Scenario: "Modern Lifestyle Shopping Mall, UrbanShop"

Background

UrbanShop is an online shopping mall that sells modern and trendy products. Customers can browse and purchase a variety of products such as clothing, electronics, and home decor. The business must be designed with scalability in mind, ensuring systematic management of customer data, product data, and order history.

Key Requirements

Customer Management

- Customers register their information to use the shopping mall.
- Customer information includes name, email, phone number, and password.
- Each customer can have multiple shipping addresses.
- Customers can leave reviews for products.

Product Management

- Products have a unique ID, name, price, category, description, and brand information.
- Each product's stock quantity must be tracked, with a minimum stock threshold set.
- Products can have multiple attached images.
- Specific products can participate in promotions (discount price, duration, etc.).

Order Management

- Customers can order multiple products at once.
- Orders include the customer, order date, shipping address, and order status (e.g., "Processing," "Shipped," "Delivered," "Canceled").
- Each order's details include product, quantity, unit price, and subtotal.
- Shipping tracking numbers and courier information must be stored.

Payment Management

- Payments support various methods such as credit card, PayPal, and bank transfer.

- Payment information includes the payment method, payment date, and total payment amount.

- Orders must have a payment status (e.g., "Pending," "Completed," "Refunded").

Reviews and Ratings

- Customers can leave reviews and ratings for products.

- Reviews include the creation date, content, and a rating (1–5 stars).

- Each product can have multiple reviews, and its average rating must be calculable.

Admin Features

- Admins can add, update, and delete products.

- Admins can manage the customer list and update order statuses.