

SQL Task

Task:

Create a database and tables to manage a simple e-commerce system.
The system should have three tables: customers, orders, and products.

Requirements:

- Create a database named ecommerce.
- Create three tables: customers, orders, and products.
- Insert some sample data into the tables.

Table Structure:

customers

id (primary key, auto-increment): unique identifier for each customer
name: customer's name
email: customer's email address
address: customer's address

orders

id (primary key, auto-increment): unique identifier for each order
customer_id (foreign key referencing customers.id): a customer who placed the order
order_date: date the order was placed
total_amount: total amount of the order

products

id (primary key, auto-increment): unique identifier for each product
name: product's name
price: product's price
description: product's description

Queries to Write:

- Retrieve all customers who have placed an order in the last 30 days.
- Get the total amount of all orders placed by each customer.
- Update the price of Product C to 45.00.
- Add a new column discount to the products table.
- Retrieve the top 3 products with the highest price.

- Get the names of customers who have ordered Product A.
- Join the orders and customers tables to retrieve the customer's name and order date for each order.
- Retrieve the orders with a total amount greater than 150.00.
- Normalize the database by creating a separate table for order items and updating the orders table to reference the order_items table.
- Retrieve the average total of all orders.

Note:

- Use MySQL syntax and formatting for your queries.
- Provide clear and concise comments for each query explaining what it does.