[DDL] Exercises for practicing DDL statements on an **eStoreApp** database schema:

Write the following DDL statements to do the following:

1. Create a database named eStoreApp.
2. Create a table called **products** with the following columns:
    - id (integer, primary key)
    - name (varchar, max length 100, not null)
    - price (decimal, 10 digits, 2 decimal places, not null)
    - description (text)
    - created_at (timestamp, default current timestamp)
3. Add a column called **quantity** to the **products** table. The column should be of type integer and not nullable.
4. Create a table called **tags** with the following columns:
    - id (integer, primary key)
    - name (varchar, max length 50, not null)
5. Create a table called **users** with the following columns:
    - id (integer, primary key)
    - username (varchar, max length 50, not null)
    - email (varchar, max length 100, not null)
    - password (varchar, max length 100, not null)
    - created_at (timestamp, default current timestamp)
6. Create a table called **orders** with the following columns:
    - id (integer, primary key)
    - user_id (integer, not null,)
    - created_at (timestamp, default current timestamp)

7. Create a table called **order_products** to represent the products within an order. The table should have the following columns:
    - id (integer, primary key)
    - order_id (integer, not null,)
    - product_id (integer, not null,)
    - quantity (integer)
    - price (decimal, 10 digits, 2 decimal places, not null)
8. Create a table called **addresses** to store shipping addresses. The table should have the following columns:
    - id (integer, primary key)
    - user_id (integer, not null,)
    - address_line1 (varchar, max length 100, not null)
    - address_line2 (varchar, max length 100)
    - city (varchar, max length 50, not null)
    - state (varchar, max length 50, not null)
    - country (varchar, max length 50, not null)
    - postal_code (varchar, max length 20, not null)
9. Add a column called **is_featured** to the **products** table. The column should be of type boolean and have a default value of false.
10. Create a table called **reviews** to store product reviews. The table should have the following columns:
    - id (integer, primary key)
    - product_id (integer, not null,)
    - user_id (integer, not null,)

- rating (integer, range 1-5)
- comment (text)
- created_at (timestamp, default current timestamp)

11. Add a column called **is_admin** to the **users** table. The column should be of type boolean and have a default value of false.
12. Create a table called **discounts** to store information about product discounts. The table should have the following columns:
    - id (integer, primary key)
    - product_id (integer, not null,)
    - discount_percentage (decimal, 5 digits, 2 decimal places, not null)
    - start_date (date)
    - end_date (date)
13. Create a table called **order_status** to store possible order statuses. The table should have the following columns:
    - id (integer, primary key)
    - name (varchar, max length 50, not null)
14. Add a column called **status_id** to the **orders** table. The column should be of type integer.
15. Create a table called **images** to store product images. The table should have the following columns:
    - id (integer, primary key)
    - product_id (integer, not null,)
    - file_path (varchar, max length 100, not null)

[DML] Exercises to practice DML statements on an **eStoreApp** database schema:

Write the following DDL statements to do the following:

1. Retrieve all products from the products table.
2. Insert a new product into the products table with the following details:
    - Name: "iPhone 13"
    - Price: 1099.99
    - Description: "Latest Apple smartphone with advanced features."
3. Update the price of the product with ID 5 in the products table. Set the new price to 24.99.
4. Delete the product with ID 3 from the products table.
5. Retrieve all products from the products table that have a price less than 50.
6. Insert a new review into the reviews table with the following details:
    - Product ID: 7
    - User ID: 12
    - Rating: 4
    - Comment: "Great product! Highly recommended."
7. Update the rating of the review with ID 9 in the reviews table. Set the new rating to 5.
8. Delete all reviews from the reviews table that have a rating lower than 3.
9. Retrieve the total number of orders placed by user ID 8 from the orders table.
10. Insert a new order into the orders table with the following details:

- User ID: 15
- Created At: current timestamp

11. Update the status of the order with ID 12 in the orders table. Set the new status to "Shipped".
12. Delete all orders from the orders table that were created before a specific date.
13. Retrieve the average rating of all products from the reviews table.
14. Insert a new image for product ID 6 into the images table with the file path "images/product6.jpg".
15. Delete the image with ID 4 from the images table.