Online Retail System

1. INSERT OPERATIONS :

- Insert a new Customer (FullName, PhoneNumber, Email, ShippingAddress, RegistrationDate)

- Insert 3 new Suppliers

- Insert 2 Categories

- Insert a Product but only (Name, UnitPrice)

- Create table ArchivedStock (TranId, ProductId, QuantityChange, TranDate) Insert into ArchivedStock all StockTransactions before 2023

2. TEMPORARY TABLES

- Create #CustomerOrders with (OrderId, CustomerId, TotalAmount) Insert customers who made orders above 5000.

- Create ##TopRatedProducts with (ProductId, Rating) Insert products with rating ≥ 4.5

3. UPDATE OPERATIONS

- Increase all UnitPrice by 10% for products under 100 EGP

- Update Order Status: If TotalAmount > 5000 → "Premium" Else → "Standard"

4. DELETE OPERATIONS

- Delete a Review by ReviewId

- Delete all Orders with Status = "Cancelled

- Delete OrderItems for a given OrderId

5. MERGE OPERATION

- Create table #ProductsUpdate (ProductId, Name, UnitPrice, StockQuantity)

   MERGE logic:

   If product exists → UPDATE price & stock

   If new → INSERT

   If a product exists in main table but not in update table →

   DELETE

Hotel System

1. INSERT OPERATIONS :

- Insert a Guest (FullName, Nationality, PassportNumber, DateOfBirth)

- Insert multiple Guests in one statement

2. UPDATE OPERATIONS

- Increase DailyRate by 15% for all suites

- Update ReservationStatus: If CheckoutDate < GETDATE() → 'Completed' If CheckinDate > GETDATE() → 'Upcoming' Else → 'Active'

3. DELETE OPERATIONS

- Delete Reservation_Guest for a reservation

4. MERGE OPERATION

- Create table #StaffUpdates (StaffId, FullName, Position, Salary)

  MERGE logic:

  Match → Update Position + Salary

  Not matched in Hotel DB → Insert

  Not matched in Update table → Delete