let's role-play this as if I'm your **retail business client** explaining the business logic to your consultancy team. I'll describe how I, as the business owner, see the world, and from that you can infer the attributes and relationships for your data model.

🛒 Business Logic (Retail Owner's Perspective)

1. Customers

- Customers are the people who place orders with us.
- Each customer has identifying details: ID, name, contact info, address (street, city, maybe phone/email).
- A customer can place **many orders** over time.
  👉 Relationship: **Customer 1 : M Orders**

2. Orders

- An order is a transaction placed by a customer.
- Each order has:
  - Order ID
  - Order date
  - Customer reference (who placed it)
  - Shipper reference (who delivers it)
  - Employee reference (who processed it)
- An order can contain **many products**, and each product can appear in many orders.
  👉 Relationship: **Orders M : N Products** (resolved via **Order_Details**)

3. Order_Details

- This is the line-item table that breaks down each order.
- Attributes:
  - Order ID (FK)
  - Product ID (FK)
  - Quantity
  - Unit price
  - Discount (if applicable)

- Composite primary key = (OrderID, ProductID).
- This resolves the many-to-many between Orders and Products.

4. Products

- Products are the items we sell.
- Each product has:
  - Product ID
  - Product name
  - Unit price
  - Stock quantity
  - Category reference (what type of product it is)
- A product can be supplied by multiple suppliers.
  👉 Relationship: **Products M : N Suppliers** (resolved via Supply table).

5. Categories

- Categories group products into logical types (e.g., Beverages, Electronics, Clothing).
- Each category has:
  - Category ID
  - Category name
  - Description
- One category can have many products.
  👉 Relationship: **Category 1 : M Products**

6. Suppliers

- Suppliers are the companies that provide us with products.
- Each supplier has:
  - Supplier ID
  - Supplier name
  - Contact info (address, phone, email)
- A supplier can supply many products, and a product can come from many suppliers.
  👉 Relationship: **Suppliers M : N Products** (via Supply).

7. Supply (junction table)

- Tracks which supplier provides which product.
- Attributes:
  - Supplier ID (FK)
  - Product ID (FK)
  - Supply date (when the product was last supplied)
- Composite PK = (SupplierID, ProductID).

8. Shippers

- Shippers are the delivery companies we contract with.
- Each shipper has:
  - Shipper ID
  - Shipper name
  - Contact info
- One shipper can deliver many orders.
  👉 Relationship: **Shipper 1 : M Orders**

9. Employees

- Employees are our staff who handle orders.
- Each employee has:
  - Employee ID
  - Name
  - Job title
  - Contact info
- An employee can process many orders.
  👉 Relationship: **Employee 1 : M Orders**

🔗 Relationship Summary

- **Customer 1 : M Orders**
- **Order 1 : M Order_Details**

- **Product 1 : M Order_Details** (via junction)
- **Category 1 : M Products**
- **Supplier M : N Products** (via Supply)
- **Shipper 1 : M Orders**
- **Employee 1 : M Orders**

✅ This is the **business logic blueprint**: it tells you what attributes matter to me as the business owner and how the entities connect. From here, you can refine your schema (like you started with Customers, Orders, Shippers, Products, Suppliers, Supply) and add the missing pieces (Employees, Categories, Order_Details).