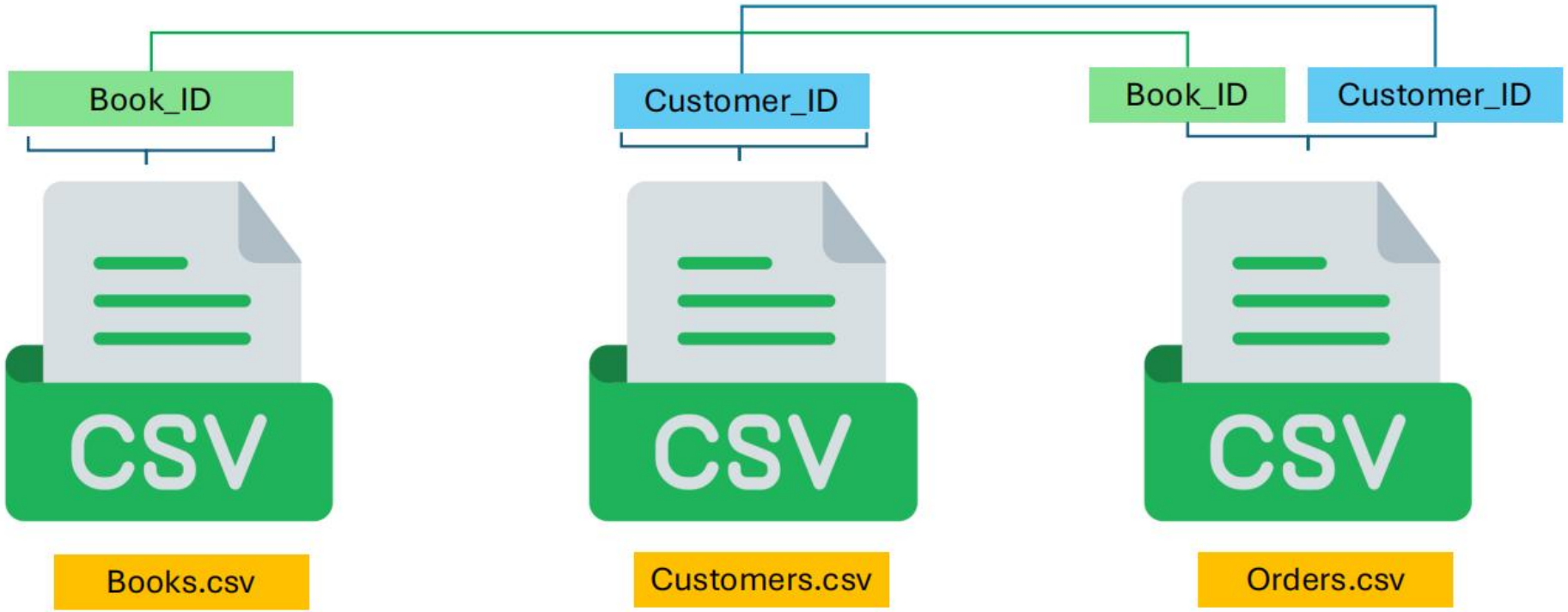
Datasets Used

1. books.csv - title, author, genre, price, stock
2. customers.csv - name, city, country
3. orders.csv - book ID, customer ID, quantity, total amount, order date

Datasets Used

3 CSV Files

Tables must have at least one common column with same column name and same data type



Sample Table

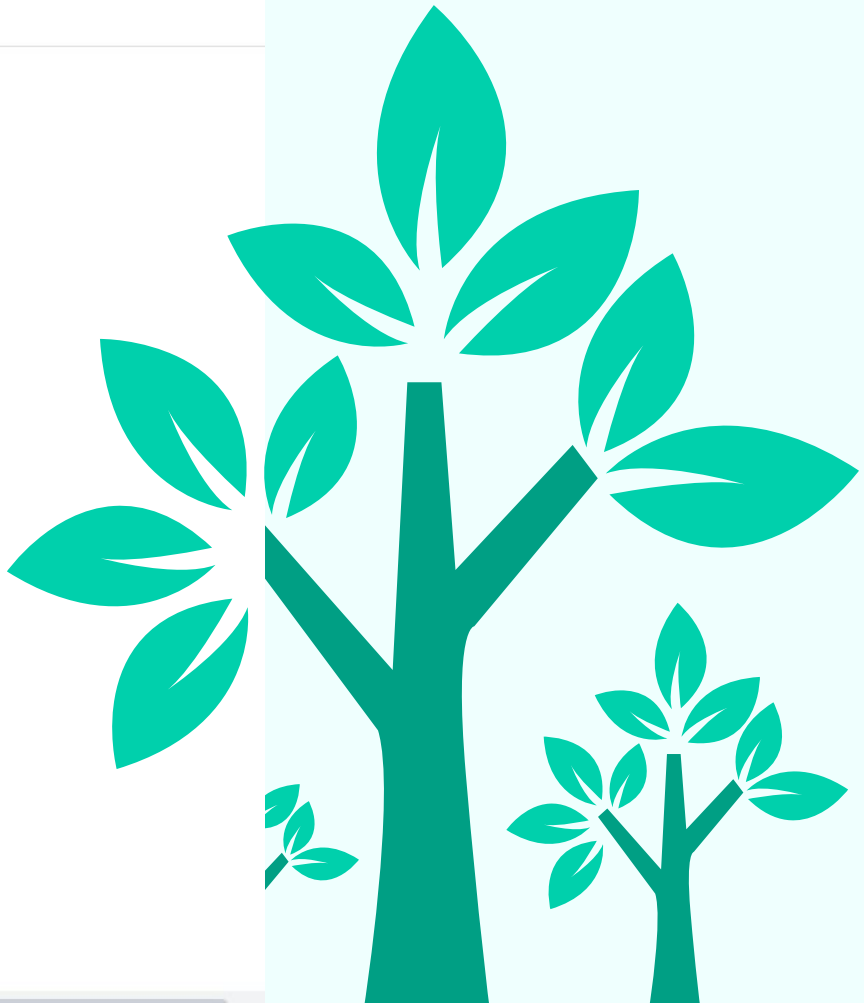
library Analysis Project.sql*

library/postgres@PostgreSQL 17

No limit

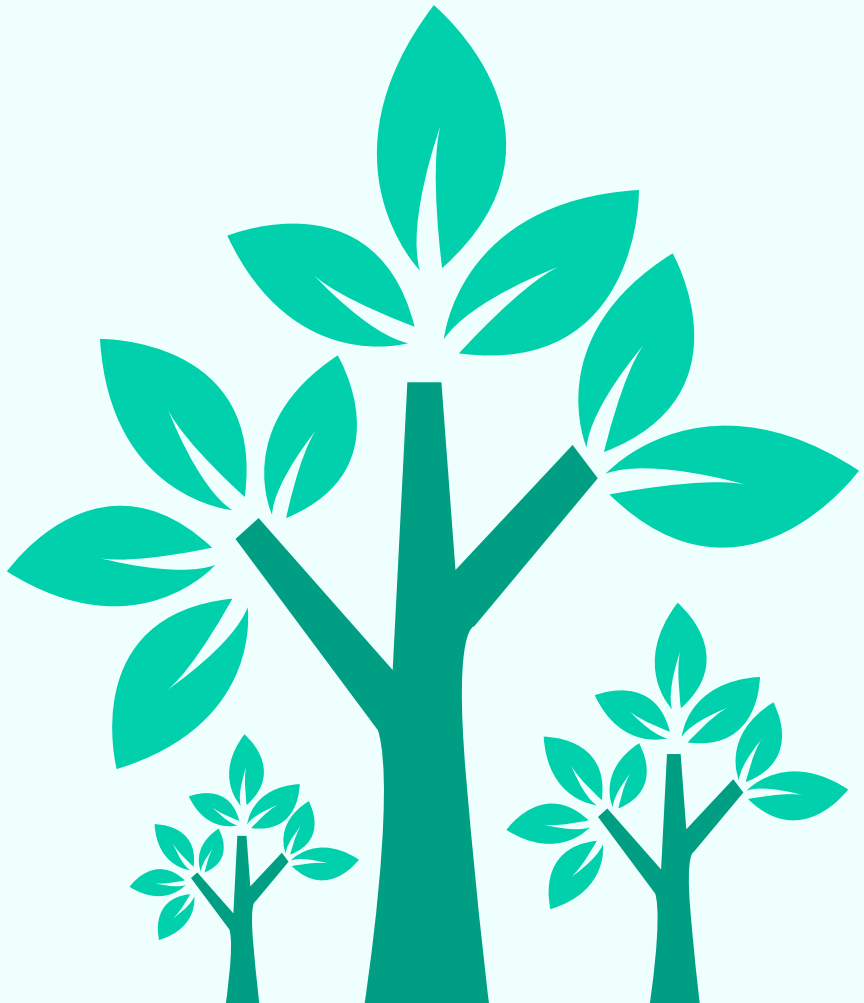
Query | Query History

```sql
CREATE TABLE Books (
    Book_ID SERIAL PRIMARY KEY,
    Title VARCHAR(100),
    Author VARCHAR(100),
    Genre VARCHAR(50),
    Published_Year INT,
    Price NUMERIC(10, 2),
    Stock INT);

CREATE TABLE Customers (
    Customer_ID SERIAL PRIMARY KEY,
    Name VARCHAR(100),
    Email VARCHAR(100),
    Phone VARCHAR(15),
    City VARCHAR(50),
    Country VARCHAR(150));

CREATE TABLE Orders (
    Order_ID SERIAL PRIMARY KEY,
    Customer_ID INT REFERENCES Customers(Customer_ID),
    Book_ID INT REFERENCES Books(Book_ID),
    Order_Date DATE,
    Quantity INT,
    Total_Amount NUMERIC(10, 2));
```



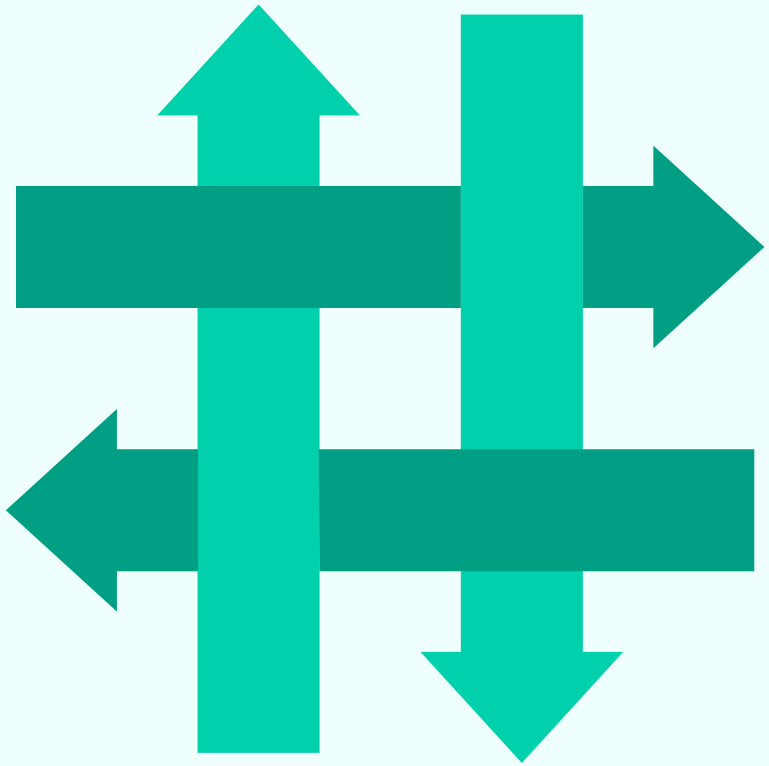
Objectives

- Analyze book sales performance
- Understand customer behavior
- Monitor inventory levels
- Calculate total revenue
- Identify top authors and regions



Business Problems

- Best performing genres/books
- Total revenue



- Most loyal and profitable customers
- Stock after orders
- Top cities/regions by value

Methodology

Import and clean CSV data

Basic SQL exploration

Advanced SQL with JOINs & aggregations

KPI modeling

Generate insights

Key Insights

- Fiction: highest-selling genre
- High-spending customers identified
- Total revenue calculated
- Remaining stock determined
- Top authors/books listed

Skills Gained

- Real-world SQL queries

- Managing relational tables

- Translating KPIs to database logic

- Business-focused data analysis mindset

Basic Queries

1) Retrieve all books in the "Fiction" genre

2) Find books published after the year 1950

3) List all customers from the Canada

4) Show orders placed in November 2023

5) Retrieve the total stock of books available

6) Find the details of the most expensive book

7) Show all customers who ordered more than 1 quantity of a book

8) Retrieve all orders where the total amount exceeds $20

9) List all genres available in the Books table

10) Find the book with the lowest stock

11) Calculate the total revenue generated from all orders

Advance Queries

1) Retrieve the total number of books sold for each genre
2) Find the average price of books in the "Fantasy" genre
3) List customers who have placed at least 2 orders
4) Find the most frequently ordered book
5) Show the top 3 most expensive books of 'Fantasy' Genre
6) Retrieve the total quantity of books sold by each author
7) List the cities where customers who spent over $30 are located
8) Find the customer who spent the most on orders
9) Calculate the stock remaining after fulfilling all orders

Conclusion

1

First complete SQL project - from CSVs to KPIs.

2

Improved SQL skills and business analysis thinking.

3

Strong portfolio addition for GitHub and LinkedIn.

Thank You!

Every great presentation is complete with a great audience
— and that’s you!