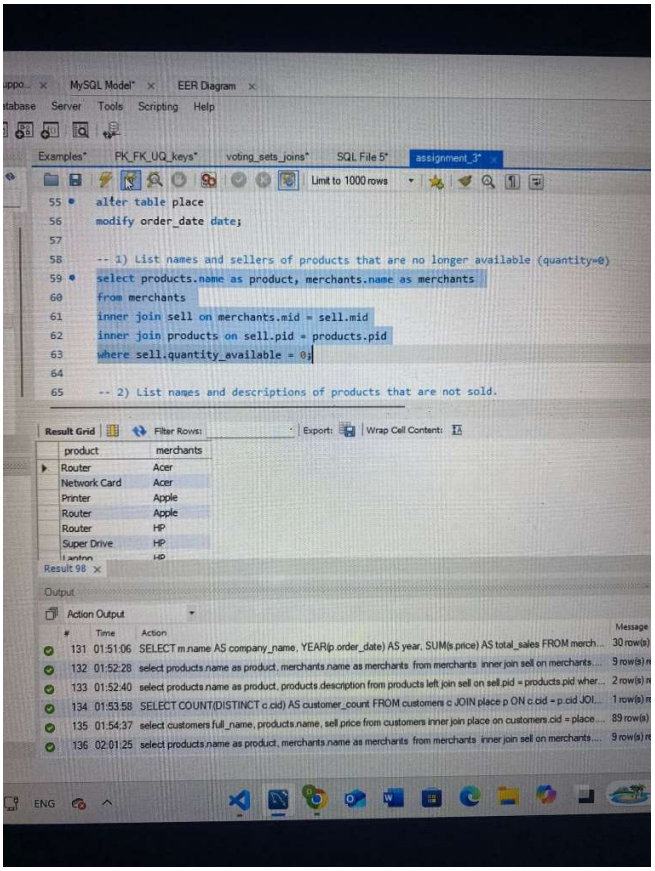
Data Base management homework 3

10.10.2024

David Schwartzman

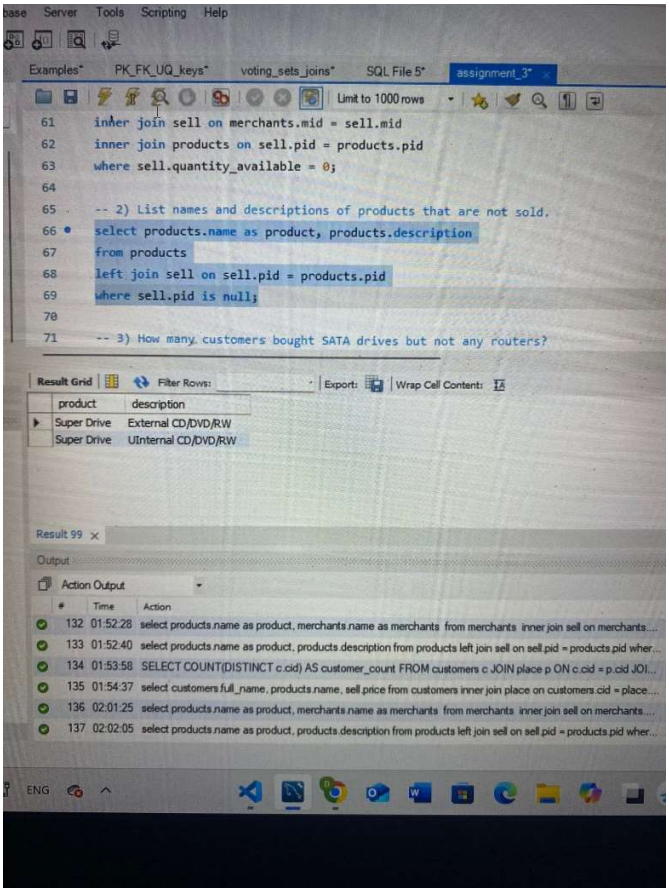
1) **List names and sellers of products that are no longer available (quantity=0)**:

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.



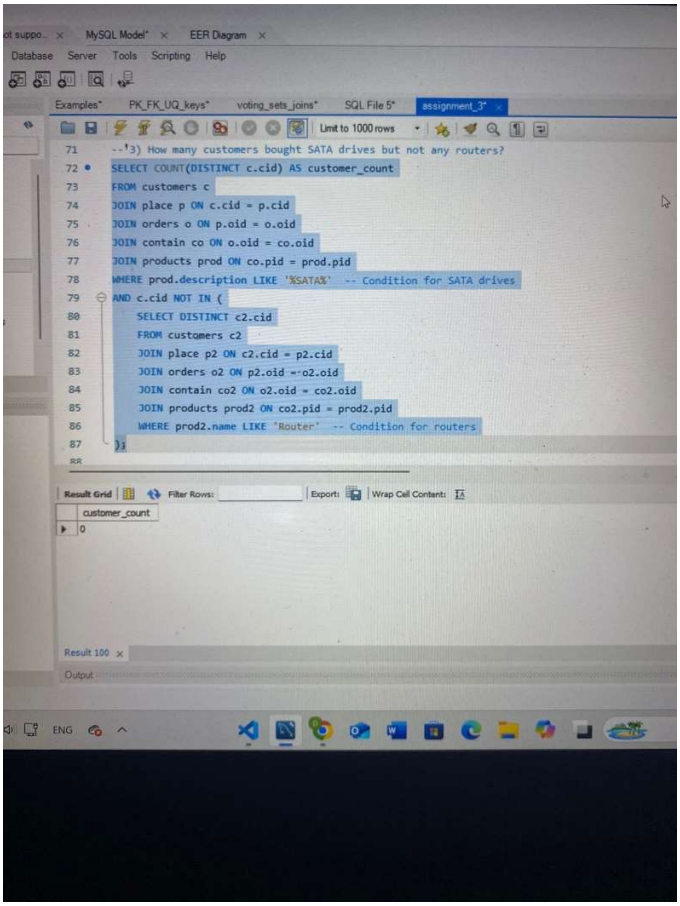
2) **List names and descriptions of products that are not sold**:

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.



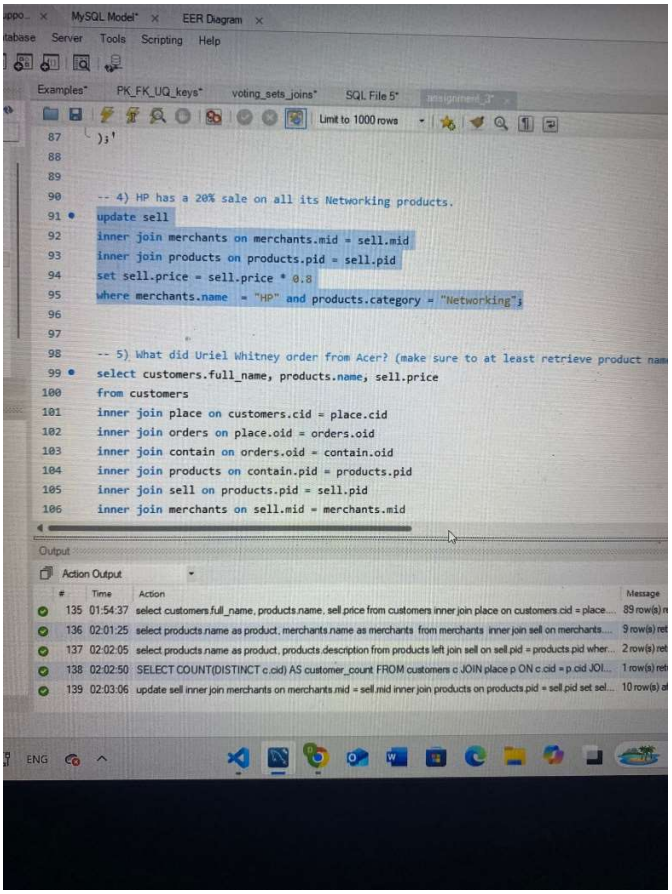
3) **How many customers bought SATA drives but not any routers?**:

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.



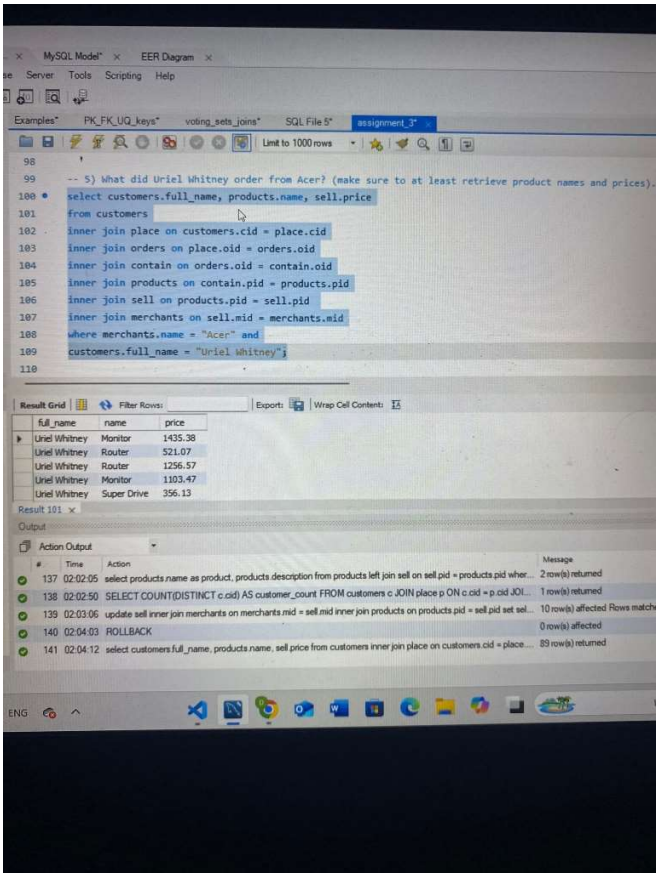
4) **HP has a 20% sale on all its Networking products**:

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.



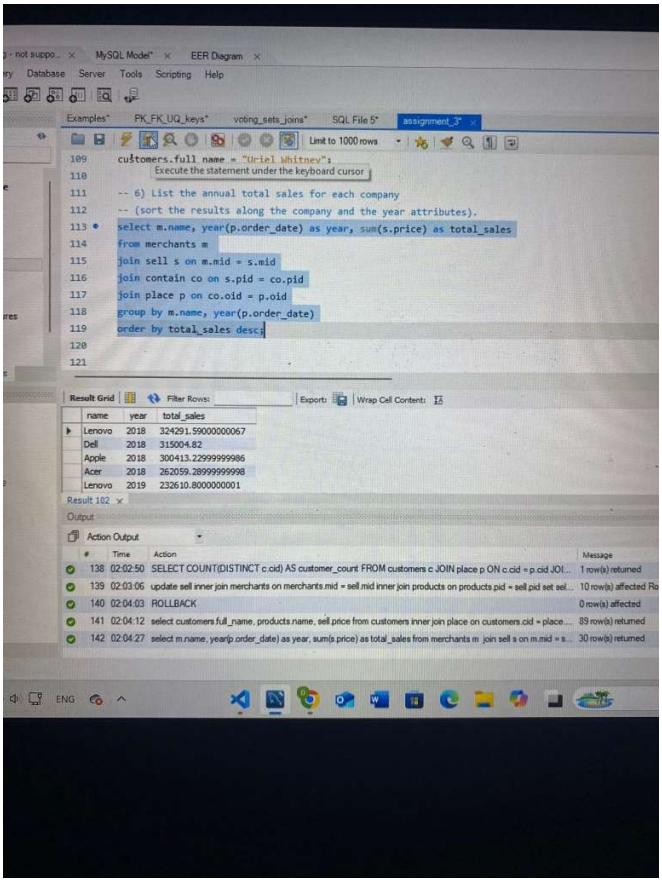
5) **What did Uriel Whitney order from Acer?**:

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.



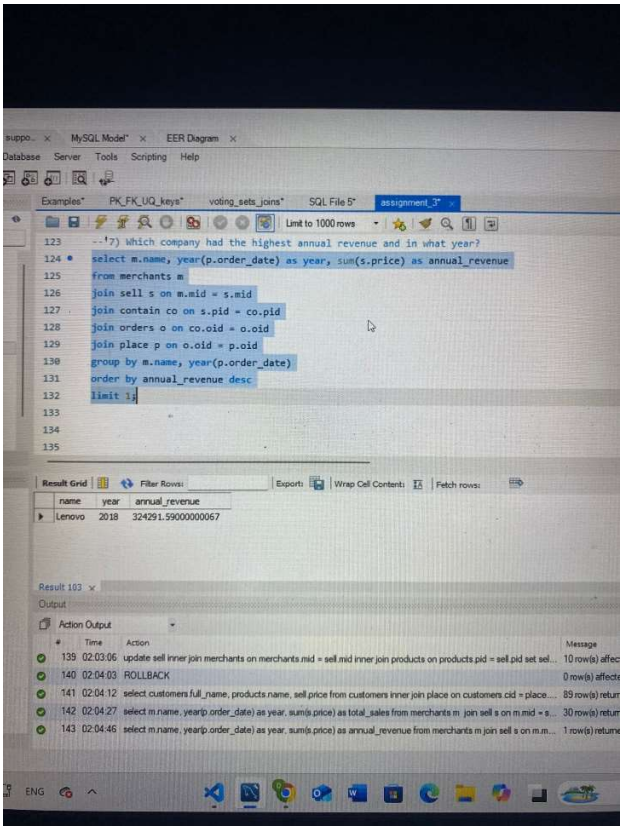
6) **List the annual total sales for each company (sort the results along the company and the year attributes)**:

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.



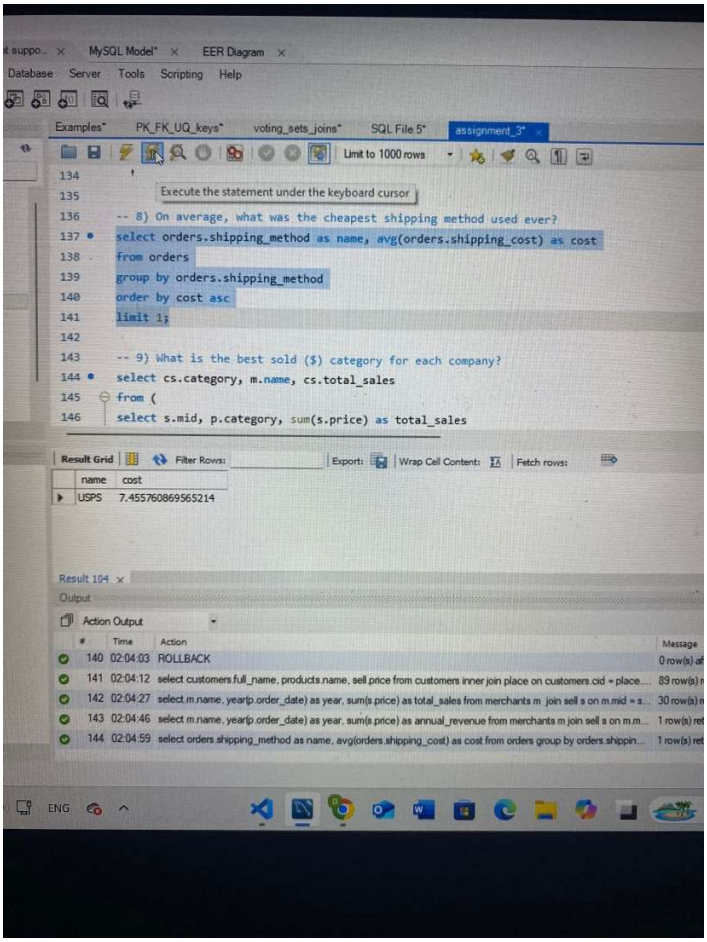
7) **Which company had the highest annual revenue and in what year?**:

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



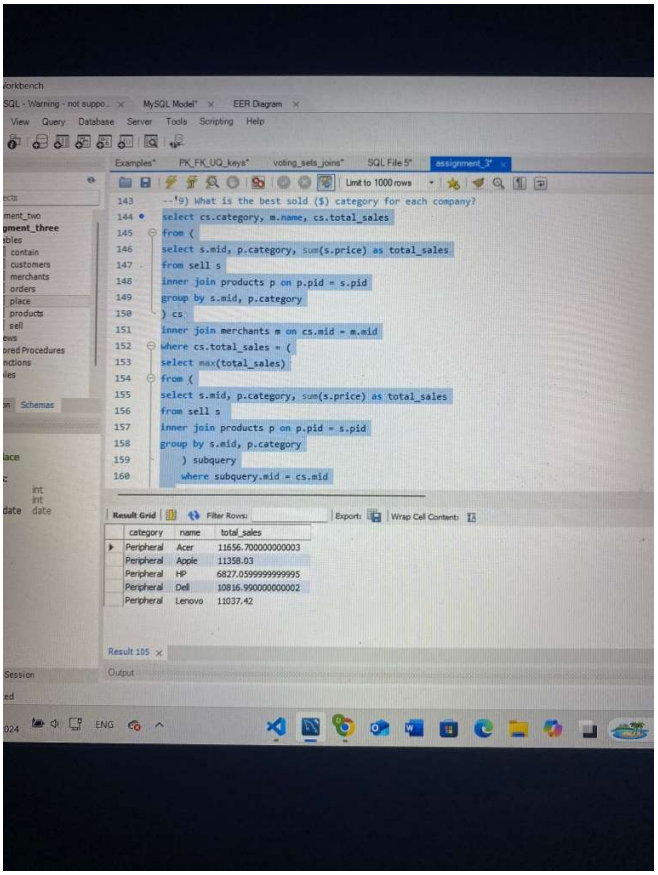
8) **On average, what was the cheapest shipping method used ever?**:

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.



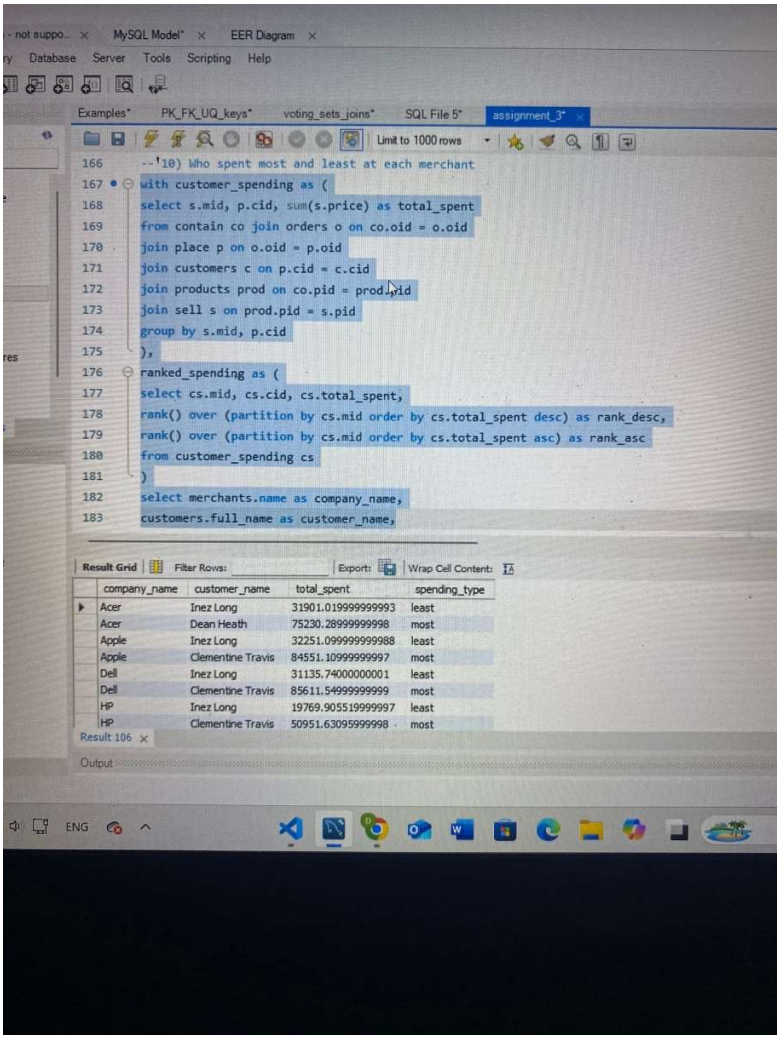
9) **What is the best sold ($) category for each company?**:

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.

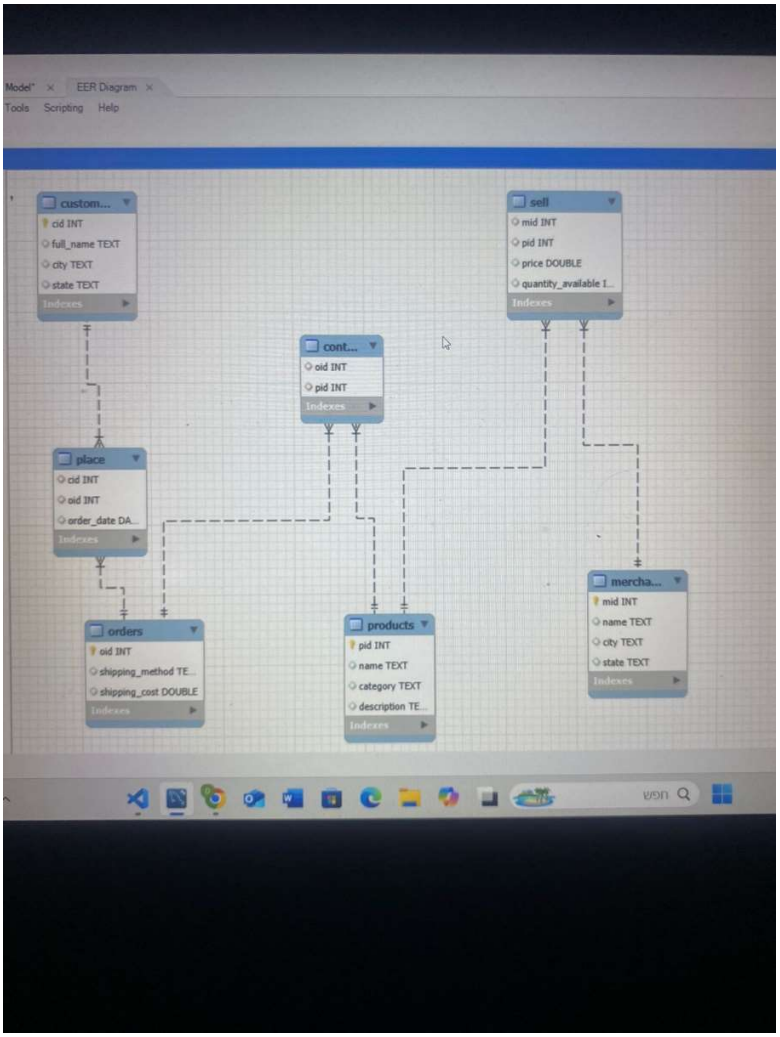


10) **For each company find out which customers have spent the most and the least amounts**:

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*
EER Diagram
Database
Server
Tools
Scripting
Help
Examples*
PK_FK_UQ_keys*
voting_sets_joins*
SQL File 5*
assignment_3*
Limit to 1000 rows
--'10) Who spent most and least at each merchant
with customer_spending as (
select s.mid, p.cid, sum(s.price) as total_spent
from contain co join orders o on co.oid = o.oid
join place p on o.oid = p.oid
join customers c on p.cid = c.cid
join products prod on co.pid = prod.pid
join sell s on prod.pid = s.pid
group by s.mid, p.cid
),
ranked_spending as (
select cs.mid, cs.cid, cs.total_spent,
rank() over (partition by cs.mid order by cs.total_spent desc) as rank_desc,
rank() over (partition by cs.mid order by cs.total_spent asc) as rank_asc
from customer_spending cs
)
select merchants.name as company_name,
customers.full_name as customer_name,
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
company_name customer_name total_spent spending_type
Acer Inez Long 31901.019999999993 least
Acer Dean Heath 75230.28999999998 most
Apple Inez Long 32251.099999999988 least
Apple Clementine Travis 84551.10999999997 most
Dell Inez Long 31135.74000000001 least
Dell Clementine Travis 85611.54999999999 most
HP Inez Long 19769.905519999997 least
HP Clementine Travis 50951.63095999998 most
Result 106
Output
ENG

ER model:


Model*
EER Diagram
Tools
Scripting
Help
custom...
cid INT
full_name TEXT
city TEXT
state TEXT
Indexes
sell
mid INT
pid INT
price DOUBLE
quantity_available I...
Indexes
cont...
oid INT
pid INT
Indexes
place
cid INT
oid INT
order_date DA...
Indexes
orders
oid INT
shipping_method TE...
shipping_cost DOUBLE
Indexes
products
pid INT
name TEXT
category TEXT
description TE...
Indexes
mercha...
mid INT
name TEXT
city TEXT
state TEXT
Indexes