🏭 Supply Chain Management System

A relational database project designed to streamline the management of suppliers, products, warehouses, orders, inventory, and shipments. Built using MySQL, this system simulates the real-world operations of a supply chain in a structured, query-driven environment.

🗃️ Features

- **Manage Suppliers with contact details**
- **Track Products, unit prices, and associated suppliers**
- **Maintain Inventory across multiple Warehouses**
- **Monitor and query Shipments with status and delivery info**
- **Handle Orders per warehouse with product-level details**
- **Includes 20+ SQL queries for analysis, optimization, and reporting**

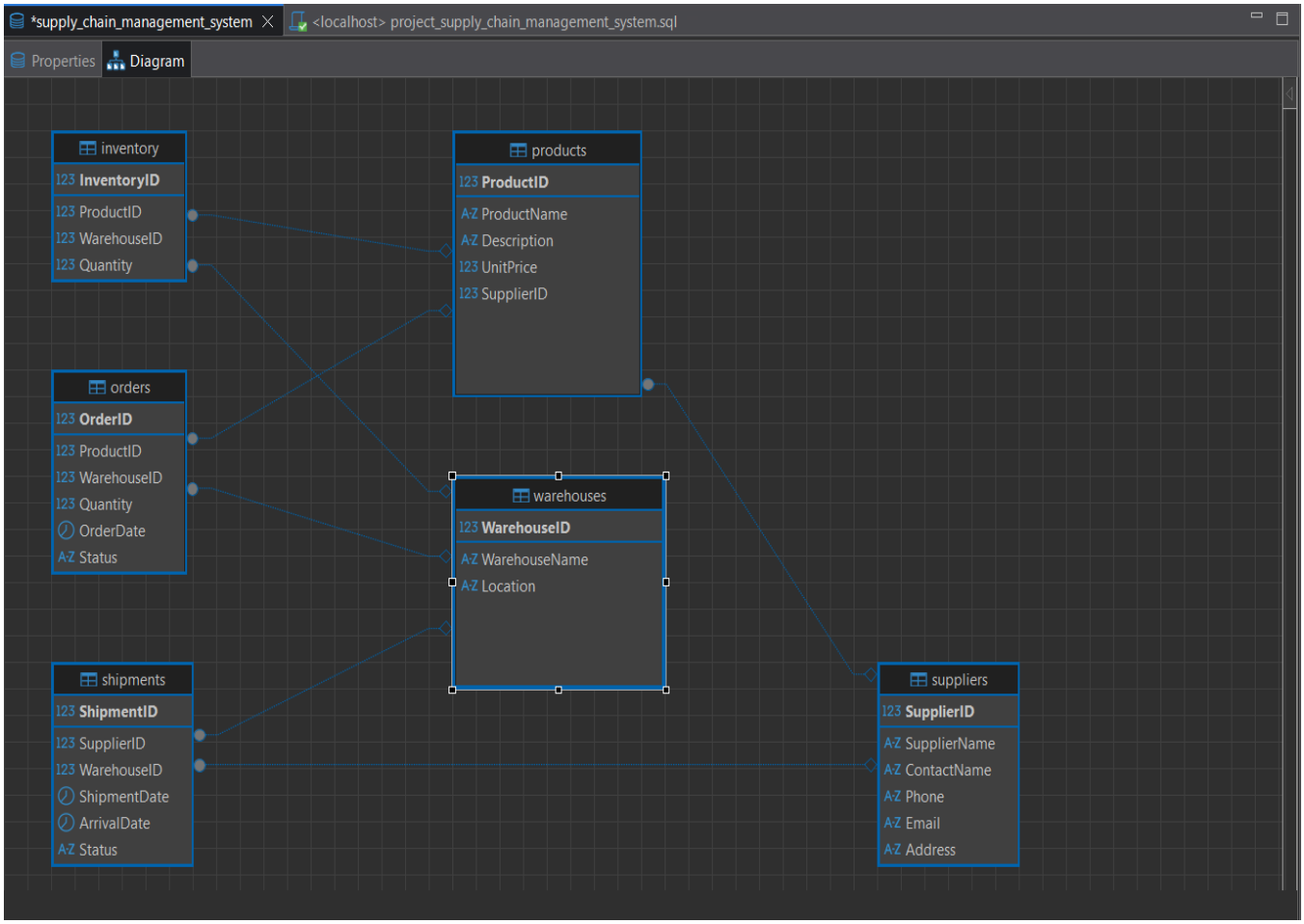
🛠️ Technologies Used

- **Database: MySQL**
- **File: project_supply_chain_management_system.sql**

📦 Database Schema Overview

- **Suppliers (SupplierID, Supplier Name, ContactName, Phone, Email, Address)**
- **Warehouses (WarehouseID, WarehouseName, Location)**
- **Products (ProductID, ProductName, Description, UnitPrice, SupplierID)**
- **Inventory (InventoryID, ProductID, WarehouseID, Quantity)**
- **Shipments (ShipmentID, SupplierID, WarehouseID, ShipmentDate, ArrivalDate, Status)**
- **Orders (OrderID, ProductID, WarehouseID, Quantity, OrderDate, Status)**

Database Diagram



How to Use

1. **Import the database:**
    - **Open your MySQL client (e.g., phpMyAdmin or MySQL Workbench)**
    - **Create the database:**

      CREATE DATABASE Supply_Chain_Management_System;

    - **Import the file: project_supply_chain_management_system.sql**
2. **Explore the schema:**
    - **Use SHOW TABLES; to see available tables**
    - **Run included queries to analyze inventory, orders, and more**

SQL Table Query screenshot

A relational database project designed to streamline the management of suppliers, products, warehouses, orders, inventory, and shipments. Built using MySQL, this system simulates the real-world operations of a supply chain in a structured, query-driven environment.

```sql
create database Supply_Chain_Management_System;
use supply_chain_Management_system;

CREATE TABLE Suppliers (
    SupplierID INT PRIMARY KEY,
    SupplierName VARCHAR(100),
    ContactName VARCHAR(100),
    Phone VARCHAR(20),
    Email VARCHAR(100),
    Address TEXT
);

CREATE TABLE Warehouses (
    WarehouseID INT PRIMARY KEY,
    WarehouseName VARCHAR(100),
    Location VARCHAR(150)
);

CREATE TABLE Products (
    ProductID INT PRIMARY KEY,
    ProductName VARCHAR(100),
    Description TEXT,
    UnitPrice DECIMAL(10, 2),
    SupplierID INT,
    FOREIGN KEY (SupplierID) REFERENCES Suppliers(SupplierID)
);

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

CREATE TABLE Shipments (
    ShipmentID INT PRIMARY KEY,
    SupplierID INT,
    WarehouseID INT,
    ShipmentDate DATE,
    ArrivalDate DATE,
    Status VARCHAR(50),
    FOREIGN KEY (SupplierID) REFERENCES Suppliers(SupplierID),
    FOREIGN KEY (WarehouseID) REFERENCES Warehouses(WarehouseID)
);

CREATE TABLE Orders (
    OrderID INT PRIMARY KEY,
    ProductID INT,
    WarehouseID INT,
    Quantity INT,
    OrderDate DATE,
    Status VARCHAR(50),
    FOREIGN KEY (ProductID) REFERENCES Products(ProductID),
    FOREIGN KEY (WarehouseID) REFERENCES Warehouses(WarehouseID)
);
```

Input Values

```
INSERT INTO Suppliers (SupplierID, SupplierName, ContactName, Phone, Email, Address) VALUES
(1, 'Stark Inc', 'Kevin Rodriguez', '257-276-9787', 'blake45@example.com', '04034 Fuller Extension, Adamsstad, FL 11523'),
(2, 'Klein-Klein', 'Amanda Miller', '964.778.5271', 'jones.amy@example.org', '5793 George Expressway, New Derekfort, AR 12085'),
(3, 'Parker Group', 'James Young', '983.582.7414', 'christinegreer@example.org', '336 Monica Lake Suite 168, Port Andreafurt, MO 21592'),
(4, 'Watson Inc', 'Andrew Anderson', '888-216-1192x2701', 'hansenmegan@example.com', '8725 Frederick Parkway, South Jason, KY 25317'),
(5, 'Howard-Boyd', 'Elizabeth Nelson', '(313)213-9073', 'ramirezsteven@example.org', '89251 Kristin Road, East Julie, IL 66500'),
(6, 'Ramos, Campbell and Vargas', 'Samantha Miller', '786-929-0557', 'jonesscott@example.org', '1693 Clark Stream, Port Jordanview, MS 00461'),
(7, 'Kennedy Group', 'Stephanie Flores', '939.451.6824x7066', 'grahambryan@example.net', '20146 Matthew Tunnel Suite 264, New Victor, NC 00253'),
(8, 'Walton Inc', 'David Gonzalez', '(902)375-3644x278', 'angelicacantu@example.com', '0275 John Fords, West Brittany, KS 62540'),
(9, 'Douglas and Sons', 'Daniel Anderson', '192.086.6247x080', 'christinerojas@example.org', '18383 Cynthia Isle Apt. 478, East Jessicaville, MI 73659'),
(10, 'Nguyen PLC', 'Jennifer Smith', '241-603-2514', 'rwillis@example.net', '8223 Freeman Landing, South Craigborough, MA 92064'),
(11, 'Gonzalez LLC', 'Rachel Carter', '814.487.9680', 'twhite@example.org', '38059 Michael Village, Lake Amandaberg, TN 41232'),
(12, 'Nelson LLC', 'Thomas Garcia', '630-012-1462x9185', 'ricemargaret@example.com', '23766 Cheryl Coves, New Gregorymouth, OK 88426'),
(13, 'Mendoza, Parker and Wilson', 'Brian Clark', '(853)078-9529', 'stevensmarcus@example.net', '94925 James Views, Lake Justinland, GA 01400'),
(14, 'Sullivan Ltd', 'Christina Johnson', '662.348.3960', 'rbarnes@example.net', '61616 Stone Pines Apt. 298, Lake Lisa, LA 28046'),
(15, 'Gomez and Sons', 'Rebecca Thomas', '034-264-8475', 'martindeborah@example.org', '87878 Pacheco Roads Suite 655, South Richardville, TX 36898'),
(16, 'Barnes, King and Grant', 'Jeffrey Davis', '(351)880-6945', 'ryan79@example.com', '81265 Stanley Creek Suite 716, North Rebeccafurt, WY 93284'),
(17, 'Walsh-Jones', 'Anthony Adams', '850-079-1804', 'josephmoore@example.org', '50237 Duffy Shore Apt. 387, Hernandezborough, SC 75426'),
(18, 'Fields, Harris and Lambert', 'Nicholas Lee', '(592)496-0971x3423', 'kennethrobinson@example.net', '46936 Williams Walk Suite 288, Port Scottburgh, ID 812
(19, 'Ramirez, May and Lambert', 'Ashley Scott', '312.670.9616', 'darren73@example.net', '60158 Snyder Village Apt. 559, South Leah, NV 62007'),
(20, 'Brady, Stevens and Harris', 'Jessica Martinez', '(681)356-2754', 'michael24@example.com', '2311 Fisher Street, Port Brianshire, ND 10894');
```

```
INSERT INTO Warehouses (WarehouseID, WarehouseName, Location) VALUES
(1, 'Lake John Warehouse', 'East Zacharyport, United States'),
(2, 'West Brittany Warehouse', 'East Amanda, United States'),
(3, 'New Sarah Warehouse', 'Port Tiffany, United States'),
(4, 'Port Lindsay Warehouse', 'West Ryan, United States'),
(5, 'Port Tanya Warehouse', 'Port Crystalfort, United States'),
(6, 'Port Donald Warehouse', 'Port Rodney, United States'),
(7, 'Port Matthew Warehouse', 'South Victor, United States'),
(8, 'Lake Andrew Warehouse', 'Port Daniel, United States'),
(9, 'North Scott Warehouse', 'Lake Amanda, United States'),
(10, 'South Brian Warehouse', 'North Crystalton, United States'),
(11, 'Lake Bryan Warehouse', 'West Dana, United States'),
(12, 'New Randy Warehouse', 'Lake Robin, United States'),
(13, 'South Lawrence Warehouse', 'Lake Denise, United States'),
(14, 'New Craig Warehouse', 'Lake Randall, United States'),
(15, 'South Richard Warehouse', 'Port Matthew, United States'),
(16, 'Lake Todd Warehouse', 'East Christopherbury, United States'),
(17, 'West Christine Warehouse', 'Port Monica, United States'),
(18, 'Lake Daniel Warehouse', 'North Natalie, United States'),
(19, 'Lake Sharon Warehouse', 'South Brittany, United States'),
(20, 'Lake Natasha Warehouse', 'Port Sarahville, United States');
```

```
INSERT INTO Products (ProductID, ProductName, Description, UnitPrice, SupplierID) VALUES
(1, 'Chair Azure', 'Decide impact assume local difficult direction.', 25.34, 5),
(2, 'Lamp Pink', 'Smile whom suddenly prepare trouble something.', 49.91, 13),
(3, 'Bottle Gold', 'Black wear sign chance vote color price.', 32.54, 18),
(4, 'Table Turquoise', 'Strong mission laugh Mrs. forward another.', 63.27, 7),
(5, 'Desk Lime', 'Debate general recent appear method.', 91.72, 2),
(6, 'Book Blue', 'Democratic color power either maybe responsibility.', 53.49, 10),
(7, 'Phone Olive', 'Leader light father pick sport.', 42.11, 4),
(8, 'Bag Maroon', 'Commercial want discover while resource.', 68.04, 16),
(9, 'Shoe Silver', 'Age shake school blue position guess.', 26.8, 11),
(10, 'Watch Teal', 'Notice house film apply.', 38.45, 6),
(11, 'Glasses Red', 'Score hospital property sit yourself.', 54.33, 8),
(12, 'Pen Cyan', 'Grow artist return society rather.', 46.79, 19),
(13, 'Pillow Indigo', 'Lawyer kitchen decide reality.', 84.25, 9),
(14, 'Notebook White', 'Million stop according before.', 22.91, 14),
(15, 'Fan Purple', 'Actually oil wish risk friend.', 96.18, 17),
(16, 'Bottle Lavender', 'Suddenly participant sometimes avoid.', 40.26, 12),
(17, 'Mirror Plum', 'Visit behind join although herself.', 79.02, 3),
(18, 'Shelf Fuchsia', 'Protect tonight season different teacher.', 36.13, 15),
(19, 'Clock Bronze', 'Drive difference edge individual.', 72.3, 20),
(20, 'Tablet Beige', 'Outside among class wind include.', 65.08, 1);
```

```sql
INSERT INTO Inventory (InventoryID, ProductID, WarehouseID, Quantity) VALUES
(1, 5, 1, 299),
(2, 14, 9, 364),
(3, 12, 6, 222),
(4, 1, 14, 413),
(5, 8, 11, 118),
(6, 10, 3, 137),
(7, 20, 17, 351),
(8, 13, 2, 197),
(9, 4, 15, 229),
(10, 3, 7, 278),
(11, 11, 4, 424),
(12, 18, 8, 108),
(13, 17, 13, 496),
(14, 9, 20, 273),
(15, 6, 5, 144),
(16, 15, 10, 182),
(17, 2, 16, 327),
(18, 16, 12, 483),
(19, 7, 19, 92),
(20, 19, 18, 159);
```

```sql
INSERT INTO Shipments (ShipmentID, SupplierID, WarehouseID, ShipmentDate, ArrivalDate, Status) VALUES
(1, 9, 3, '2024-06-11', '2024-06-16', 'Delivered'),
(2, 14, 5, '2024-06-06', '2024-06-09', 'Shipped'),
(3, 6, 17, '2024-06-18', '2024-06-22', 'Pending'),
(4, 2, 10, '2024-06-12', '2024-06-16', 'Cancelled'),
(5, 1, 1, '2024-06-07', '2024-06-13', 'Pending'),
(6, 19, 4, '2024-06-09', '2024-06-14', 'Delivered'),
(7, 11, 7, '2024-06-14', '2024-06-20', 'Shipped'),
(8, 4, 8, '2024-06-26', '2024-07-02', 'Pending'),
(9, 10, 6, '2024-06-17', '2024-06-21', 'Shipped'),
(10, 13, 12, '2024-06-08', '2024-06-13', 'Cancelled'),
(11, 7, 2, '2024-06-21', '2024-06-26', 'Shipped'),
(12, 16, 11, '2024-06-19', '2024-06-25', 'Delivered'),
(13, 3, 13, '2024-06-16', '2024-06-22', 'Pending'),
(14, 17, 9, '2024-06-05', '2024-06-10', 'Cancelled'),
(15, 5, 15, '2024-06-10', '2024-06-12', 'Delivered'),
(16, 8, 20, '2024-06-25', '2024-07-01', 'Shipped'),
(17, 12, 16, '2024-06-13', '2024-06-15', 'Pending'),
(18, 20, 14, '2024-06-22', '2024-06-26', 'Delivered'),
(19, 15, 18, '2024-06-15', '2024-06-20', 'Cancelled'),
(20, 18, 19, '2024-06-23', '2024-06-28', 'Shipped');
```

```sql
INSERT INTO Orders (OrderID, ProductID, WarehouseID, Quantity, OrderDate, Status) VALUES
(1, 8, 14, 42, '2024-06-04', 'Delivered'),
(2, 13, 6, 30, '2024-06-06', 'Pending'),
(3, 19, 12, 65, '2024-06-09', 'Shipped'),
(4, 2, 10, 15, '2024-06-18', 'Cancelled'),
(5, 5, 3, 21, '2024-06-22', 'Pending'),
(6, 11, 8, 93, '2024-06-14', 'Shipped'),
(7, 4, 7, 11, '2024-06-07', 'Delivered'),
(8, 17, 19, 78, '2024-06-11', 'Cancelled'),
(9, 20, 2, 52, '2024-06-05', 'Pending'),
(10, 6, 13, 39, '2024-06-21', 'Shipped'),
(11, 3, 5, 88, '2024-06-10', 'Delivered'),
(12, 15, 1, 17, '2024-06-17', 'Pending'),
(13, 1, 20, 23, '2024-06-19', 'Cancelled'),
(14, 12, 9, 46, '2024-06-24', 'Delivered'),
(15, 10, 11, 67, '2024-06-08', 'Pending'),
(16, 14, 4, 53, '2024-06-27', 'Shipped'),
(17, 7, 15, 34, '2024-06-15', 'Delivered'),
(18, 9, 17, 84, '2024-06-13', 'Cancelled'),
(19, 18, 16, 49, '2024-06-20', 'Pending'),
(20, 16, 18, 60, '2024-06-28', 'Shipped');
```

Sample Analytical Queries

- **Top 5 most ordered products**
- **Inventory value per product (price × quantity)**
- **Delayed shipments beyond expected delivery**
- **Cancelled or pending orders**
- **Warehouses with the most shipment activity**
- **Products that were never ordered**

These are pre-written and available at the end of the .sql file under comments.

Sql query and Output

```sql
/* SUPPLIER QUERIES
1.List all suppliers and their contact info */

SELECT
    supplierName, contactName, phone, email
FROM
    suppliers;
```

suppliers 1

SELECT supplierName, contactName, phone, email FF | Enter a SQL expression to filter results (use Ctrl+Space)

Grid | Text | Record

	supplierName	contactName	phone	email
1	Stark Inc	Kevin Rodriguez	257-276-9787	blake45@example.com
2	Klein-Klein	Amanda Miller	964.778.5271	jones.amy@example.org
3	Parker Group	James Young	983.582.7414	christinegreer@example.org
4	Watson Inc	Andrew Anderson	888-216-1192x2701	hansenmegan@example.com
5	Howard-Boyd	Elizabeth Nelson	(313)213-9073	ramirezsteven@example.org
6	Ramos, Campbell and Vargas	Samantha Miller	786-929-0557	jonesscott@example.org
7	Kennedy Group	Stephanie Flores	939.451.6824x7066	grahambryan@example.net
8	Walton Inc	David Gonzalez	(902)375-3644x278	angelicacantu@example.com
9	Douglas and Sons	Daniel Anderson	192.086.6247x080	christinerojas@example.org
10	Nguyen PLC	Jennifer Smith	241-603-2514	rwillis@example.net
11	Gonzalez LLC	Rachel Carter	814.487.9680	twhite@example.org
12	Nelson LLC	Thomas Garcia	630-012-1462x9185	ricemargaret@example.com
13	Mendoza, Parker and Wilson	Brian Clark	(853)078-9529	stevensmarcus@example.net
14	Sullivan Ltd	Christina Johnson	662.348.3960	rbarnes@example.net
15	Gomez and Sons	Rebecca Thomas	034-264-8475	martindeborah@example.org
16	Barnes, King and Grant	Jeffrey Davis	(351)880-6945	ryan79@example.com
17	Walsh-Jones	Anthony Adams	850-079-1804	josephmoore@example.org
18	Fields, Harris and Lambert	Nicholas Lee	(592)496-0971x3423	kennethrobinson@example.net
19	Ramirez, May and Lambert	Ashley Scott	312.670.9616	darren73@example.net
20	Brady, Stevens and Harris	Jessica Martinez	(681)356-2754	michael24@example.com

```sql
/*2.Show suppliers who have sent shipments*/

SELECT DISTINCT s.SupplierName
FROM Suppliers s
JOIN Shipments sh ON s.SupplierID = sh.SupplierID;
```

suppliers 1

SELECT DISTINCT s.SupplierName FROM Suppliers s J | Enter a SQL expression to filter resu

Grid | Text

	SupplierName
1	Stark Inc
2	Klein-Klein
3	Parker Group
4	Watson Inc
5	Howard-Boyd
6	Ramos, Campbell and Vargas
7	Kennedy Group
8	Walton Inc
9	Douglas and Sons
10	Nguyen PLC
11	Gonzalez LLC
12	Nelson LLC
13	Mendoza, Parker and Wilson
14	Sullivan Ltd
15	Gomez and Sons
16	Barnes, King and Grant
17	Walsh-Jones
18	Fields, Harris and Lambert
19	Ramirez, May and Lambert
20	Brady, Stevens and Harris

```sql
/*SHIPMENT QUERIES
3.List all shipments with status and arrival date*/

select * from shipments;
select shipmentid,shipmentdate,arrivaldate,status from shipments;
```

shipments 1

select shipmentid,shipmentdate,arrivaldate,status fro | Enter a SQL expression to filter results (use Ctrl+Space)

Grid | Text

	shipmentid	shipmentdate	arrivaldate	status
1	1	2024-06-11	2024-06-16	Delivered
2	2	2024-06-06	2024-06-09	Shipped
3	3	2024-06-18	2024-06-22	Pending
4	4	2024-06-12	2024-06-16	Cancelled
5	5	2024-06-07	2024-06-13	Pending
6	6	2024-06-09	2024-06-14	Delivered
7	7	2024-06-14	2024-06-20	Shipped
8	8	2024-06-26	2024-07-02	Pending
9	9	2024-06-17	2024-06-21	Shipped
10	10	2024-06-08	2024-06-13	Cancelled
11	11	2024-06-21	2024-06-26	Shipped
12	12	2024-06-19	2024-06-25	Delivered
13	13	2024-06-16	2024-06-22	Pending
14	14	2024-06-05	2024-06-10	Cancelled
15	15	2024-06-10	2024-06-12	Delivered
16	16	2024-06-25	2024-07-01	Shipped
17	17	2024-06-13	2024-06-15	Pending
18	18	2024-06-22	2024-06-26	Delivered
19	19	2024-06-15	2024-06-20	Cancelled
20	20	2024-06-23	2024-06-28	Shipped

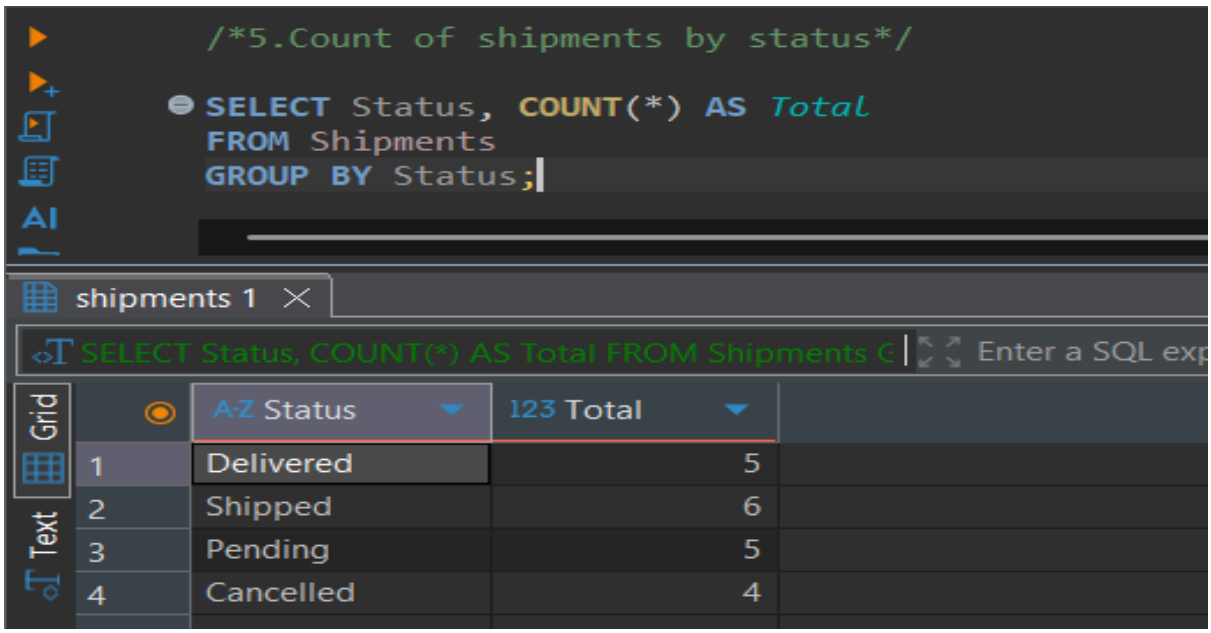
```sql
/*4.Find delayed shipments (ArrivalDate > ShipmentDate + 5 days)*/

SELECT ShipmentID, ShipmentDate, ArrivalDate
FROM Shipments
WHERE ArrivalDate > DATE_ADD(ShipmentDate, INTERVAL 5 DAY);
```

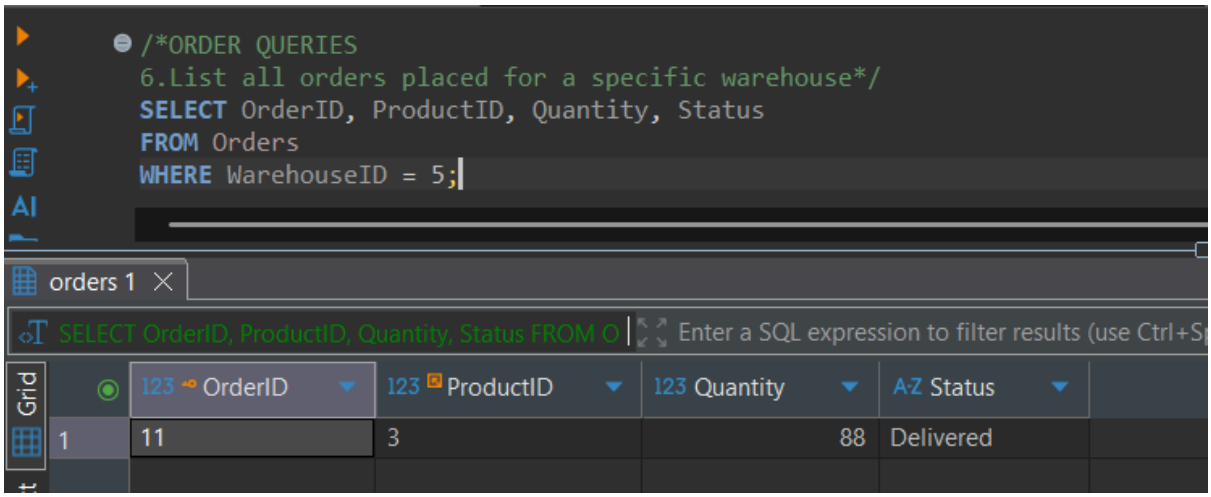
shipments 1

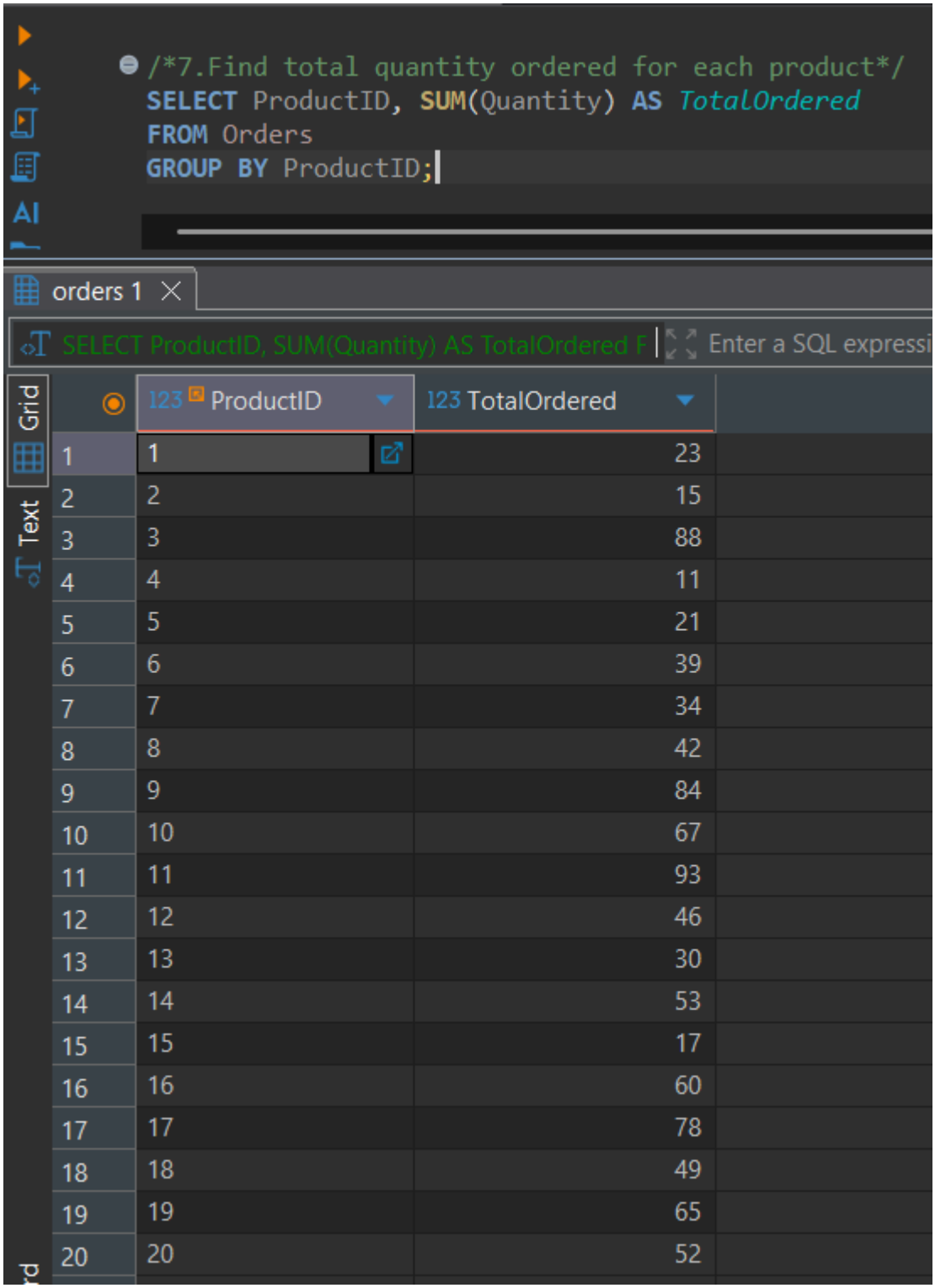
SELECT ShipmentID, ShipmentDate, ArrivalDate FROM | Enter a SQL expression to filter results (use Ctrl+Space

Grid | Text

	ShipmentID	ShipmentDate	ArrivalDate
1	5	2024-06-07	2024-06-13
2	7	2024-06-14	2024-06-20
3	8	2024-06-26	2024-07-02
4	12	2024-06-19	2024-06-25
5	13	2024-06-16	2024-06-22
6	16	2024-06-25	2024-07-01


/*5.Count of shipments by status*/
SELECT Status, COUNT(*) AS Total
FROM Shipments
GROUP BY Status;
shipments 1
SELECT Status, COUNT(*) AS Total FROM Shipments C
Enter a SQL exp
Grid
Text
Status
Total
1 Delivered 5
2 Shipped 6
3 Pending 5
4 Cancelled 4


/*ORDER QUERIES
6.List all orders placed for a specific warehouse*/
SELECT OrderID, ProductID, Quantity, Status
FROM Orders
WHERE WarehouseID = 5;
orders 1
SELECT OrderID, ProductID, Quantity, Status FROM O
Enter a SQL expression to filter results (use Ctrl+S
Grid
OrderID
ProductID
Quantity
Status
1 11 3 88 Delivered


/*7.Find total quantity ordered for each product*/
SELECT ProductID, SUM(Quantity) AS TotalOrdered
FROM Orders
GROUP BY ProductID;
orders 1
SELECT ProductID, SUM(Quantity) AS TotalOrdered F
Enter a SQL expressi
Grid
Text
123 ProductID
123 TotalOrdered
1 1 23
2 2 15
3 3 88
4 4 11
5 5 21
6 6 39
7 7 34
8 8 42
9 9 84
10 10 67
11 11 93
12 12 46
13 13 30
14 14 53
15 15 17
16 16 60
17 17 78
18 18 49
19 19 65
20 20 52

```sql
/*8.List orders with status = 'Cancelled'*/
SELECT * FROM Orders WHERE Status = 'Cancelled';
```

orders 1

SELECT * FROM Orders WHERE Status = 'Cancelled' | Enter a SQL expression to filter results (use Ctrl+Space)

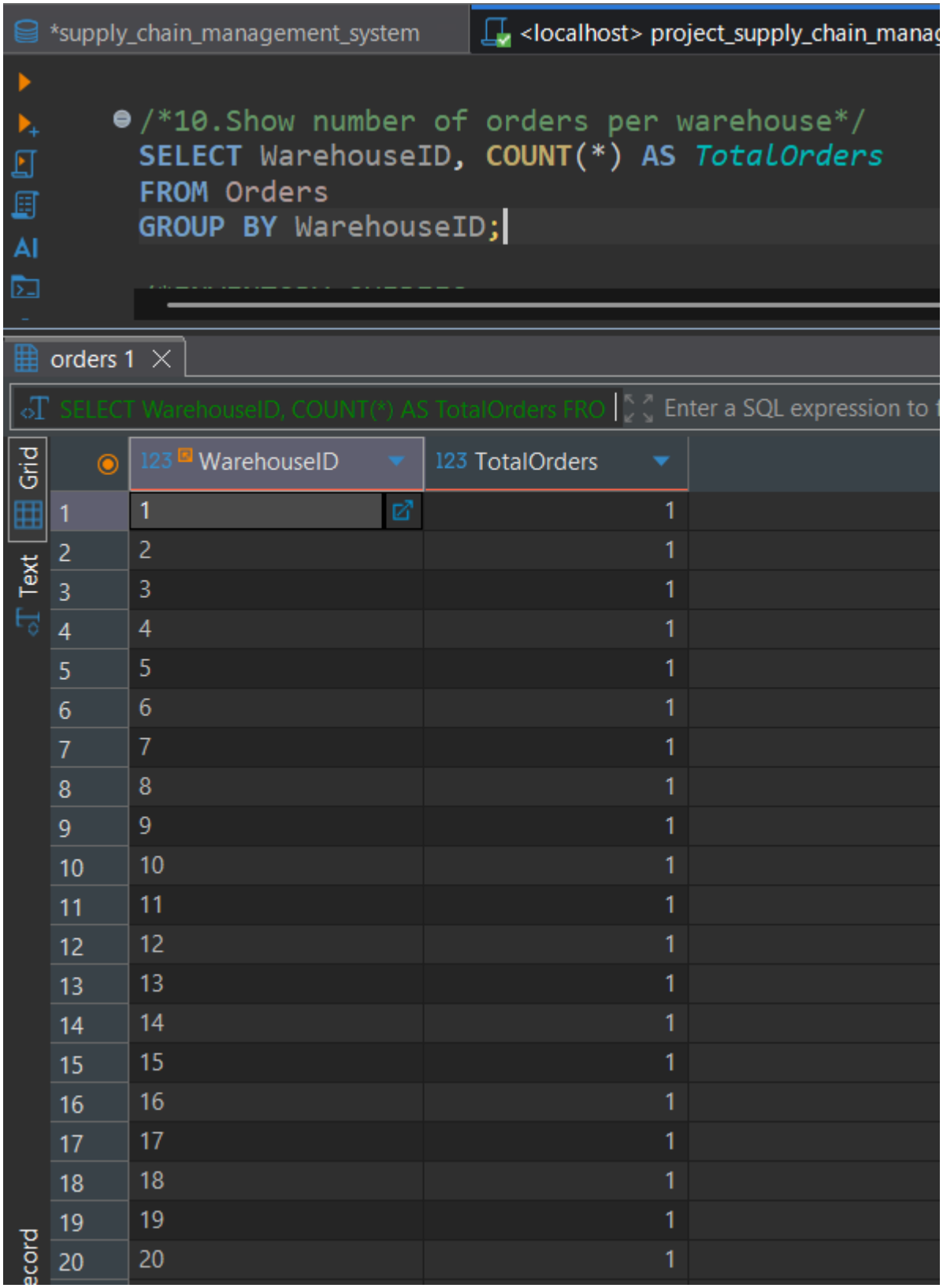
	OrderID	ProductID	WarehouseID	Quantity	OrderDate	Status
1	4	2	10	15	2024-06-18	Cancelled
2	8	17	19	78	2024-06-11	Cancelled
3	13	1	20	23	2024-06-19	Cancelled
4	18	9	17	84	2024-06-13	Cancelled

```sql
/*9.Top 5 most ordered products*/
SELECT ProductID, SUM(Quantity) AS TotalQty
FROM Orders
GROUP BY ProductID
ORDER BY TotalQty DESC
LIMIT 5;
```

orders 1

SELECT * FROM Orders WHERE Status = 'Cancelled' | Enter a SQL expression to filter results (use Ctrl+Space)

	OrderID	ProductID	WarehouseID	Quantity	OrderDate	Status
1	4	2	10	15	2024-06-18	Cancelled
2	8	17	19	78	2024-06-11	Cancelled
3	13	1	20	23	2024-06-19	Cancelled
4	18	9	17	84	2024-06-13	Cancelled


*supply_chain_management_system
<localhost> project_supply_chain_manag
/*10.Show number of orders per warehouse*/
SELECT WarehouseID, COUNT(*) AS TotalOrders
FROM Orders
GROUP BY WarehouseID;
orders 1
SELECT WarehouseID, COUNT(*) AS TotalOrders FRO
Enter a SQL expression to
Grid
Text
123 WarehouseID
123 TotalOrders
1 1 1
2 2 1
3 3 1
4 4 1
5 5 1
6 6 1
7 7 1
8 8 1
9 9 1
10 10 1
11 11 1
12 12 1
13 13 1
14 14 1
15 15 1
16 16 1
17 17 1
18 18 1
19 19 1
20 20 1

```sql
/*INVENTORY QUERIES
11.Check inventory levels for each product in all warehouses*/
SELECT ProductID, WarehouseID, Quantity FROM Inventory;
```

inventory 1

SELECT ProductID, WarehouseID, Quantity FROM Inv | Enter a SQL expression to filter results (use Ctrl+Space)

	ProductID	WarehouseID	Quantity
1	5	1	299
2	14	9	364
3	12	6	222
4	1	14	413
5	8	11	118
6	10	3	137
7	20	17	351
8	13	2	197
9	4	15	229
10	3	7	278
11	11	4	424
12	18	8	108
13	17	13	496
14	9	20	273
15	6	5	144
16	15	10	182
17	2	16	327
18	16	12	483
19	7	19	92
20	19	18	159

```sql
/*12.Find products with inventory less than 100 units*/
SELECT * FROM Inventory WHERE Quantity < 100;
```

inventory 1

SELECT * FROM Inventory WHERE Quantity < 100 | Enter a SQL expression to filter results (use Ctrl+Space)

	InventoryID	ProductID	WarehouseID	Quantity
1	19	7	19	92

```sql
/*13.Total stock of each product across all warehouses*/
SELECT ProductID, SUM(Quantity) AS TotalStock
FROM Inventory
GROUP BY ProductID;
```

inventory 1

```
SELECT ProductID, SUM(Quantity) AS TotalStock FRO | Enter a SQL expression to filter results (use Ctrl+Space)
```

	ProductID	TotalStock
1	1	413
2	2	327
3	3	278
4	4	229
5	5	299
6	6	144
7	7	92
8	8	118
9	9	273
10	10	137
11	11	424
12	12	222
13	13	197
14	14	364
15	15	182
16	16	483
17	17	496
18	18	108
19	19	159
20	20	351

```sql
/*WAREHOUSE QUERIES
14.List all warehouses and their locations*/
SELECT WarehouseName, Location FROM Warehouses;
```

warehouses 1

```
SELECT WarehouseName, Location FROM Warehouse | Enter a SQL expression to filter results (use Ctrl+Space)
```

	WarehouseName	Location
1	Lake John Warehouse	East Zacharyport, United States
2	West Brittany Warehouse	East Amanda, United States
3	New Sarah Warehouse	Port Tiffany, United States
4	Port Lindsay Warehouse	West Ryan, United States
5	Port Tanya Warehouse	Port Crystalfort, United States
6	Port Donald Warehouse	Port Rodney, United States
7	Port Matthew Warehouse	South Victor, United States
8	Lake Andrew Warehouse	Port Daniel, United States
9	North Scott Warehouse	Lake Amanda, United States
10	South Brian Warehouse	North Crystalton, United States
11	Lake Bryan Warehouse	West Dana, United States
12	New Randy Warehouse	Lake Robin, United States
13	South Lawrence Warehouse	Lake Denise, United States
14	New Craig Warehouse	Lake Randall, United States
15	South Richard Warehouse	Port Matthew, United States
16	Lake Todd Warehouse	East Christopherbury, United States
17	West Christine Warehouse	Port Monica, United States
18	Lake Daniel Warehouse	North Natalie, United States
19	Lake Sharon Warehouse	South Brittany, United States
20	Lake Natasha Warehouse	Port Sarahville, United States

```sql
/*15.Warehouses receiving the most shipments*/
SELECT WarehouseID, COUNT(*) AS TotalShipments
FROM Shipments
GROUP BY WarehouseID
ORDER BY TotalShipments DESC;
```

shipments 1

SELECT WarehouseID, COUNT(*) AS TotalShipments F | Enter a SQL expression to filter results (use

Grid | Text

	WarehouseID	TotalShipments
1	1	1
2	2	1
3	3	1
4	4	1
5	5	1
6	6	1
7	7	1
8	8	1
9	9	1
10	10	1
11	11	1
12	12	1
13	13	1
14	14	1
15	15	1
16	16	1
17	17	1
18	18	1
19	19	1
20	20	1

```sql
/*16.List all products with their supplier names and unit prices*/

SELECT p.ProductName, s.SupplierName, p.UnitPrice
FROM Products p
JOIN Suppliers s ON p.SupplierID = s.SupplierID;
```

products(+) 1

SELECT p.ProductName, s.SupplierName, p.UnitPrice f | Enter a SQL expression to filter results (use Ctrl+Space)

	ProductName	SupplierName	UnitPrice
1	Chair Azure	Howard-Boyd	25.34
2	Lamp Pink	Mendoza, Parker and Wilson	49.91
3	Bottle Gold	Fields, Harris and Lambert	32.54
4	Table Turquoise	Kennedy Group	63.27
5	Desk Lime	Klein-Klein	91.72
6	Book Blue	Nguyen PLC	53.49
7	Phone Olive	Watson Inc	42.11
8	Bag Maroon	Barnes, King and Grant	68.04
9	Shoe Silver	Gonzalez LLC	26.8
10	Watch Teal	Ramos, Campbell and Vargas	38.45
11	Glasses Red	Walton Inc	54.33
12	Pen Cyan	Ramirez, May and Lambert	46.79
13	Pillow Indigo	Douglas and Sons	84.25
14	Notebook White	Sullivan Ltd	22.91
15	Fan Purple	Walsh-Jones	96.18
16	Bottle Lavender	Nelson LLC	40.26
17	Mirror Plum	Parker Group	79.02
18	Shelf Fuchsia	Gomez and Sons	36.13
19	Clock Bronze	Brady, Stevens and Harris	72.3
20	Tablet Beige	Stark Inc	65.08

```sql
/*17.Find the most expensive product*/
SELECT * FROM Products
ORDER BY UnitPrice DESC
LIMIT 1;
```

products 1

SELECT * FROM Products ORDER BY UnitPrice DESC l | Enter a SQL expression to filter results (use Ctrl+Space)

	ProductID	ProductName	Description	UnitPrice	SupplierID
1	15	Fan Purple	Actually oil wish risk friend.	96.18	17

```sql
/*18.Find products never ordered*/
SELECT p.ProductID, p.ProductName
FROM Products p
LEFT JOIN Orders o ON p.ProductID = o.ProductID
WHERE o.ProductID IS NULL;
```

products 1

SELECT p.ProductID, p.ProductName FROM Products | Enter a SQL expression to filter results (use Ctrl+

Grid | Text

ProductID	ProductName

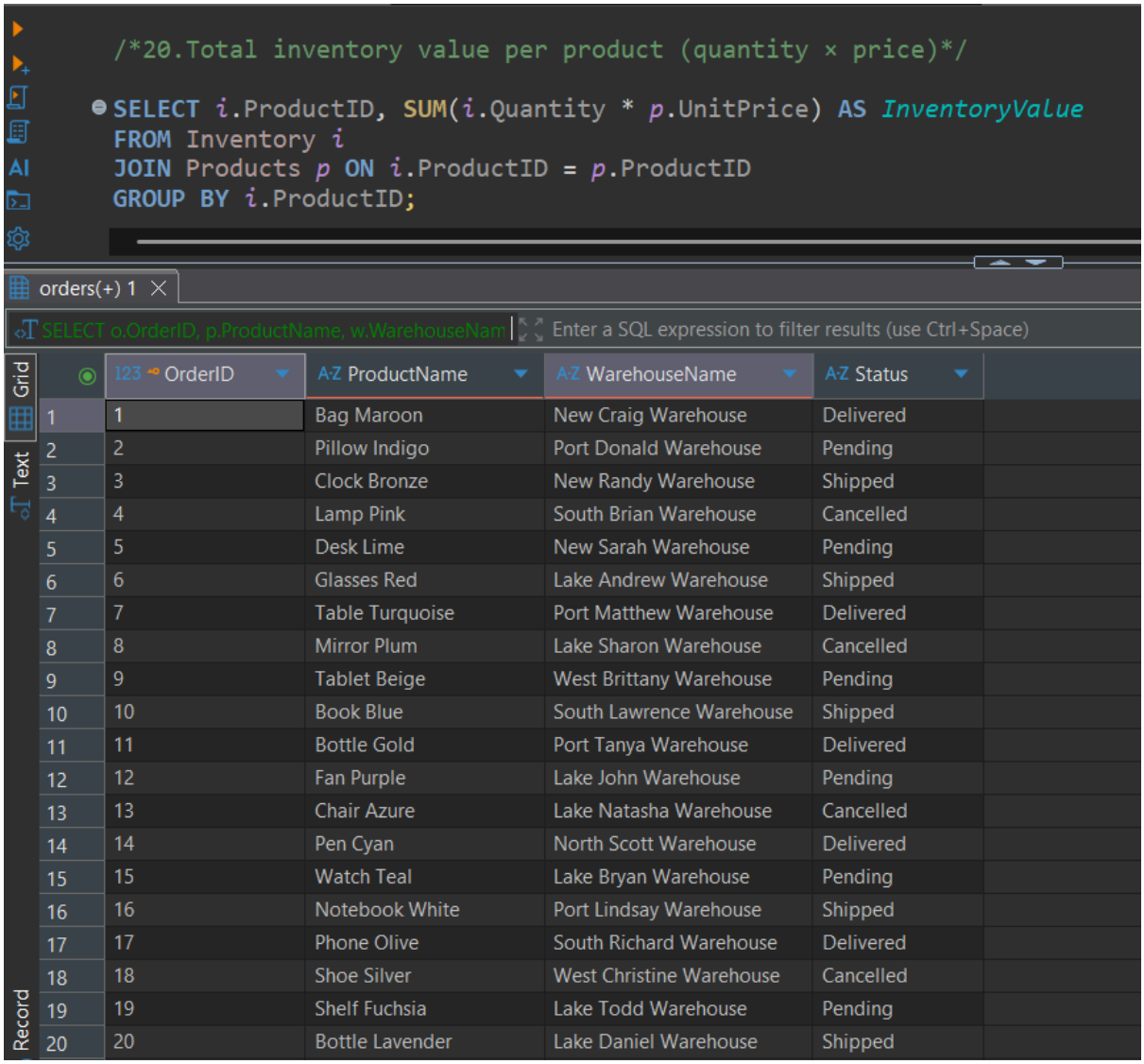
```sql
/*19.List all orders with product name, warehouse name, and order status*/

SELECT o.OrderID, p.ProductName, w.WarehouseName, o.Status
FROM Orders o
JOIN Products p ON o.ProductID = p.ProductID
JOIN Warehouses w ON o.WarehouseID = w.WarehouseID;
```

orders(+) 1

SELECT o.OrderID, p.ProductName, w.WarehouseNam | Enter a SQL expression to filter results (use Ctrl+Space)

Grid | Text | Record

	OrderID	ProductName	WarehouseName	Status
1	1	Bag Maroon	New Craig Warehouse	Delivered
2	2	Pillow Indigo	Port Donald Warehouse	Pending
3	3	Clock Bronze	New Randy Warehouse	Shipped
4	4	Lamp Pink	South Brian Warehouse	Cancelled
5	5	Desk Lime	New Sarah Warehouse	Pending
6	6	Glasses Red	Lake Andrew Warehouse	Shipped
7	7	Table Turquoise	Port Matthew Warehouse	Delivered
8	8	Mirror Plum	Lake Sharon Warehouse	Cancelled
9	9	Tablet Beige	West Brittany Warehouse	Pending
10	10	Book Blue	South Lawrence Warehouse	Shipped
11	11	Bottle Gold	Port Tanya Warehouse	Delivered
12	12	Fan Purple	Lake John Warehouse	Pending
13	13	Chair Azure	Lake Natasha Warehouse	Cancelled
14	14	Pen Cyan	North Scott Warehouse	Delivered
15	15	Watch Teal	Lake Bryan Warehouse	Pending
16	16	Notebook White	Port Lindsay Warehouse	Shipped
17	17	Phone Olive	South Richard Warehouse	Delivered
18	18	Shoe Silver	West Christine Warehouse	Cancelled
19	19	Shelf Fuchsia	Lake Todd Warehouse	Pending
20	20	Bottle Lavender	Lake Daniel Warehouse	Shipped



GitHub: github.com/IAMDHARMA

Author

Dharmarajan M

LinkedIn Profile