

SQL Entity Relationship Diagram

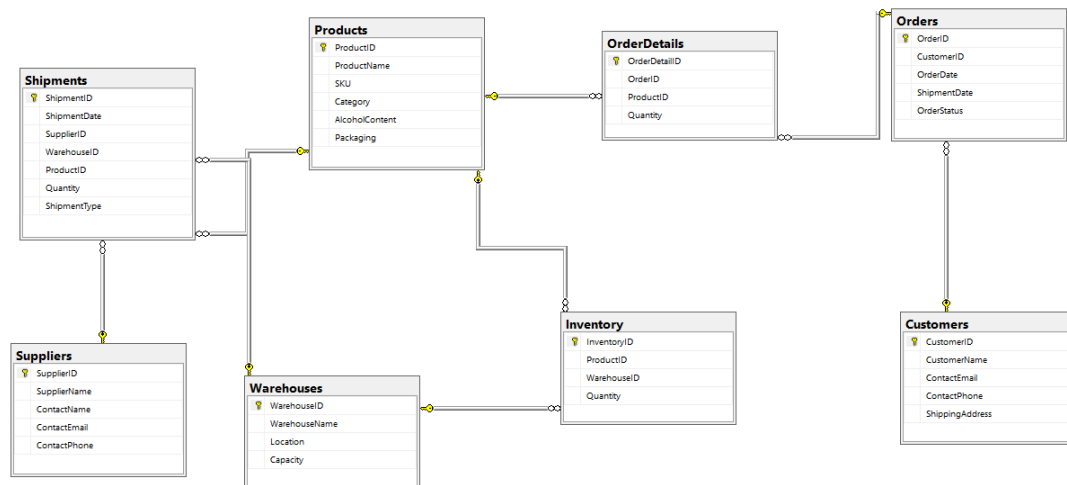


Table Generation Source Code

```
CREATE TABLE Products (  
    ProductID INT IDENTITY(1,1) PRIMARY KEY,  
    ProductName NVARCHAR(100) NOT NULL,  
    SKU NVARCHAR(50) UNIQUE NOT NULL,  
    Category NVARCHAR(50),  
    AlcoholContent DECIMAL(5, 2),  
    Packaging NVARCHAR(50)
```

```
);
```

```
CREATE TABLE Suppliers (  
    SupplierID INT IDENTITY(1,1) PRIMARY KEY,  
    SupplierName NVARCHAR(100) NOT NULL,
```

```
    ContactName NVARCHAR(100),  
    ContactEmail NVARCHAR(100),  
    ContactPhone NVARCHAR(20)  
);  
  
CREATE TABLE Warehouses (  
    WarehouseID INT IDENTITY(1,1) PRIMARY KEY,  
    WarehouseName NVARCHAR(100) NOT NULL,  
    Location NVARCHAR(100),  
    Capacity INT  
);
```

```
CREATE TABLE Customers (  
    CustomerID INT IDENTITY(1,1) PRIMARY KEY,  
    CustomerName NVARCHAR(100) NOT NULL,  
    ContactEmail NVARCHAR(100),  
    ContactPhone NVARCHAR(20),  
    ShippingAddress NVARCHAR(200)  
);
```

```
CREATE TABLE Inventory (  
    InventoryID INT IDENTITY(1,1) PRIMARY KEY,  
    ProductID INT FOREIGN KEY REFERENCES Products(ProductID),  
    WarehouseID INT FOREIGN KEY REFERENCES Warehouses(WarehouseID),  
    Quantity INT  
);
```

```
CREATE TABLE Shipments (  
    ShipmentID INT IDENTITY(1,1) PRIMARY KEY,  
    ShipmentDate DATE NOT NULL,  
    SupplierID INT FOREIGN KEY REFERENCES Suppliers(SupplierID),  
    WarehouseID INT FOREIGN KEY REFERENCES Warehouses(WarehouseID),  
    ProductID INT FOREIGN KEY REFERENCES Products(ProductID),  
    Quantity INT,  
    ShipmentType NVARCHAR(10) CHECK (ShipmentType IN ('INCOMING', 'OUTGOING'))  
    NOT NULL  
);
```

```
CREATE TABLE Orders (  
    OrderID INT IDENTITY(1,1) PRIMARY KEY,  
    CustomerID INT FOREIGN KEY REFERENCES Customers(CustomerID),  
    OrderDate DATE NOT NULL,  
    ShipmentDate DATE,  
    OrderStatus NVARCHAR(10) CHECK (OrderStatus IN ('PENDING', 'SHIPPED',  
'DELIVERED')) NOT NULL  
);
```

```
CREATE TABLE OrderDetails (  
    OrderDetailID INT IDENTITY(1,1) PRIMARY KEY,  
    OrderID INT FOREIGN KEY REFERENCES Orders(OrderID),  
    ProductID INT FOREIGN KEY REFERENCES Products(ProductID),  
    Quantity INT  
);
```

```
CREATE ROLE WarehouseManager;
```

```
CREATE ROLE Sales;
```

```
GRANT SELECT, INSERT, UPDATE, DELETE ON Inventory TO WarehouseManager;
```

```
GRANT SELECT, INSERT, UPDATE ON Orders TO Sales;
```

Query To Insert Test Data

```
INSERT INTO Products (ProductName, SKU, Category, AlcoholContent, Packaging)
VALUES ('Whiskey', 'WH123', 'Spirits', 40.00, 'Bottle'),
      ('Beer', 'BR456', 'Beer', 5.00, 'Can');
```

```
INSERT INTO Suppliers (SupplierName, ContactName, ContactEmail, ContactPhone)
VALUES ('ABC Liquor Co.', 'John Doe', 'johndoe@example.com', '555-1234'),
      ('XYZ Beverages', 'Jane Smith', 'janesmith@example.com', '555-5678');
```

```
INSERT INTO Warehouses (WarehouseName, Location, Capacity)
VALUES ('Central Warehouse', 'New York, NY', 10000),
      ('West Coast Warehouse', 'Los Angeles, CA', 8000);
```

Product Table:

```
SELECT TOP (1000) [ProductID]
, [ProductName]
, [SKU]
, [Category]
, [AlcoholContent]
, [Packaging]
FROM [Breakthru Inventory Management System].[dbo].[Products]
```

100 %

Results Messages

	ProductID	ProductName	SKU	Category	AlcoholContent	Packaging
1	1	Whiskey	WH123	Spirits	40.00	Bottle
2	2	Beer	BR456	Beer	5.00	Can

Suppliers Table:

```
SELECT TOP (1000) [SupplierID]
, [SupplierName]
, [ContactName]
, [ContactEmail]
, [ContactPhone]
FROM [Breakthru Inventory Management System].[dbo].[Suppliers]
```

%				
Results Messages				
SupplierID	SupplierName	ContactName	ContactEmail	ContactPhone
1	ABC Liquor Co.	John Doe	johndoe@example.com	555-1234
2	XYZ Beverages	Jane Smith	janesmith@example.com	555-5678

Warehouse Table:

```
SELECT TOP (1000) [WarehouseID]
, [WarehouseName]
, [Location]
, [Capacity]
FROM [Breakthru Inventory Management System].[dbo].[Warehouses]
```

1 %				
Results Messages				
WarehouseID	WarehouseName	Location	Capacity	
1	Central Warehouse	New York, NY	10000	
2	West Coast Warehouse	Los Angeles, CA	8000	