

Inventory Chain Analysis

SQL Project

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Question 1: Finding all the orders which have been ordered more than ones

SELECT ProductName, COUNT(*) AS NumberOrders

FROM products

JOIN orders

ON products.id = orders.ProductId

GROUP BY ProductName

HAVING NumberOrders > 1;

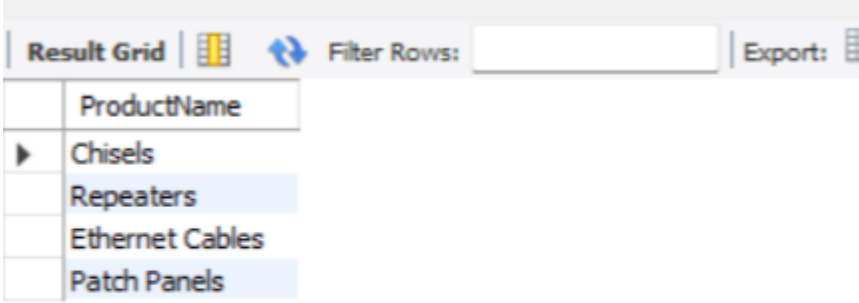
Output:

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	ProductName	NumberOrders		
▶	Pliers	2		
	Chisels	2		
	Routers	4		
	Switches	2		
	Modems	3		
	Power Adapters	3		
	Racks	4		
	Patch Panels	2		
	Accessories	2		
	Connectors	2		
	Hubs	3		
	Repeaters	3		
	Fiber Optic Cab...	6		
	Firewalls	4		
	Transceivers	3		

Question 2: Finding out the products which were unsold

```
SELECT ProductName  
FROM products  
LEFT JOIN purchases  
ON products.id = purchases.ProductId  
WHERE purchases.ProductId IS NULL;
```

Output:



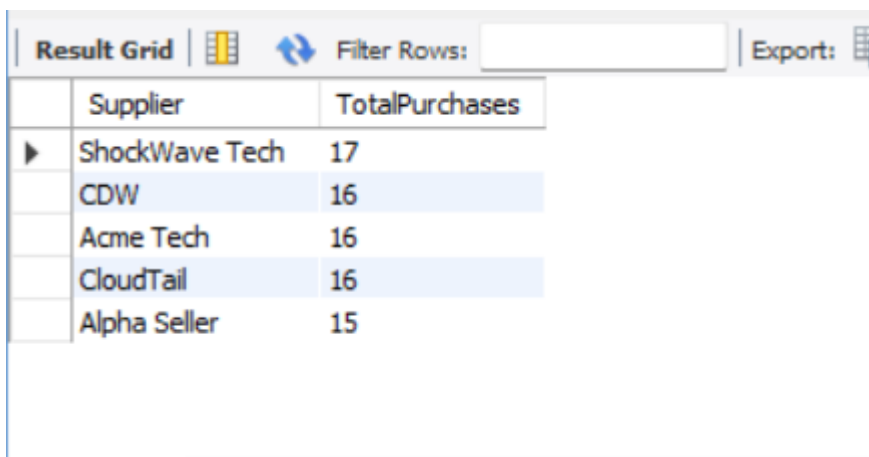
The screenshot shows a database interface with a 'Result Grid' tab. The grid displays the results of a SQL query. The first column is a checkbox, and the second column is 'ProductName'. The products listed are Chisels, Repeaters, Ethernet Cables, and Patch Panels. The 'Repeater' and 'Patch Panels' rows are highlighted in blue. Above the grid, there is a 'Filter Rows:' input field and an 'Export:' button.

	ProductName
<input type="checkbox"/>	Chisels
<input checked="" type="checkbox"/>	Repeaters
<input type="checkbox"/>	Ethernet Cables
<input checked="" type="checkbox"/>	Patch Panels

Question 3 : Total items supplied by each suppliers

```
SELECT Supplier, COUNT(purchases.SupplierId) AS TotalPurchases
FROM suppliers
LEFT JOIN purchases
ON suppliers.id = purchases.SupplierId
GROUP BY Supplier;
```

Output:



	Supplier	TotalPurchases
▶	ShockWave Tech	17
	CDW	16
	Acme Tech	16
	CloudTail	16
	Alpha Seller	15

Question 4 : Displaying what each person bought and on which date

```
SELECT ProductName, CONCAT(First," ",Middle," ",Last) AS  
Name,OrderDate
```

```
FROM products
```

```
JOIN orders ON products.id = orders.ProductId;
```

Output:

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
ProductName	Name	OrderDate	
Pliers	Ram K Singh	2015-05-05	
Firewalls	Himmat A Walia	2017-05-25	
Racks	Priya R Verma	2019-08-15	
Transceivers	Anita M Sharma	2020-12-05	
Chisels	Amit S Jain	2022-02-20	
Modems	Riya K Singh	2018-11-08	
Routers	Rajat S Verma	2021-04-15	
Hubs	Neha A Walia	2016-07-02	
Fiber Optic Cables	Sanjay K Jain	2019-12-20	
Routers	Pooja M Sharma	2022-06-10	
Power Supplies	Neetu K Singh	2017-10-18	
Firewalls	Rahul S Verma	2020-02-27	
Fiber Optic Cables	Ritu A Walia	2016-04-12	
Fiber Optic Cables	Ramesh K Jain	2021-01-05	
Transceivers	Suman M Sharma	2018-08-22	
Hubs	Renu M Gupta	2023-01-02	
Racks	Rajesh K Kumar	2023-02-15	
Chisels	Sakshi R Sharma	2023-03-20	
Routers	Vijay S Singh	2023-04-05	
Firewalls	Rita K Verma	2023-05-10	

Question 5 : Find out the products and their count that have been purchased by a specific supplier

SELECT ProductName,NumberReceived,PurchaseDate





FROM products

JOIN purchases

ON products.id = purchases.ProductId

WHERE purchases.SupplierId = 1; //similarity for supplier 2,3,4,5

Output:

Result Grid   Filter Rows: <input type="text"/> Export:  Wrap Cell Content: 			
	ProductName	NumberReceived	PurchaseDate
▶	Nails	100	2015-05-05
	Bolts	150	2020-12-15
	Racks	180	2016-07-02
	Firewalls	120	2017-10-18
	Transceivers	210	2020-02-17
	Hammers	150	2022-01-19
	Repeaters	190	2022-02-25
	Power Adapters	250	2020-06-20
	Bolts	120	2019-05-03
	Transceivers	210	2018-02-03
	Access Points	150	2017-08-02
	Network Cards	160	2017-12-04
	Antennas	200	2017-06-11
	Hubs	140	2018-04-05
	Modems	180	2016-08-13
	Network Cards	190	2021-03-09

Question 6: Finding out products which have been ordered and their corresponding supplier

```
SELECT ProductName,Supplier
```

```
FROM products
```

```
JOIN purchases ON products.id = purchases.ProductId
```

```
JOIN suppliers ON purchases.SupplierId = suppliers.id;
```

Output:

ProductName	Supplier
Screws	Alpha Seller
Pliers	CloudTail
Pliers	CloudTail
Hammers	ShockWave Tech
Drills	Acme Tech
Drills	CDW
Routers	CDW
Switches	Acme Tech
Modems	Alpha Seller
Power Adapters	CloudTail
Network Cards	ShockWave Tech
Racks	ShockWave Tech
Racks	ShockWave Tech
Patch Panels	Acme Tech

Question 7 : Find the list of products that went in shortage i.e. Number of items shipped were less than Minimum required:

```
SELECT ProductName,NumberShipped,MinimumRequired
```

```
FROM products
```

```
JOIN orders ON products.id = orders.ProductId
```

```
WHERE orders.NumberShipped < products.MinimumRequired;
```

Output:


Result Grid	Filter Rows:	Export:	Wrap Cell Content:
ProductName	NumberShipped	MinimumRequired	
Pliers	250	300	
Firewalls	150	600	
Racks	300	600	
Transceivers	120	300	
Chisels	180	700	
Modems	220	300	
Routers	190	400	
Hubs	170	600	
Fiber Optic Cables	200	300	
Routers	160	600	
Power Supplies	210	300	
Firewalls	230	600	
Fiber Optic Cables	240	300	
Fiber Optic Cables	170	300	
Transceivers	190	300	
Hubs	140	600	
Racks	190	600	
Chisels	250	700	
Routers	200	400	
Firewalls	170	600	


Question 8 : Find the list of products which were over shipped that is products which came in excess.

```
SELECT ProductName,PartNumber,ProductLabel
FROM products
WHERE InventoryShipped < MinimumRequired;
```

Output:


Result Grid






Filter Rows:

Export:



Wrap Cell Content:



	ProductName	PartNumber	ProductLabel
▶	Nails	12LCK	NLS
	Power Supplies	89PWR	PWR
	Circuit Boards	34CRB	CRB
	Adapters	33ADP	ADP
	Power Adapters	21PWR	PWR
	Antennas	88ANT	ANT
	Accessories	76ACC	ACC
	Connectors	21CON	CON
	Access Points	76APS	AP
	Network Cards	33NWC	NWC
	Firewalls	67FWL	FWL

Question 9 : Finding the purchases done by suppliers YEARLY

```
SELECT YEAR(PurchaseDate) AS Year,COUNT(ProductId) AS  
NumberOfPurchase
```

```
FROM purchases
```

```
JOIN suppliers
```

```
ON purchases.SupplierId=suppliers.id
```

```
GROUP BY Year
```

```
ORDER BY NumberOfPurchase DESC;
```

Output:

Result Grid			Filter Rows:	Export:	Wrap Cell Content:
	Year	NumberOfPurchase			
▶	2017	14			
	2020	13			
	2016	13			
	2022	10			
	2021	10			
	2019	9			
	2018	9			
	2015	1			
	2023	1			

Question 10 : Finding out the names of customers ordering a specific product

```
SELECT CONCAT(First," ",Last) as Name
```

```
FROM orders
```

```
JOIN products
```

```
ON orders.ProductId = products.id
```

```
WHERE ProductName LIKE 'Routers';
```

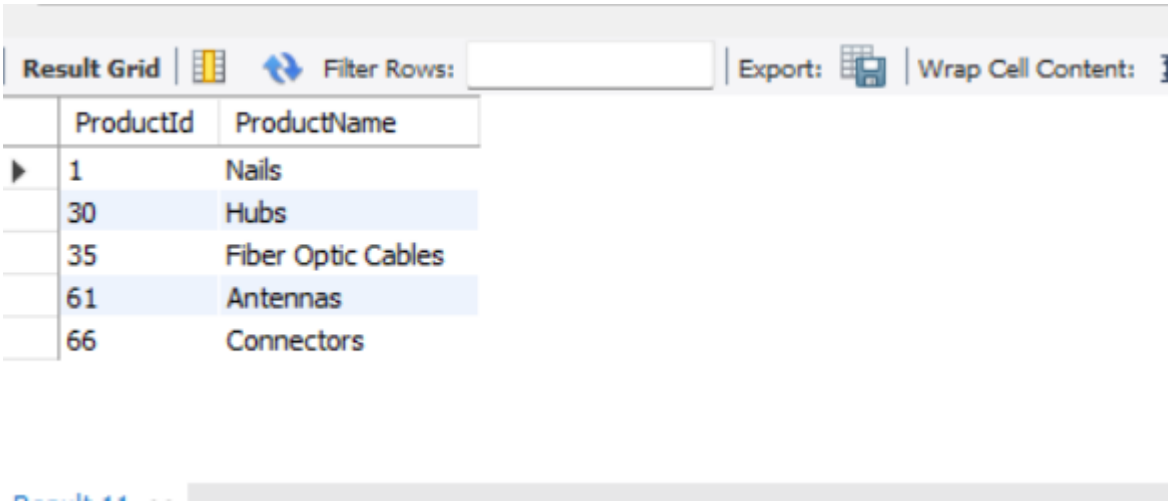
Output:

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	Name			
▶	Pooja Singh			
	Rajat Verma			
	Vijay Singh			
	Pooja Sharma			

Question 11 : Finding the products which were not misplaced during shipping to suppliers that is having InventoryShipped = NumberReceived

```
SELECT ProductId,ProductName
FROM products
JOIN purchases
ON products.id=purchases.ProductId
WHERE InventoryShipped = NumberReceived;
```

Output:



The screenshot shows a database query result grid with a toolbar at the top. The toolbar includes a 'Result Grid' tab, a grid icon, a 'Filter Rows' input field, an 'Export' button with a grid icon, and a 'Wrap Cell Content' button. The result grid itself has two columns: 'ProductId' and 'ProductName'. It contains five rows of data, with the first row expanded to show a small triangle icon on the left. The data is as follows:

	ProductId	ProductName
▶	1	Nails
	30	Hubs
	35	Fiber Optic Cables
	61	Antennas
	66	Connectors

Question 12 : Finding number of Male and female customers

```
SELECT title,COUNT(*) AS Total
```

```
FROM orders
```

```
GROUP BY title;
```




Output:

Result Grid			Filter Rows:	Export
	title	Total		
▶	Mr.	18		
	Mrs.	22		
	Ms.	14		

Question 13 : Finding Product details bought by a specific customer

```
SELECT title,CO SELECT  
orders.id,ProductName,NumberShipped,OrderDate  
FROM orders  
JOIN products  
ON orders.ProductId = products.id  
WHERE First = 'Pooja' AND Last = 'Sharma';
```



Output:


Result Grid  Filter Rows: <input type="text"/> Export:  Wrap Cell Content: 				
	id	ProductName	NumberShipped	OrderDate
▶	10	Routers	160	2022-06-10
	35	Power Adapters	170	2022-01-01


Question 14: Finding out the recent purchase date of all the suppliers

```
SELECT Supplier, MAX(PurchaseDate) AS LatestOrderDate
FROM purchases
JOIN suppliers
ON purchases.SupplierId = suppliers.id
GROUP BY SupplierId;
```

Output:

Result Grid |   Filter Rows:

Export: 

Wrap Cell Content: 

	Supplier	LatestOrderDate
▶	ShockWave Tech	2022-02-25
	CDW	2022-03-12
	Acme Tech	2022-02-15
	CloudTail	2023-01-05
	Alpha Seller	2022-04-10

Question 15: Finding products whose stocks are remmaining. (not bought by any supplier)

```
SELECT ProductName,ProductLabel, (InventoryOnHand-  
InventoryShipped) AS RemainingStock
```

```
FROM products
```

```
WHERE InventoryOnHand > InventoryShipped;
```



Output:

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
ProductName	ProductLabel	RemainingStock	
Nails	NLS	1300	
Antennas	ANT	1140	
Connectors	CON	800	

Question 16: Finding Quarterly purchases of a specific supplier

```
SELECT QUARTER(PurchaseDate) AS Quarter,COUNT(SupplierId)
FROM purchases
JOIN suppliers
ON purchases.SupplierId=suppliers.id
WHERE Supplier="CDW"
GROUP BY Quarter;
```



Output:

Result Grid   Filter Rows: <input type="text"/>		
	Quarter	COUNT(SupplierId)
▶	1	6
	2	5
	4	4
	3	1

Question 17: Finding Best Year and Quarter in which sales were maximum for the businesses

```
SELECT YEAR(PurchaseDate) AS YearName, QUARTER(PurchaseDate) AS  
Quarter,COUNT(SupplierId) AS Sales  
  
FROM purchases  
  
JOIN suppliers  
  
ON purchases.SupplierId=suppliers.id  
  
GROUP BY YearName,Quarter  
  
ORDER BY Sales DESC LIMIT 1;
```



Output:

Result Grid   Filter Rows: <input type="text"/>			
	YearName	Quarter	Sales
▶	2016	3	8

Question 18: Finding out the suppliers which supplies specific products

```
SELECT Supplier  
FROM suppliers  
LEFT JOIN purchases  
ON suppliers.id=purchases.ProductId  
JOIN products ON products.id=purchases.ProductId  
WHERE ProductName="Nails";
```

Output:

Result Grid |   Filter Rows:

	Supplier
▶	ShockWave Tech
	ShockWave Tech
	ShockWave Tech

Question 19: Finding TOP 3 supplier who sold most units

SELECT Supplier,SUM(NumberShipped) AS TotalItemsOrdered

FROM purchases

JOIN products ON products.Id = purchases.ProductId



JOIN orders ON products.Id = orders.ProductId

JOIN suppliers ON purchases.SupplierId = suppliers.id

GROUP BY Supplier

ORDER BY TotalItemsOrdered DESC LIMIT 3;

Output:

Result Grid  Filter Rows: <input type="text"/> Export:  Wrap Cell Content:		
	Supplier	TotalItemsOrdered
▶	Alpha Seller	2040
	ShockWave Tech	2000
	Acme Tech	1990