

## 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 (TransId, 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  $\geq 4.5$  ✓

### 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