

**Course Title : Database Management System Lab**

**Project Name : Warehouse Management System**

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**WAREHOUSE MANAGEMENT SYSTEM**

**The information which are going to be available in the database are given below:**

A Warehouse Management System (WMS) is a software application designed to support and optimize warehouse or distribution center management. It facilitates various functions, including inventory management, order fulfillment, shipping and receiving and many more feature within the warehouse.

**Table:** Warehouses

**Attributes:** warehouse\_id, name, location

**Relations:**

1. Warehouses – warehouse\_id – Inventory
2. Warehouses – warehouse\_id – Transfers (as source\_warehouse\_id and destination\_warehouse\_id)
3. Warehouses – warehouse\_id – Orders
4. Warehouses – warehouse\_id – Supply\_Orders

**Table:** Products

**Attributes:** product\_id, name, category, price

**Relations:**

1. Products – product\_id – Inventory
2. Products – product\_id – Transfers
3. Products – product\_id – Orders
4. Products – product\_id – Supply\_Orders

**Table:** Inventory

**Attributes:** inventory\_id, warehouse\_id product\_id, quantity, last\_updated, flight\_name, flight\_date, plane\_name

**Relations:**

1. Inventory – warehouse\_id – Warehouses
2. Inventory – product\_id – Products

**Table:** Transfers

**Attributes:** transfer\_id, source\_warehouse\_id, destination\_warehouse\_id, product\_id, transfer\_quantity,transfer\_date,

**Relations:**

1. Transfers – source\_warehouse\_id – Warehouses
2. Transfers – destination\_warehouse\_id – Warehouses
3. Transfers – product\_id – Products

**Table:** Suppliers

**Attributes:** supplier\_id, supplier\_name, contact\_info,

**Relations:**

1. Suppliers – supplier\_id – Supply\_Orders

**Table:** Orders

**Attributes:** order\_id, product\_id, warehouse\_id, order\_quantity, order\_date,delivery\_date, customer\_name, customer\_contact,

**Relations:**

1. Orders – product\_id – Products
2. Orders – warehouse\_id – Warehouses

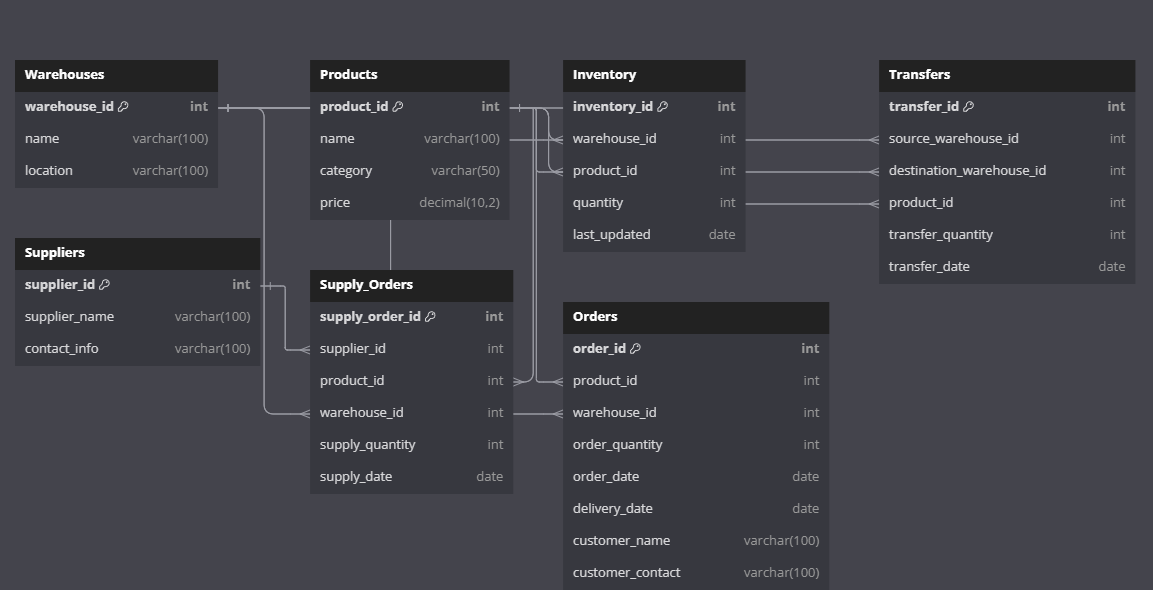
**Table:** Supply\_Orders

**Attributes:** order\_id, product\_id, warehouse\_id, order\_quantity, order\_date,delivery\_date, customer\_name, customer\_contact,

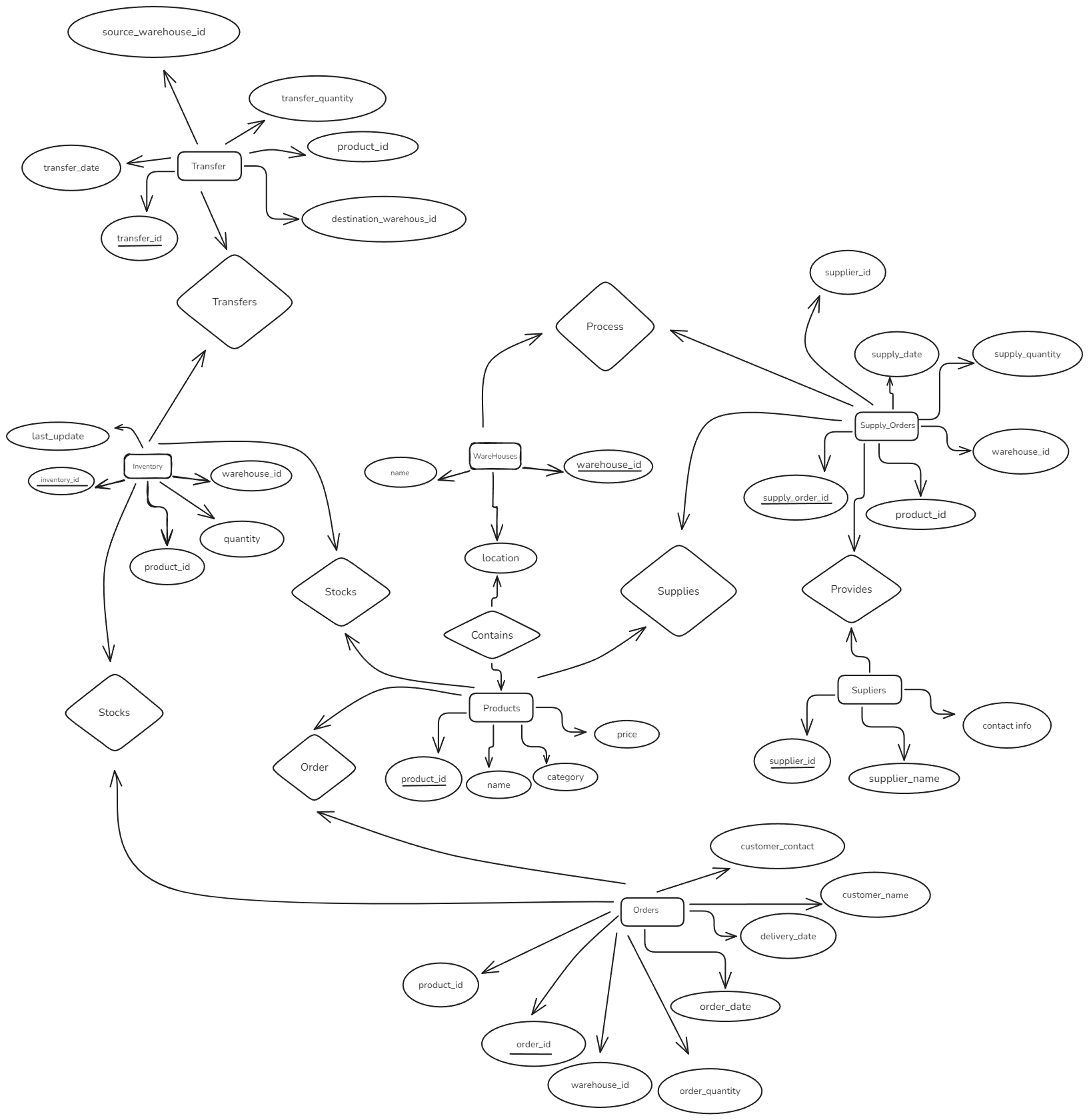
**Relations:**

1. Supply\_Orders – supplier\_id – Suppliers
2. Supply\_Orders – product\_id – Products
3. Supply\_Orders – warehouse\_id – Warehouses

**Schema Diagram For WareHouse Management System**

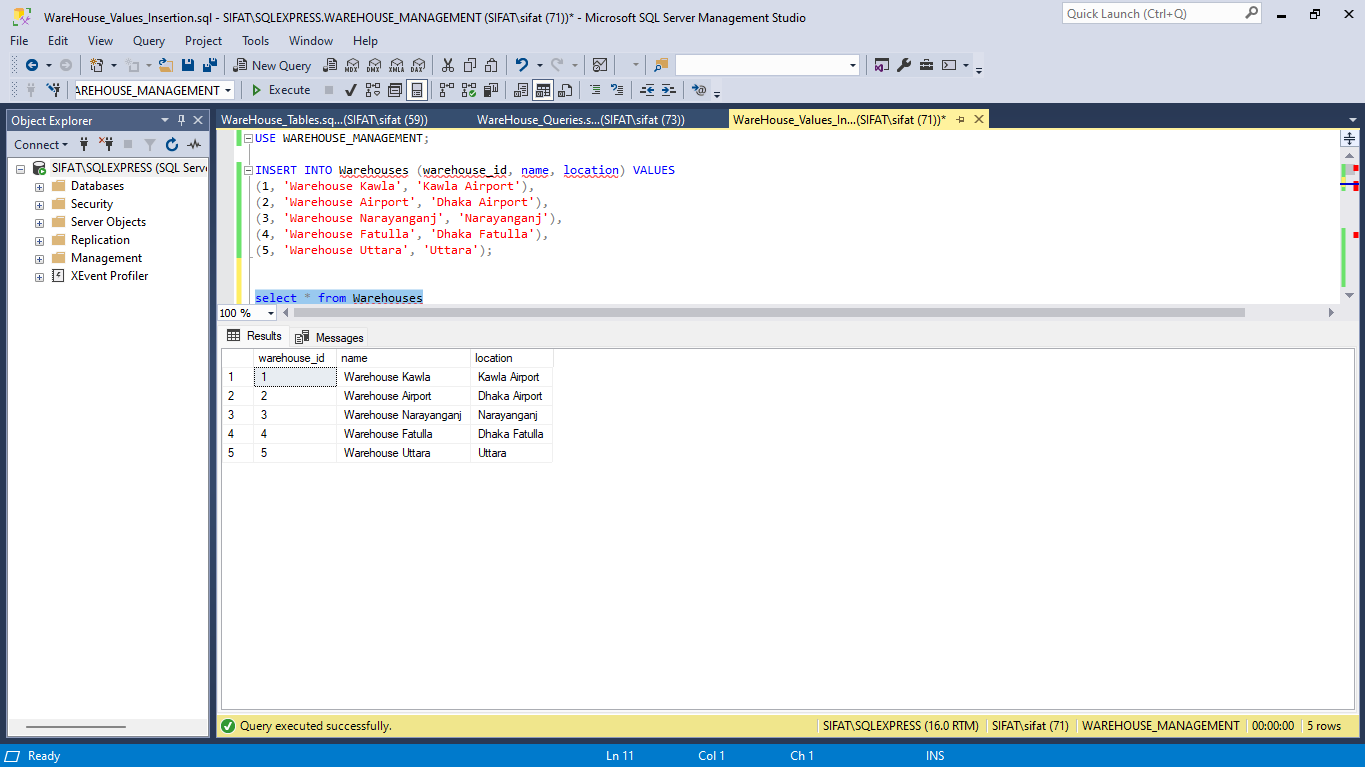


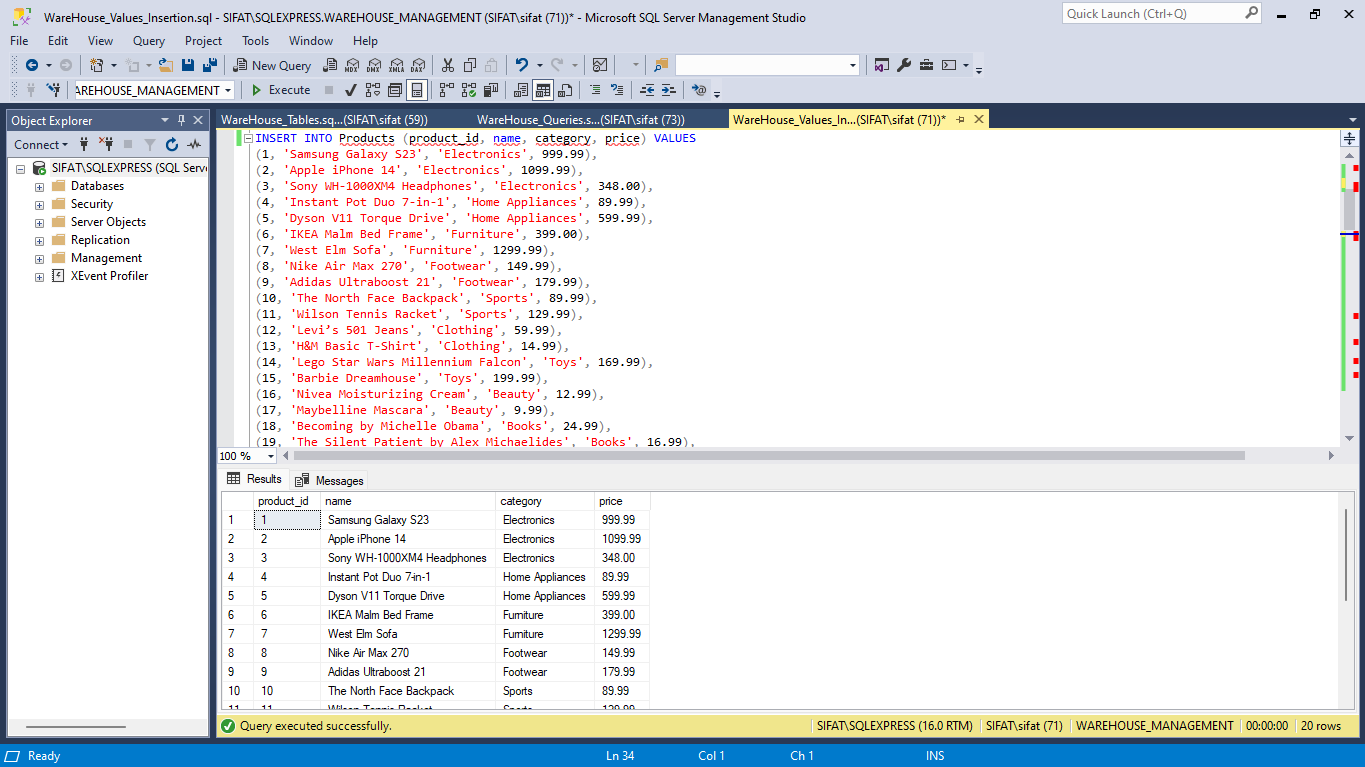
**ER Diagram For WareHouse Management System**

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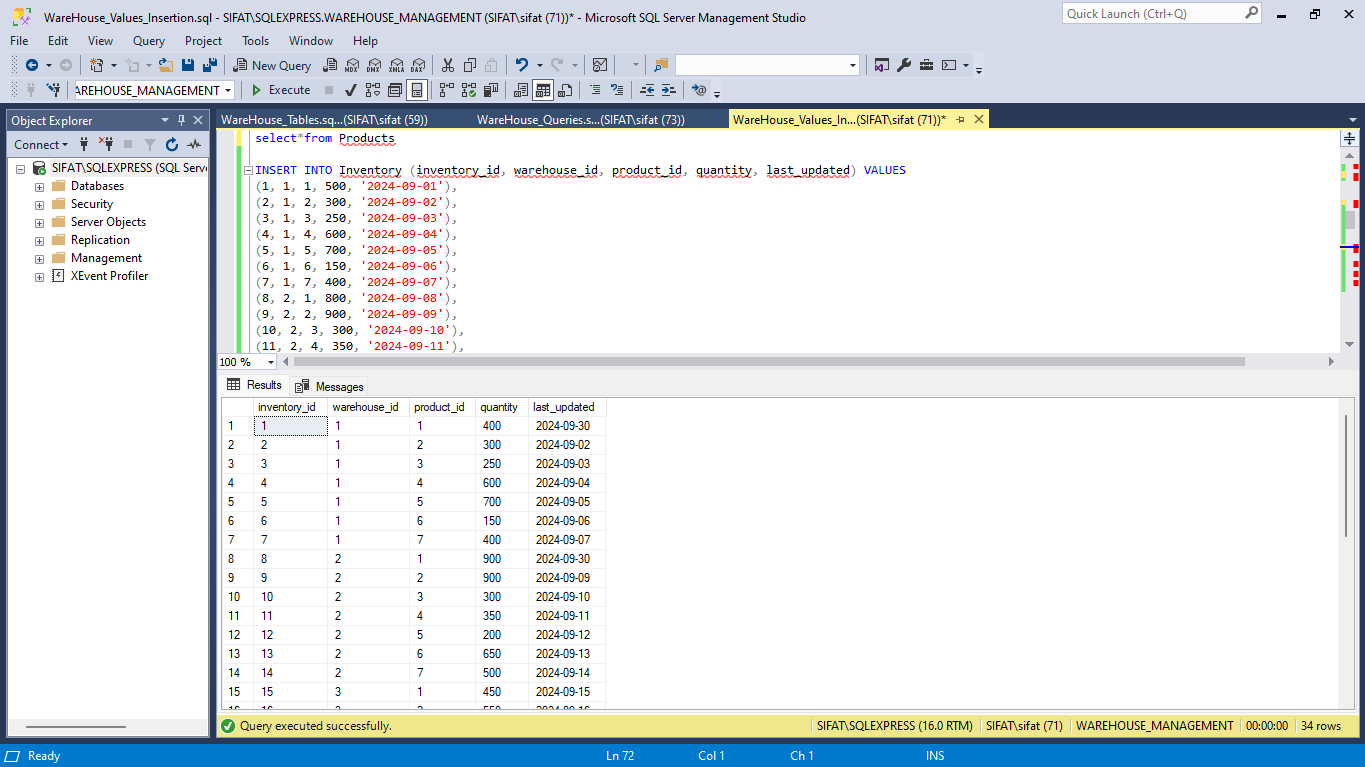
**Insert data into tables:**

**Table: Warehouses**

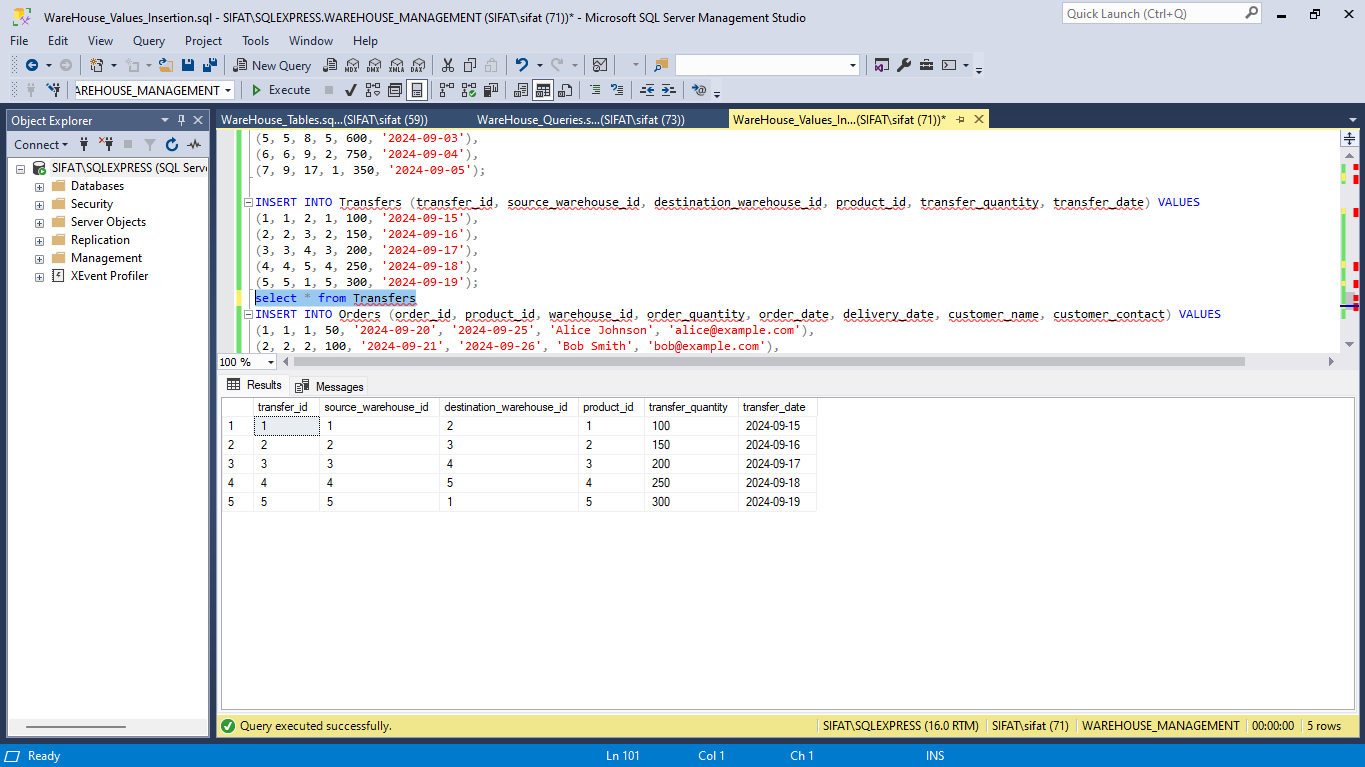
****

**Table: Products**

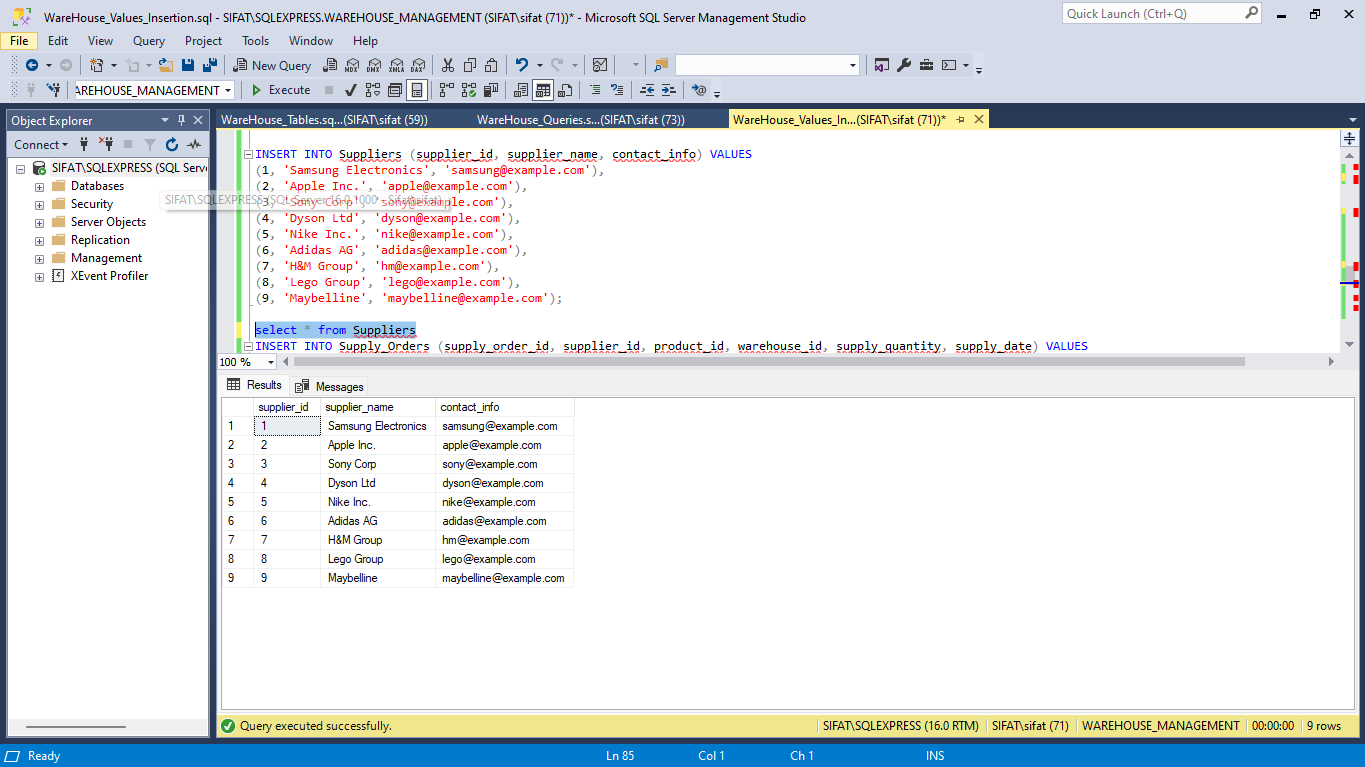
**Table: Inventory**

****

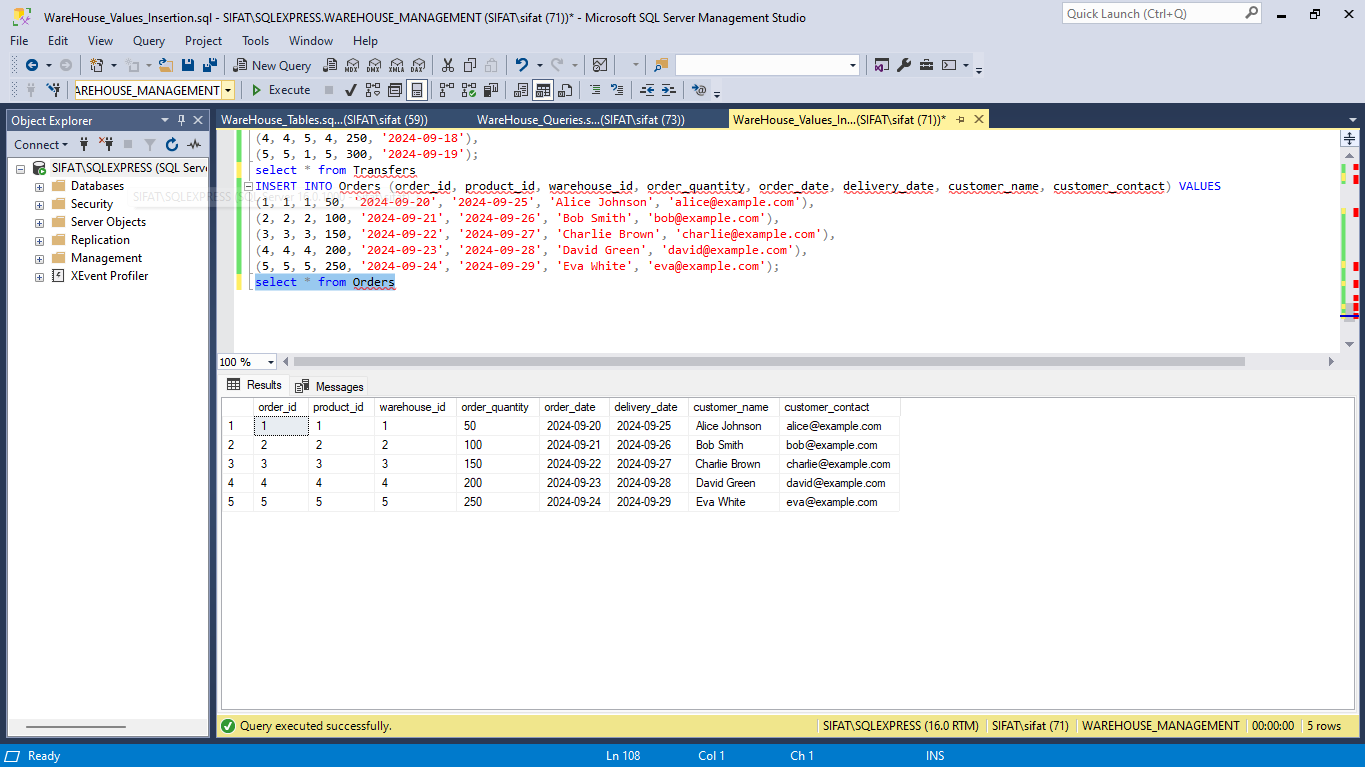
**Table: Transfers**

****

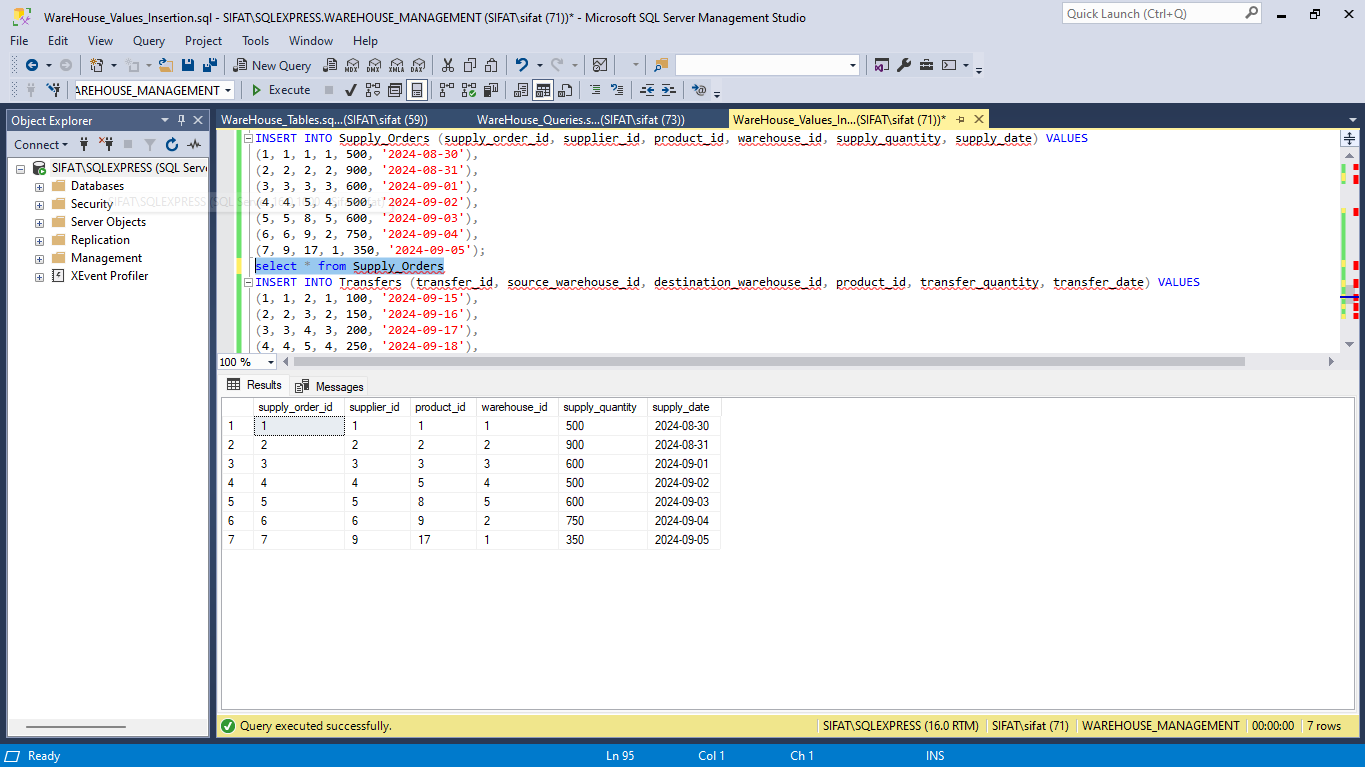
**Table: Suppliers**

****

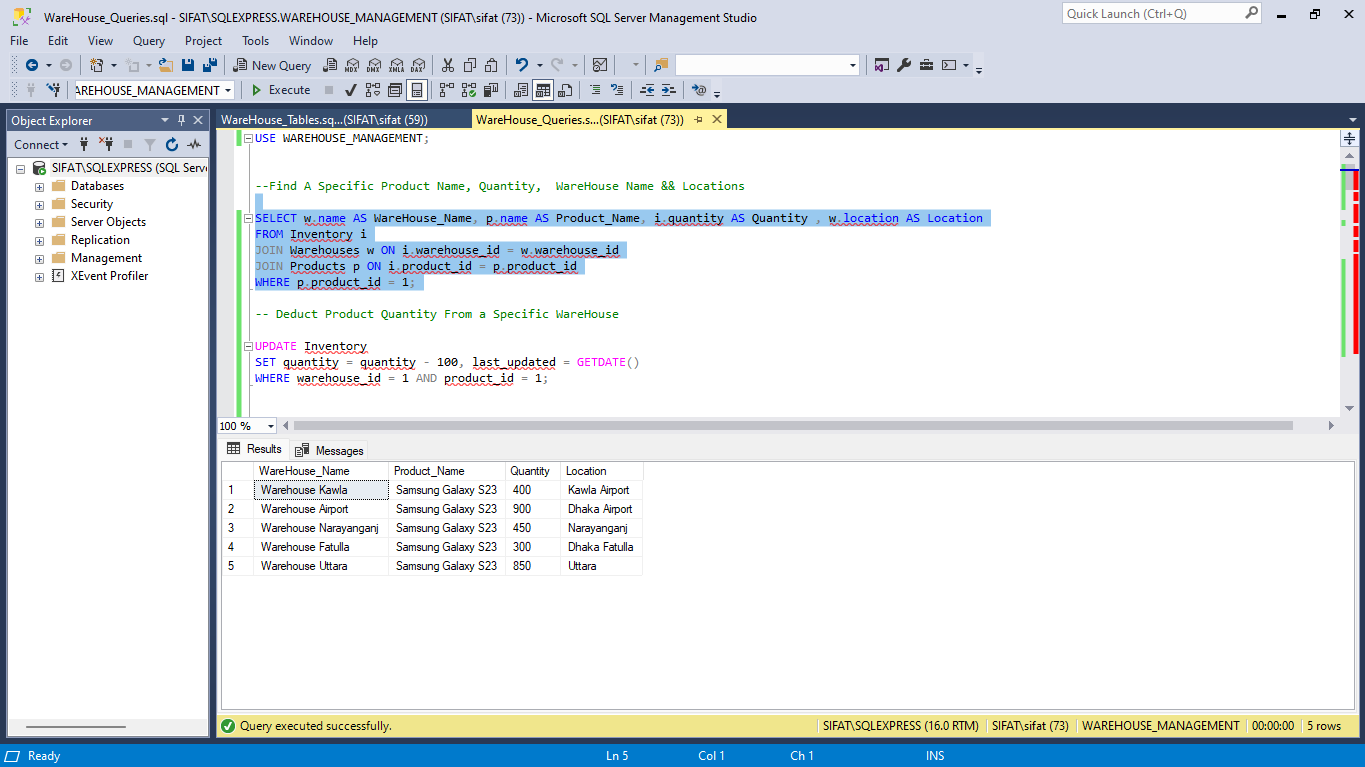
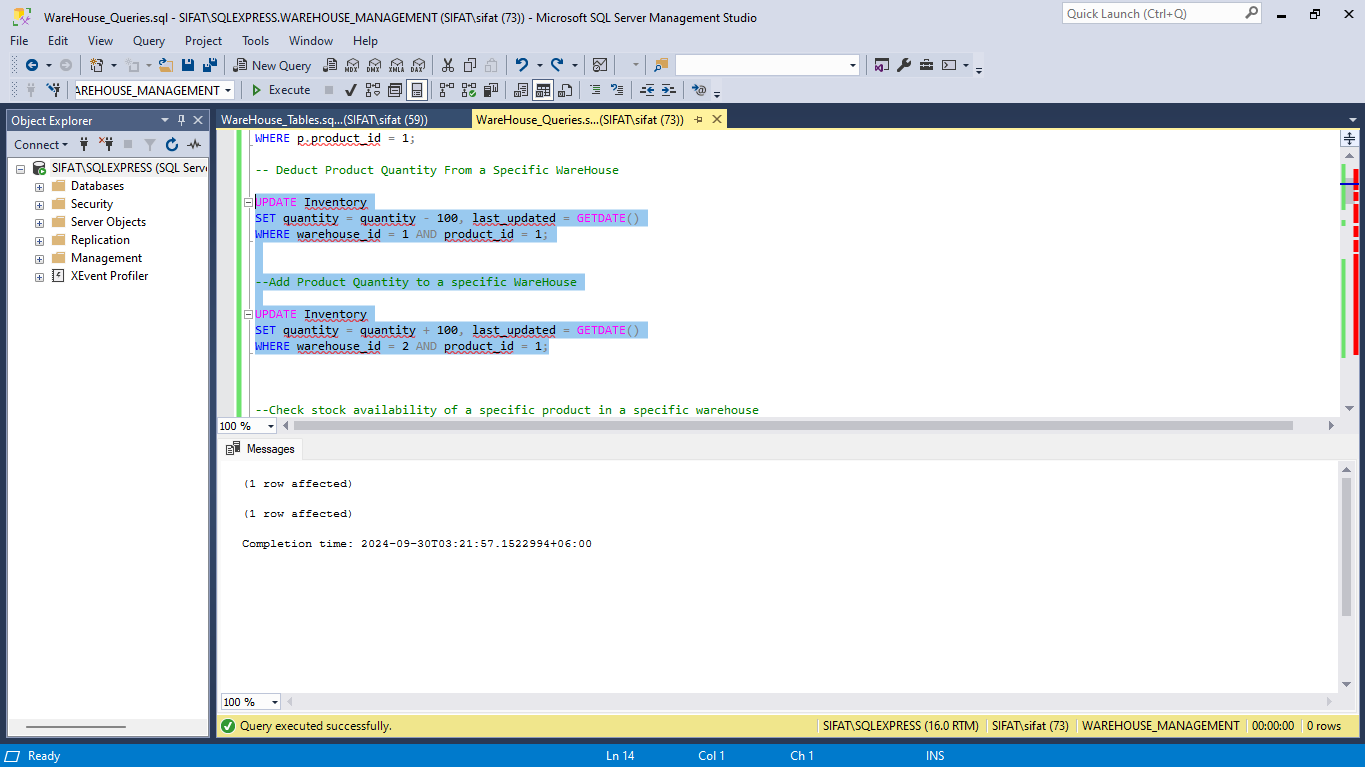
**Table: Orders**

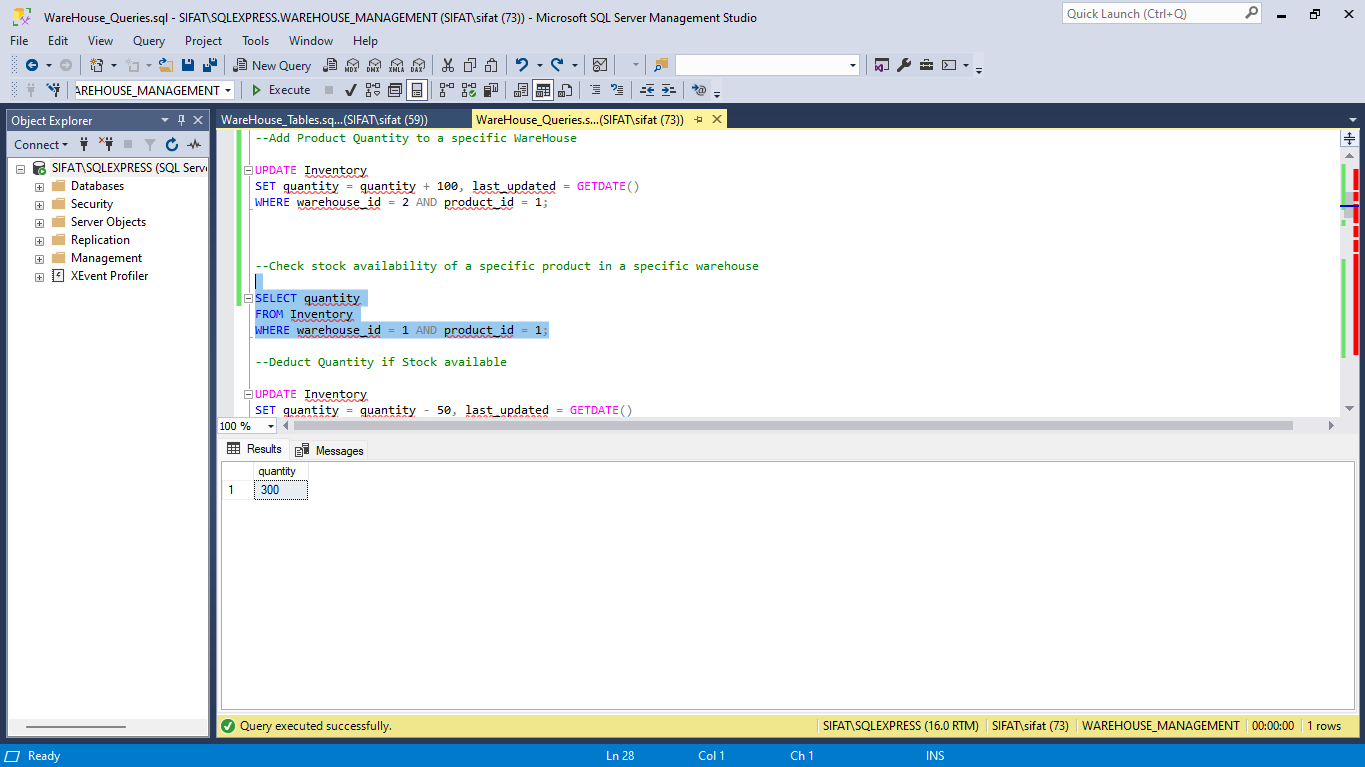
****

**Table: Suppy Orders:**

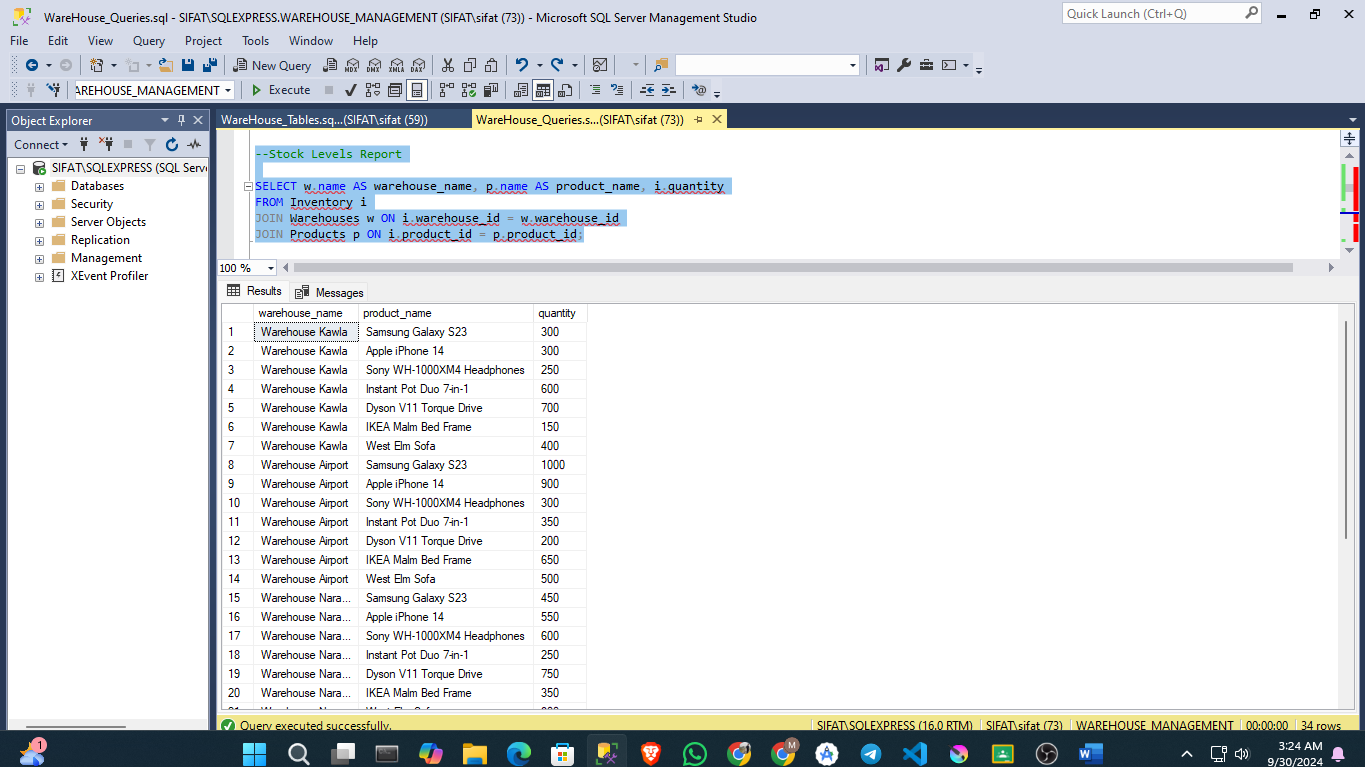
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**Running Query:**

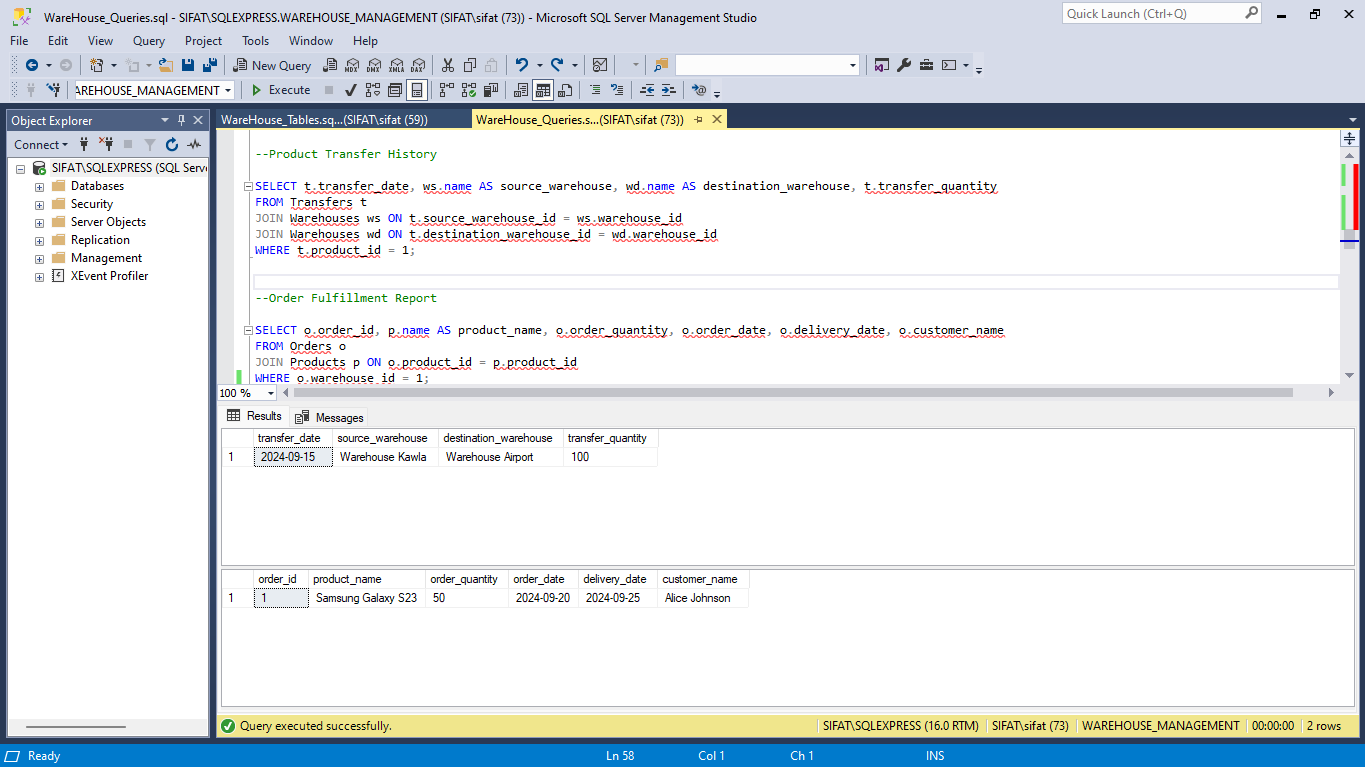
1. Find A Specific Product Name, Quantity, WareHouse Name & Locations.
2. Deduct & Add Product Quantity From a Specific WareHouse
3. Check stock availability of a specific product in a specific warehouse



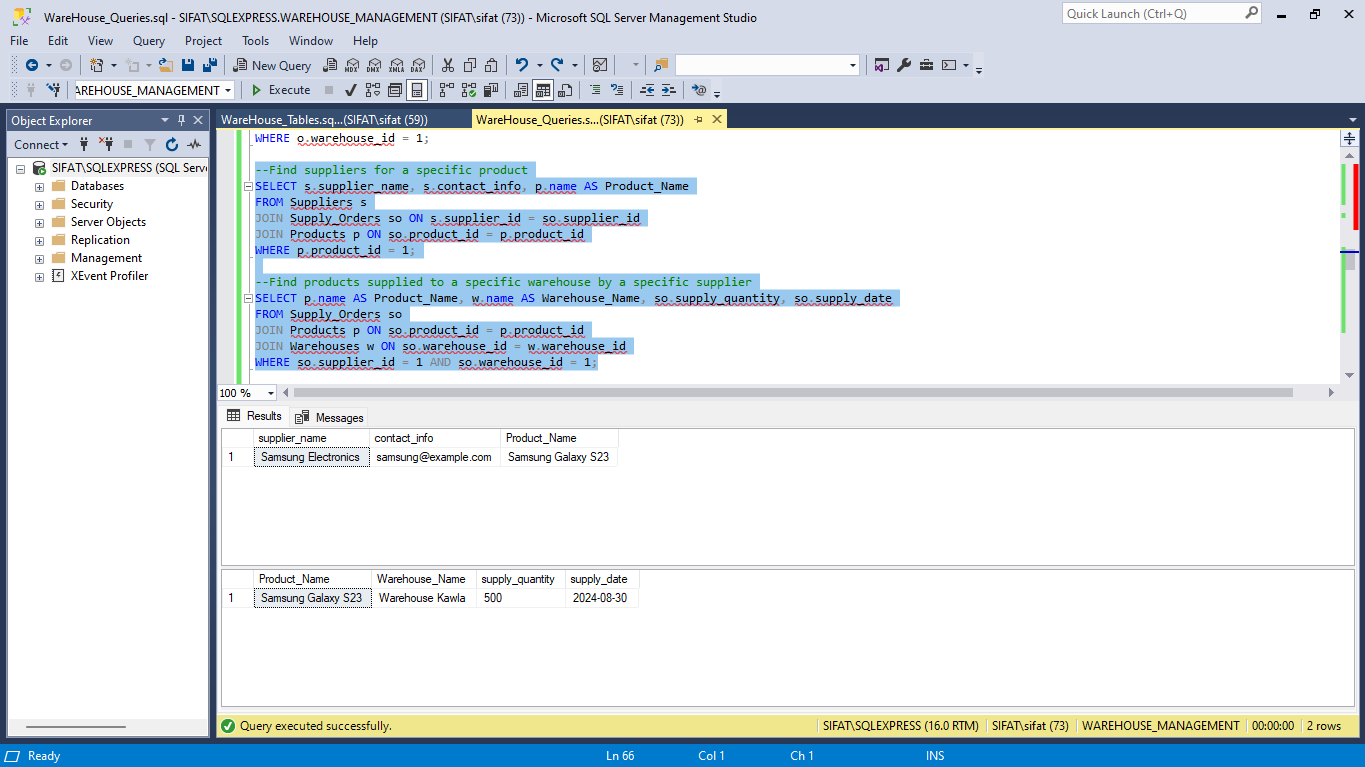
4.Stock Level Report.



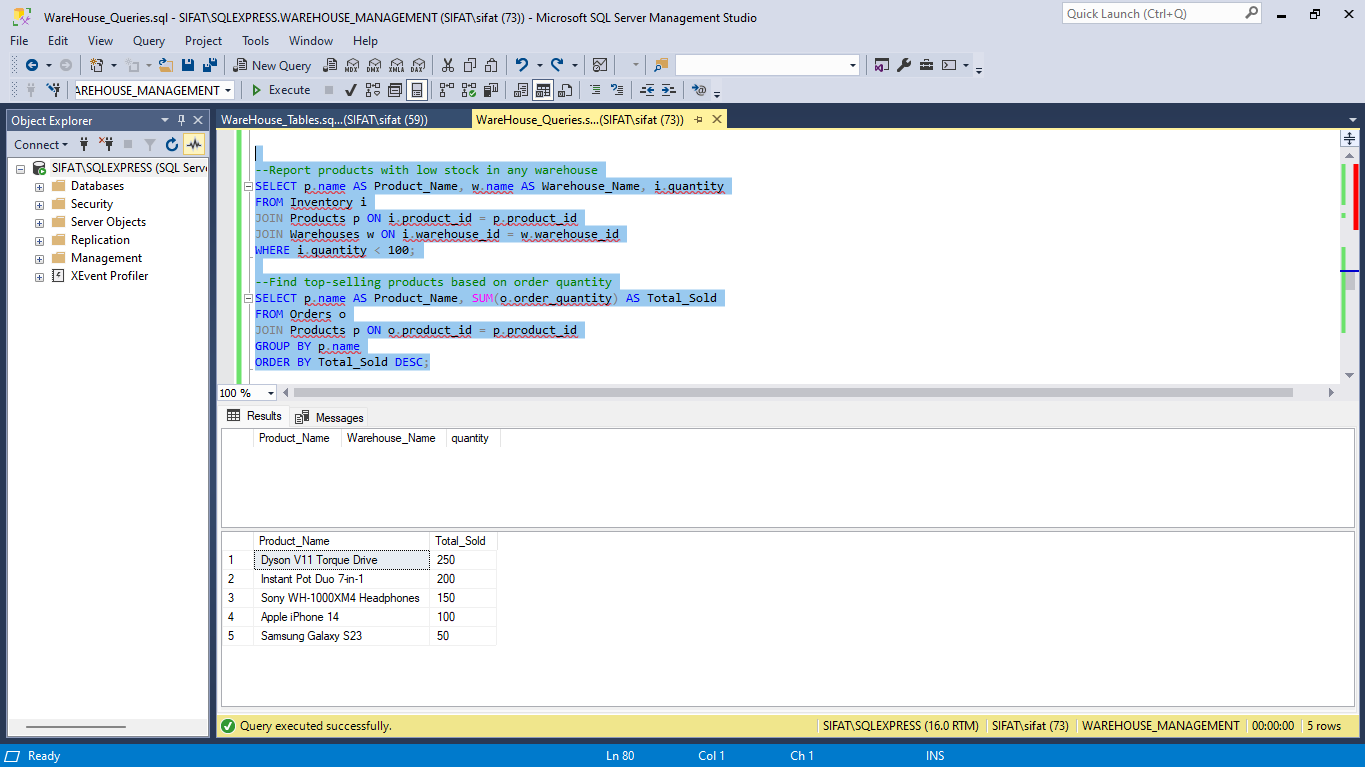
5.Product Transformation History & Fulfillment Report.



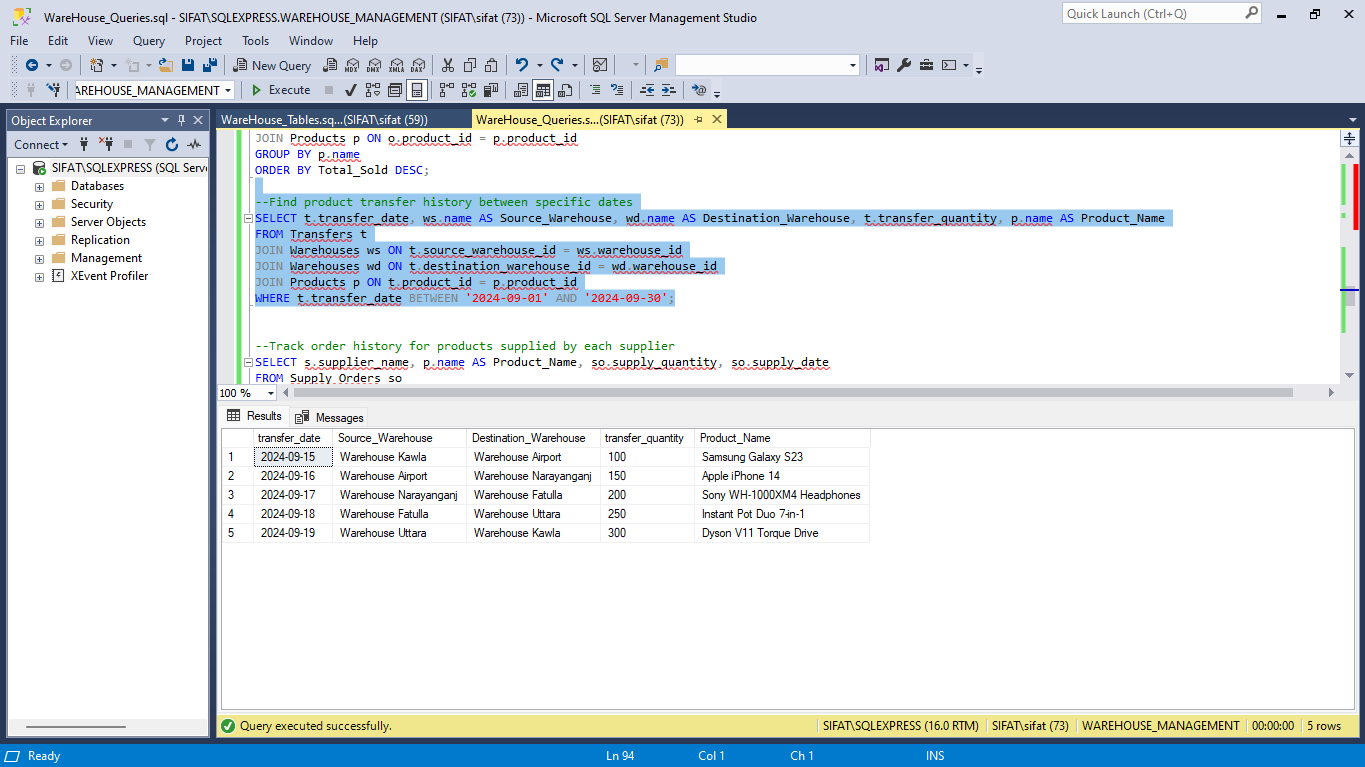
7.Find suppliers for a specific product & Find products supplied to a specific warehouse by a specific supplier.



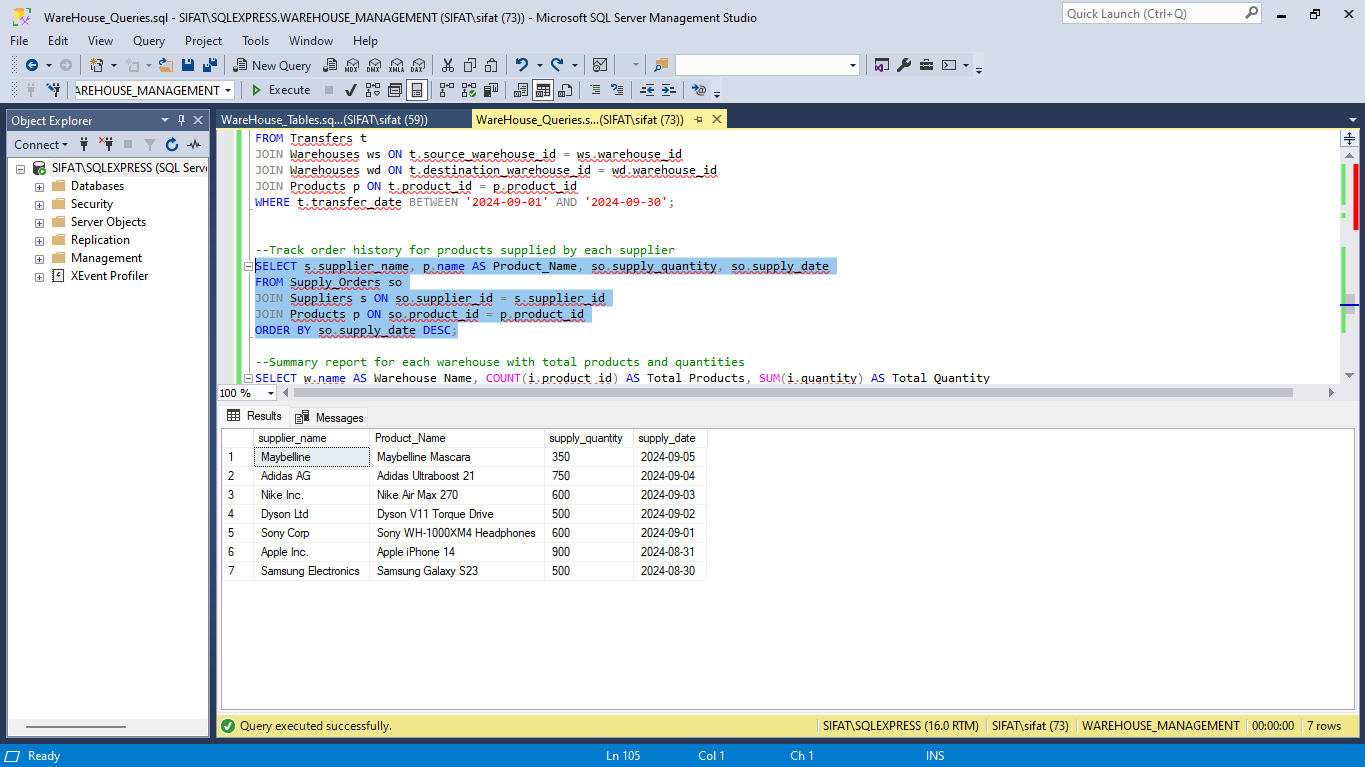
8. Report products with low stock in any warehouse & Find top-selling products based on order quantity



9. Find product transfer history between specific dates



10. Track order history for products supplied by each supplier



11. Summary report for each warehouse with total products and quantities & Calculate total value of products in each warehouse

