

# ERD

## Entities:

### 1. Products

- SKU (pk)
- manufacturer\_id (fk)
- product\_name
- description
- stock\_quantity
- unit\_price
- inventory\_id (fk)
- order\_id (fk)
- category\_id (fk)

### 2. Categories

- category\_id (pk)
- category\_name
- brand

### 3. Inventory

- inventory\_id (pk)
- quantity\_available
- minimum\_stock\_level
- maximum\_stock\_level
- reorder\_point
- location\_id (fk)
- manager\_id (fk)

### 4. Warehouse

- warehouse\_id (pk)
- location\_id (fk)
- capacity
- manager\_id (fk)

### 5. Manufacturers

- manufacturer\_id (pk)
- manufacturer\_name
- phone\_number

- email

## **6. Orders**

- order\_id (pk)
- order\_date
- SKU (fk)
- quantity
- shipment\_id (fk)
- retailer\_id (fk)
- employee\_id (Note: None by default)
- payment\_id (fk)
- order\_status (Note: Pending, Approved, Success, Declined) (Pending by default)

## **7. Payments**

- payment\_id (pk)
- order\_id (fk)
- payment\_method
- Payment\_date
- Payment\_amount

## **8. Shipments**

- shipment\_id (pk)
- order\_id (fk)
- shipment\_address
- shipment\_date
- arrival\_date
- shipment\_status (Note: Pending, Approved, Shipped, Delivered)
- employee\_id (fk)
- retailer\_id (fk)

## **9. Retailers**

- retailer\_id (pk)
- first\_name
- last\_name
- phone\_number
- email
- location\_id (fk)

## **10. Locations**

- location\_id (pk)
- location\_name
- city
- postal\_code

## **11. Employees**

- employee\_id (pk)
- first\_name
- last\_name
- phone\_number
- email
- job\_id (fk)
- salary
- hire\_date
- department\_id (fk)

## **12. Managers**

- manager\_id (pk)
- manager\_name
- job\_id (fk)

## **13. Departments**

- department\_id (pk)
- department\_name
- location\_id (fk)
- manager\_id (fk)

## **14. Jobs**

- job\_id (pk)
- job\_name
- department\_id (fk)

## Relationships:

- Products.category\_id (fk) -> Categories.category\_id (pk)
- Products.manufacturer\_id (fk) -> Manufacturers.manufacturer\_id (pk)
- Inventory.inventory\_id (pk) -> Products.SKU (fk), Warehouse.warehouse\_id (fk)
- Warehouse.location\_id (fk) -> Locations.location\_id (pk)
- Orders.SKU (fk) -> Products.SKU (pk)
- Orders.shipment\_id (fk) -> Shipments.shipment\_id (pk)
- Orders.retailer\_id (fk) -> Retailers.retailer\_id (pk)
- Payments.order\_id (fk) -> Orders.order\_id (pk)
- Shipments.order\_id (fk) -> Orders.order\_id (pk)
- Shipments.employee\_id (fk) -> Employees.employee\_id (pk)
- Retailers.location\_id (fk) -> Locations.location\_id (pk)
- Employees.job\_id (fk) -> Jobs.job\_id (pk)
- Departments.location\_id (fk) -> Locations.location\_id (pk)
- Departments.manager\_id (fk) -> Employees.employee\_id (pk)
- Jobs.department\_id (fk) -> Departments.department\_id (pk)