

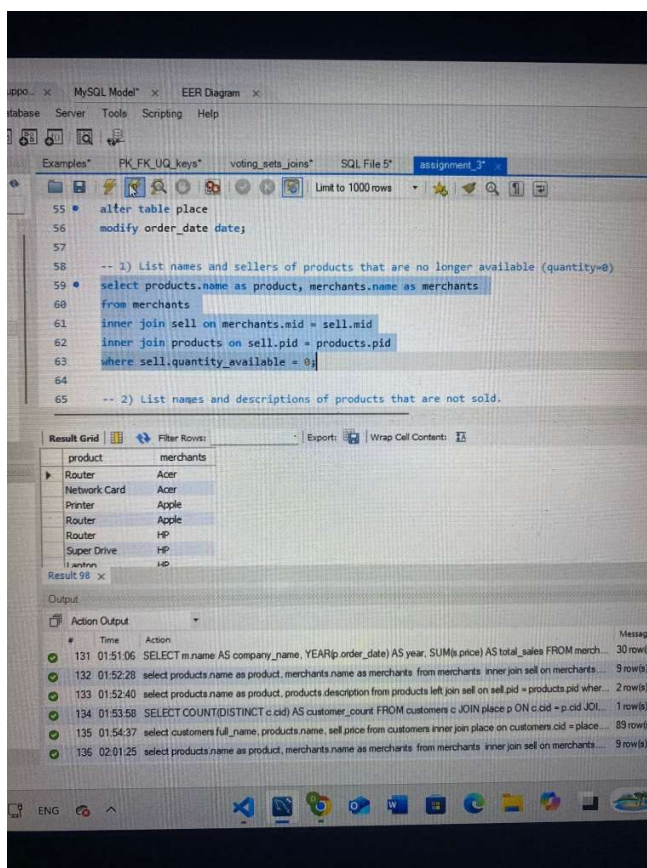
Data Base management homework 3

10.10.2024

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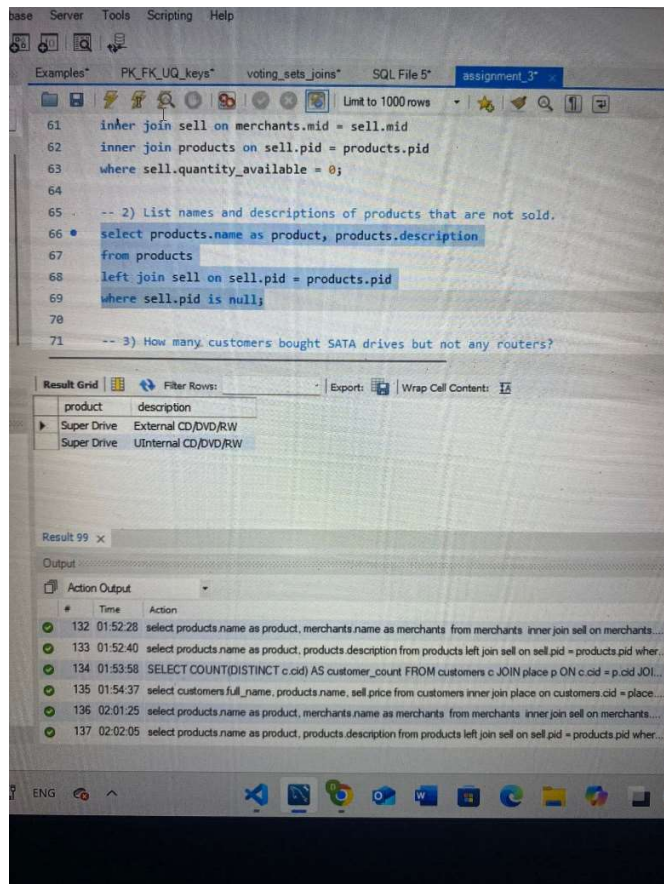
1) List names and sellers of products that are no longer available (quantity=0):

This query selects product names and the corresponding merchants for products where the quantity available is zero. It helps identify products that are out of stock and highlights which merchants are associated with these products.



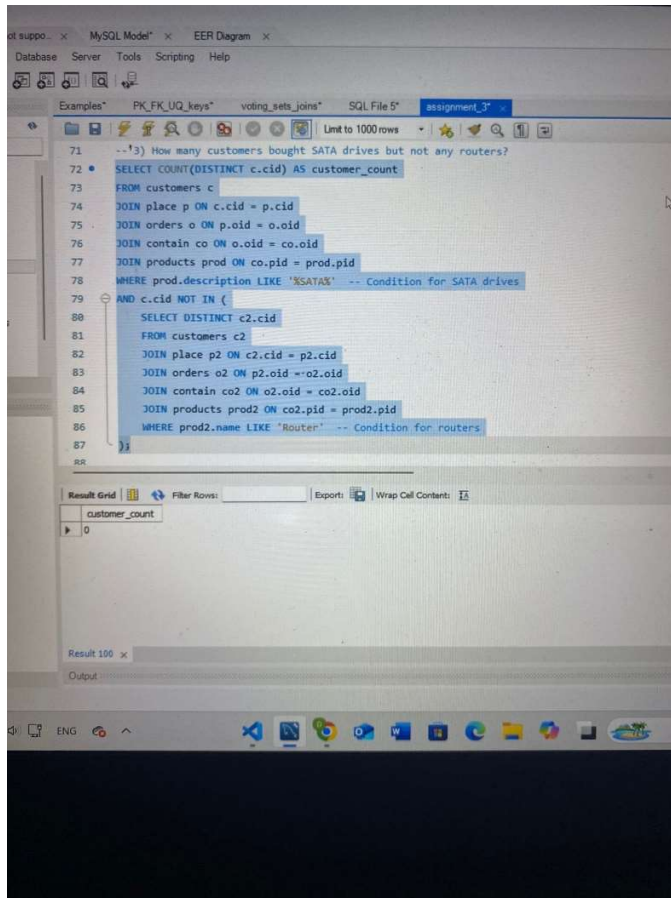
2) List names and descriptions of products that are not sold:

This query retrieves the names and descriptions of products that do not have any associated sales records. It addresses the need to find unsold inventory, allowing businesses to assess products that may not be performing well.



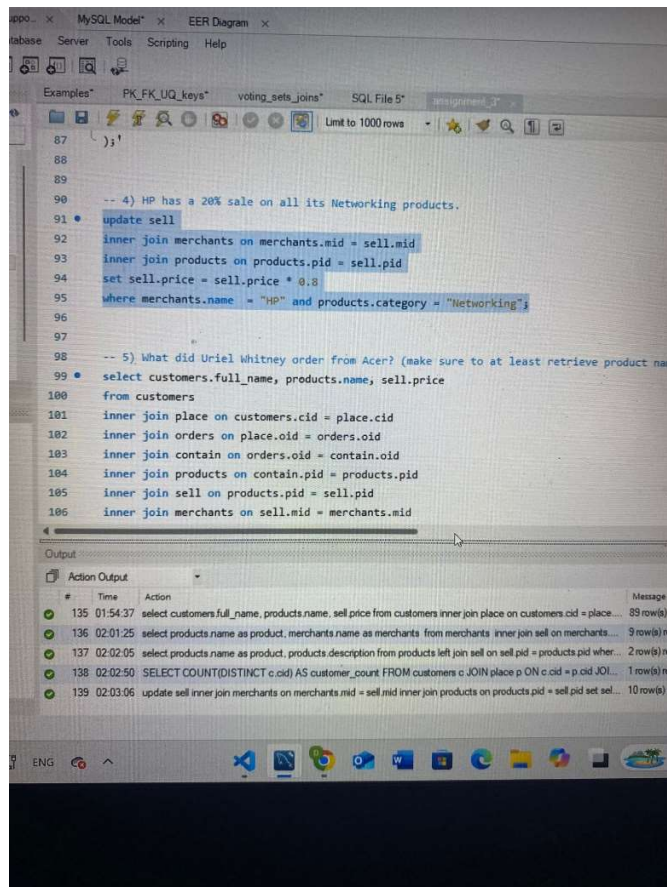
3) How many customers bought SATA drives but not any routers?:

This query counts the number of unique customers who have purchased SATA drives while ensuring they did not purchase routers. It answers the question by filtering customer purchases to find a specific buying behavior.



4) HP has a 20% sale on all its Networking products:

This query updates the prices of HP's Networking products to apply a 20% discount. It answers the question by reflecting the promotional change in pricing for specific products.



The screenshot shows a MySQL IDE window with a SQL editor and an output pane. The SQL editor contains two queries. The first query is an update statement for a 20% sale on HP networking products. The second query is a select statement to find products ordered by Uriel Whitney from Acer. The output pane shows the execution results for the second query, including row counts and messages.

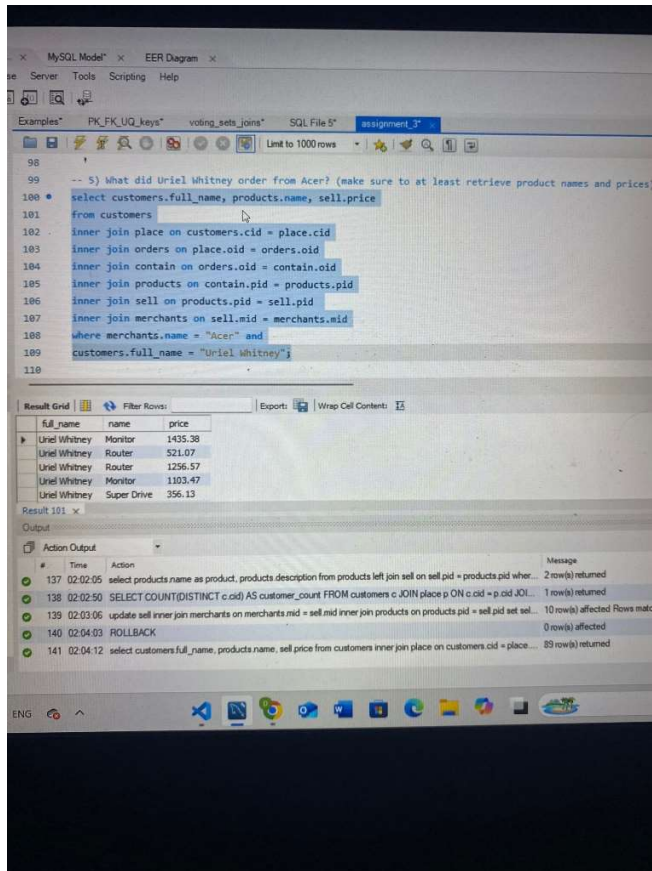
```
87 -- 4) HP has a 20% sale on all its Networking products.
88
89
90 -- 4) HP has a 20% sale on all its Networking products.
91 • update sell
92 inner join merchants on merchants.mid = sell.mid
93 inner join products on products.pid = sell.pid
94 set sell.price = sell.price * 0.8
95 where merchants.name = "HP" and products.category = "Networking";
96
97
98 -- 5) What did Uriel Whitney order from Acer? (make sure to at least retrieve product name
99 • select customers.full_name, products.name, sell.price
100 from customers
101 inner join place on customers.cid = place.cid
102 inner join orders on place.oid = orders.oid
103 inner join contain on orders.oid = contain.oid
104 inner join products on contain.pid = products.pid
105 inner join sell on products.pid = sell.pid
106 inner join merchants on sell.mid = merchants.mid
```

Output

#	Time	Action	Message
135	01:54:37	select customers.full_name, products.name, sell price from customers inner join place on customers.cid = place...	89 row(s) n...
136	02:01:25	select products.name as product, merchants.name as merchants from merchants inner join sell on merchants...	9 row(s) ret...
137	02:02:05	select products.name as product, products.description from products left join sell on sell.pid = products.pid wher...	2 row(s) ret...
138	02:02:50	SELECT COUNT(DISTINCT c.cid) AS customer_count FROM customers c JOIN place p ON c.cid = p.cid JOI...	1 row(s) ret...
139	02:03:06	update sell inner join merchants on merchants.mid = sell.mid inner join products on products.pid = sell.pid set sel...	10 row(s) d...

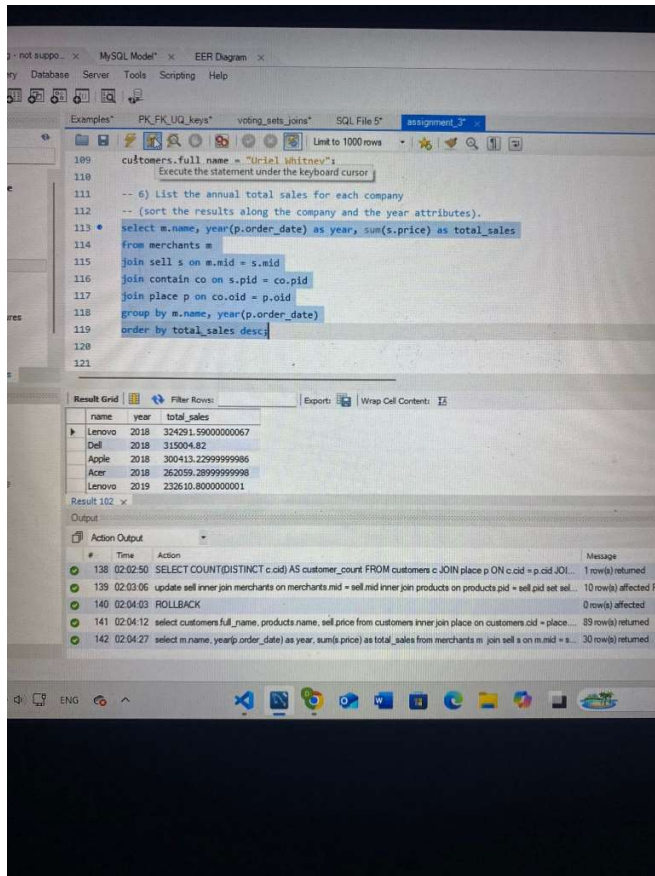
5) What did Uriel Whitney order from Acer?:

This query retrieves the names and prices of products ordered by Uriel Whitney from Acer. It answers the question by providing a detailed look at this specific customer's transactions.



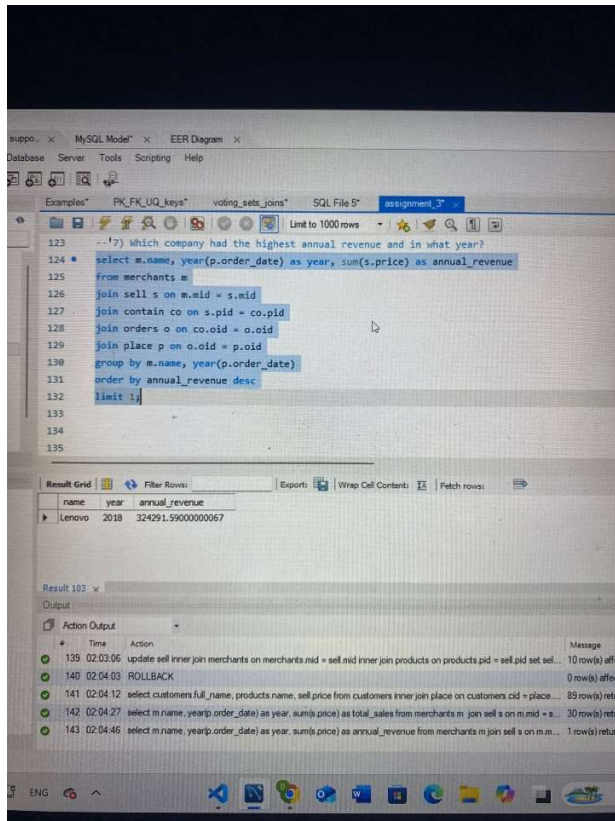
6) List the annual total sales for each company (sort the results along the company and the year attributes):

This query calculates and lists total sales for each company, grouped by year. It addresses the question by providing a summary of sales performance over time for each merchant.



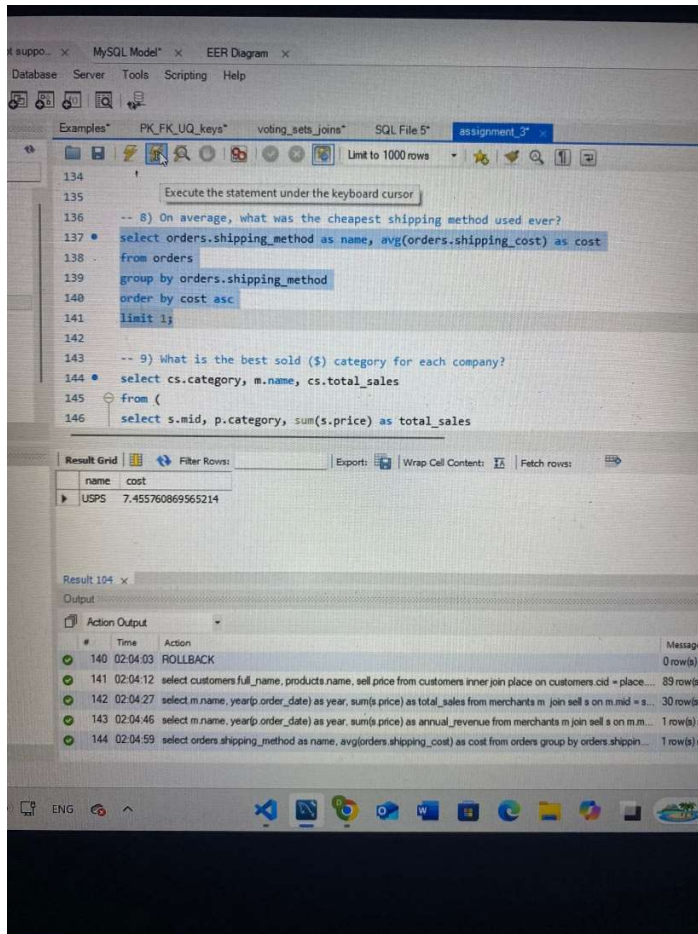
7) Which company had the highest annual revenue and in what year?:

This query identifies the company with the highest revenue in a particular year. It answers the question by pinpointing the top performer and the corresponding year of that performance



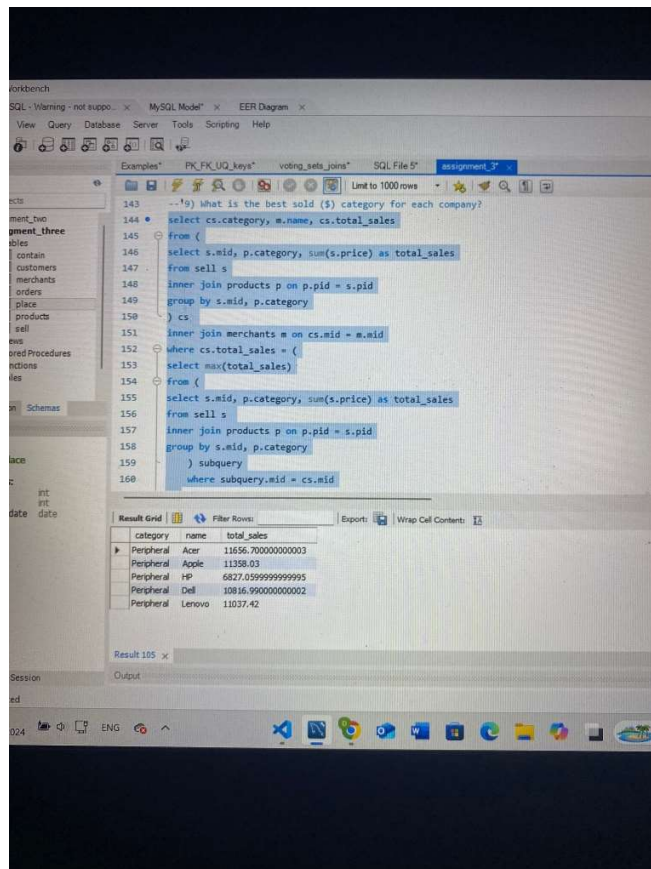
8) On average, what was the cheapest shipping method used ever?:

This query calculates the average shipping cost for each method to identify the cheapest one overall. It answers the question by providing insights into shipping cost efficiency across methods.



9) What is the best sold (\$) category for each company?:

This query determines the top-grossing product category for each company based on total sales. It answers the question by identifying which product categories are generating the most revenue.



10) For each company find out which customers have spent the most and the least amounts:

The query calculates total spending for each customer per merchant using, then ranks them with to identify the highest and lowest spenders. It filters results to include only the top and bottom ranks for each merchant, joining the necessary tables to retrieve customer and merchant names. The final output clearly shows the highest and lowest spending customers for each company.

MySQL Model* x EER Diagram x

Database Server Tools Scripting Help

Examples* PK_FK_UQ_keys* voting_sets_joins* SQL File 5* assignment_3*

Limit to 1000 rows

```

166 --'10) Who spent most and least at each merchant
167 with customer_spending as (
168   select s.mid, p.cid, sum(s.price) as total_spent
169   from contain co join orders o on co.oid = o.oid
170   join place p on o.oid = p.oid
171   join customers c on p.cid = c.cid
172   join products prod on co.pid = prod.pid
173   join sell s on prod.pid = s.pid
174   group by s.mid, p.cid
175 )
176 ranked_spending as (
177   select cs.mid, cs.cid, cs.total_spent,
178   rank() over (partition by cs.mid order by cs.total_spent desc) as rank_desc,
179   rank() over (partition by cs.mid order by cs.total_spent asc) as rank_asc
180   from customer_spending cs
181 )
182 select merchants.name as company_name,
183        customers.full_name as customer_name,

```

Result Grid Filter Rows: Export: Wrap Cell Contents: 11

company_name	customer_name	total_spent	spending_type
Acer	Inez Long	31901.019999999993	least
Acer	Dean Heath	75230.289999999998	most
Apple	Inez Long	32251.099999999998	least
Apple	Clementine Travis	84551.109999999997	most
Dell	Inez Long	31135.740000000001	least
Dell	Clementine Travis	85611.549999999999	most
HP	Inez Long	19769.905519999997	least
HP	Clementine Travis	50951.630959999998	most

Result 106 x

Output

ER model:

