E-commerce SQL Database Project

(Online Retail Sales Database Design)

Objective

Design and implement a normalized relational database system for an online retail store using MySQL. The system handles users, products, orders, and payments.

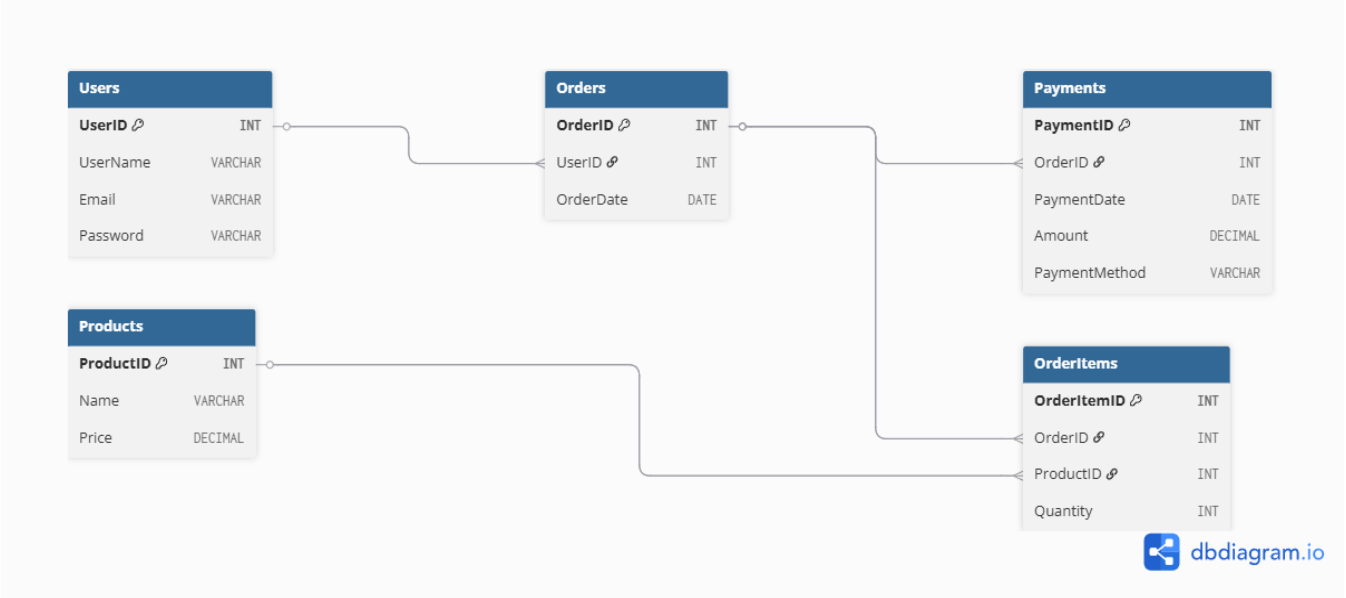
Tools Used

- MySQL (phpMyAdmin via XAMPP)
- dbdiagram.io (for ER Diagram)
- GitHub (Version Control)

Entities & Relationships

- Users: customers
- Products: items for sale
- Orders: transactions made by users
- OrderItems: items within each order
- Payments: payment details

ER Diagram



Implementation and Results

Step 1: Created ecommerce_project database using phpMyAdmin.
Step 2: Created tables: Users, Products, Orders, OrderItems, Payments.
Step 3: Inserted sample data for testing (10–20 rows per table).
Step 4: Wrote analysis queries (e.g., user order summary, top-selling products).
Step 5: Created views such as:
- ProductSales
- UserOrderSummary
- OrderDetails

Step 6: Designed ER Diagram using dbdiagram.io.
Step 7: Exported the project as ecommerce_project.sql and uploaded to GitHub.
✅ All queries and views tested successfully.

Conclusion

The SQL project replicates a simplified online store database. It showcases SQL data modeling, joins, groupings, and views effectively.

[Optional Screenshot of phpMyAdmin, query result, or view]