

## Relational Schema

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- Rule1) Strong Entity

**Customers** (Customer\_ID, Custmr\_First\_Name, Custmr\_Last\_Name, Customer\_Phone#, Customer\_Email, Order\_History, Payment\_Total, Paid\_Total, Balance)

**Customer\_Delivery\_Address** (Customer\_ID, cDA\_Line\_One, cDA\_Line\_Two, DA\_City, cDA\_State, cDA\_Zipcode)

**Credit\_Card** (Card\_Number, Card\_Owner\_Name, Card\_Expire\_Date, Card\_CVV, CBA\_Line\_One, CBA\_Line\_Two, CBA\_City, CBA\_State, CBA\_Zipcode)

**Order** (Order\_ID, Customer\_ID, Payment\_Card\_Number, Ordering\_Total, Status)

**Staff** (Staff\_ID, Stf\_First\_Name, Stf\_Last\_Name, sDA\_Line\_One, sDA\_Line\_Two, sDA\_City, A\_State, s\_Zipcode, Staff\_Phone#, Staff\_Email, Salary, Job\_Title)

**Product** (Product\_ID, Product\_Name, Category, Size(ft^3))

**Stock** (Product\_ID, Warehouse\_ID, Item\_Quantity)

**Warehouse** (Warehouse\_ID, Warehouse\_Name, wDA\_Line\_One, wDA\_Line\_Two, wDA\_City, wDA\_State, wD A\_Zipcode, Capacity, Capacity\_Used, Capacity\_Remained)

**Product\_Price** (Product\_ID, Delivery\_State, Unit\_Price)

**Supplier** (Supplier\_ID, Name, Supplier\_Phone, Supplier\_Emai, A\_Line\_One, A\_Line\_Two, A\_City, A\_State, A\_Zipcode)

- Rule2) Weak Entity

**Supplier\_Item** (Product\_ID, Supplier\_Price)

**Order\_Item** (Product\_ID, Quantity, Unit\_Price, Subtotal)

**Order\_Item\_Warehouse\_ID** (Product\_ID, WareHouse\_ID)

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- Rule3) Relationship one-to-one

**Label**(Product ID, Category, Additional Information)  
**PaidWith**(Order ID, Customer ID, Card Number)  
**addStock**(Product ID, Warehouse ID, Staff ID, Add Date, Add Quantity,)  
**Pricing**(Product ID, Delivery State, Pricing Time, Staff ID, New Price)  
**GetPrice**(Product ID, Delieri State, GetPrice Time, Unit Price)

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• Rule4) Relationship one-to-many  
**Owns**(Customer ID, Card number)  
**Includes**(Order ID, Product ID)  
**Stores**(Product ID, Warehouse ID, Stores Time, Item Quantity)  
**Availability**(Product ID, Warehouse ID, Select Time, Item Quantity)

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• Rule5) Relationship many-to-many  
**Ordering**(Customer ID, Order ID, Staff ID)  
**Request**(Staff ID, Supplier ID, Details)  
**Supplies**(Supplier ID, Product ID, Supply Time)

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