

To develop a relational database system for Global Super Store, we need to identify the entities and their relationships based on the requirements of the business. Here's a simplified schema for the relational database system:

### 1. **Entities:**

- **Customers:** Stores information about customers, including their unique identifier, name, contact details, and demographic information.
- **Products:** Contains details about the products sold by the store, such as product ID, name, category, description, price, and quantity in stock.
- **Orders:** Stores information about customer orders, including order ID, customer ID, order date, shipping address, and total amount.
- **Order Items:** Represents the individual items within each order, including the product ID, quantity, and unit price.
- **Employees:** Contains details about store employees, such as employee ID, name, role, department, and contact information.
- **Suppliers:** Stores information about product suppliers, including supplier ID, name, contact details, and product catalog.

### 2. **Relationships:**

- **Customers-Orders Relationship:** One-to-Many relationship, as each customer can place multiple orders, but each order is placed by only one customer.
- **Orders-OrderItems Relationship:** One-to-Many relationship, as each order can contain multiple order items, but each order item belongs to only one order.
- **Products-OrderItems Relationship:** One-to-Many relationship, as each product can appear in multiple order items, but each order item corresponds to only one product.
- **Employees-Orders Relationship:** One-to-Many relationship, as each employee can handle multiple orders, but each order is handled by only one employee.
- **Suppliers-Products Relationship:** One-to-Many relationship, as each supplier can supply multiple products, but each product is supplied by only one supplier.

### 3. **Tables:**

- **Customers** (customer\_id, name, email, phone, address, city, state, country, postal\_code)
- **Products** (product\_id, name, category, description, price, quantity\_in\_stock)
- **Orders** (order\_id, customer\_id, order\_date, shipping\_address, total\_amount)
- **OrderItems** (order\_item\_id, order\_id, product\_id, quantity, unit\_price)
- **Employees** (employee\_id, name, role, department, email, phone)
- **Suppliers** (supplier\_id, name, contact\_person, email, phone)

#### 4. **\*\*Constraints:\*\***

- Primary keys: customer\_id, product\_id, order\_id, order\_item\_id, employee\_id, supplier\_id
- Foreign keys: customer\_id (References Customers), product\_id (References Products), order\_id (References Orders), order\_item\_id (References OrderItems), employee\_id (References Employees), supplier\_id (References Suppliers)

This schema provides a basic structure for the relational database system of Global Super Store, allowing for the storage and retrieval of essential information related to customers, products, orders, employees, and suppliers. Additional tables and fields can be added as needed to accommodate more complex requirements and business processes.