Great — let’s clarify the **purpose of the Manilogix project** and break down the responsibilities and flow between the roles (ADMIN, MANAGER, SUPPLIER), especially regarding **ordering and supplying items**.

**✅ Purpose of the Manilogix Project**

**Manilogix** is an enterprise-grade microservices-based inventory and order management system designed to:

* Efficiently manage **inventory items**, **supplier contracts**, **orders**, and **notifications**
* Allow **role-based access** for managing business operations
* Support real-time validation and inter-service communication using secure tokens

**🎯 Real-World Scenario (Use Case)**

This system is intended for companies or organizations managing inventory **supplied by third-party suppliers** or internal staff. Orders can be placed by managers (or other suppliers, if allowed), and suppliers fulfill them by supplying or restocking the requested items.

**🧩 Role Responsibilities and Workflow**

**🔵 ADMIN**

**Role Purpose**:

* Top-level system manager with complete access

**Can Do**:

* Onboard suppliers
* View and manage all users
* Delete or modify inventory records
* View and monitor all orders
* Access and manage notifications
* View system-wide dashboards

**🟢 MANAGER**

**Role Purpose**:

* Oversees day-to-day operations like stock levels and order fulfillment

**Can Do**:

* View inventory stock
* Place orders for items that are low in stock
* Track supplier performance
* Update order statuses
* Get reports on stock trends or order delays

**Flow**:

1. Manager sees low stock (e.g., 5 chairs left).
2. Places an order using OrderController.
3. Supplier receives notification and fulfills it.
4. Inventory is updated.

**🟠 SUPPLIER**

**Role Purpose**:

* Supplies physical inventory based on orders

**Can Do**:

* Add, update, or delete their own inventory items
* Receive and fulfill orders
* View their own orders
* Get notifications about orders or updates

**Flow**:

1. Receives an order from a Manager or System
2. Prepares and supplies the item
3. Updates inventory accordingly
4. Marks order status as fulfilled

**❓ Can a Supplier Order from Another Supplier?**

❌ **By default, NO**.

In the current structure:

* **SUPPLIERS only fulfill orders**.
* Only **MANAGERS or ADMINs** place orders.

However, you **can extend the system** if your business logic requires that:

* One supplier runs out of stock and orders from another supplier
* You introduce a **"Sub-Supplier"** role
* You allow **internal transfer requests** between suppliers

This would require:

1. New controller method: placeSupplierOrder(SupplierToSupplierOrderRequest)
2. Restrict access to this API via role SUPPLIER
3. A way to record which supplier ordered and which supplier fulfilled

**🔄 Example Use Case Flow (With Roles)**

1. Manager logs in

2. Views dashboard → sees inventory low

3. Creates an order for 100 chairs

4. Supplier receives notification

5. Supplier adds item to inventory and updates order status

6. Admin oversees everything from dashboards and reports

**🔧 Want Supplier-to-Supplier Ordering?**

If you want to **enable suppliers to order from each other**, let me know — I can help you:

* Design the request/response DTOs
* Add APIs and permissions
* Update roles and flows accordingly

Would you like me to prepare a **.docx file** with this flow and role summary as well?