1. How many Customers do we have in the data?

SELECT count(DISTINCT customer\_id)

FROM customers;

2. What was the city with the most profit for the company in 2015 and how much was it?

SELECT o.shipping\_city, sum(od.order\_profits) AS profit, substr(o.order\_date, -4,4) as year

FROM orders as o

JOIN order\_details as od

ON o.order\_id = od.order\_id

WHERE substr(o.order\_date,-4,4) like '%2015'

GROUP BY 1

ORDER BY 2 DESC;

3. How many different cities do we have in the data?

SELECT count(DISTINCT shipping\_city) as number\_of\_cities

FROM orders;

4. Show the total spent by customers from low to high.

SELECT o.customer\_id as customer\_id, sum(od.order\_sales) as total\_sale

FROM customers as c

JOIN orders as o

ON c.customer\_id = o.customer\_id

JOIN order\_details as od

ON o.order\_id = od.order\_id

GROUP BY 1

ORDER BY 2;

5. What is the most profitable City in the State of Tennessee?

SELECT o.shipping\_city as city, o.shipping\_state as state, sum(od.order\_profits) as profits

FROM orders as o

JOIN order\_details as od

ON o.order\_id = od.order\_id

WHERE shipping\_state = 'Tennessee'

GROUP BY 1

ORDER BY 3 DESC;

6. What’s the average annual profit for that city across all years in that city?

SELECT o.shipping\_city as city, avg(od.order\_profits) as avg\_profits

FROM orders as o

JOIN order\_details as od

ON o.order\_id = od.order\_id

WHERE shipping\_city = 'Lebanon'

GROUP BY 1

ORDER BY 2 DESC;

7. What is the distribution of customer types in the data?

SELECT c.customer\_segment as customer\_type, count(c.customer\_segment) as total\_count

FROM customers as c

GROUP BY 1;

8. What’s the most profitable product category on average in Iowa across all years?

SELECT p.product\_category, avg(od.order\_profits) as avg\_profit

FROM orders as o

JOIN order\_details as od

ON o.order\_id = od.order\_id

JOIN product as p

ON od.product\_id = p.product\_id

WHERE o.shipping\_state = 'Iowa'

GROUP BY 1

ORDER BY 2 DESC;

9. What is the most popular product in that category across all states in 2016?

SELECT p.product\_category, p.product\_name, sum(od.quantity) as quantity, substr(o.order\_date, -4,4) as year

FROM orders as o

JOIN order\_details as od

ON o.order\_id = od.order\_id

JOIN product as p

ON od.product\_id = p.product\_id

WHERE p.product\_category = 'Furniture' AND substr(o.order\_date,-4,4) like '%2016'

GROUP BY 1,2

ORDER BY 3 DESC;

10. Which customer got the most discount in the data? (in total amount)

SELECT c.customer\_name, sum(od.order\_discount) as total\_discount

FROM customers as c

JOIN orders as o

ON c.customer\_id = o.customer\_id

JOIN order\_details as od

ON o.order\_id = od.order\_id

GROUP BY 1

ORDER BY 2 DESC;

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11. How widely did monthly profits vary in 2018?

SELECT

cast(substr(orders.order\_date,INSTR(orders.order\_date,'/') -2,2) as INT) as month,SUM(order\_Details.order\_profits) as profit,

lag( SUM(order\_Details.order\_profits), 1,0) OVER (ORDER BY substr(orders.order\_date,INSTR(orders.order\_date, '/') -2,2) ) previous\_month, substr(orders.order\_date, -4, 4) as year

FROM order\_details

JOIN orders ON

orders.order\_id = order\_details.order\_id

WHERE year = '2018'

GROUP BY month

ORDER BY month ASC

12. Which order was the highest in 2015?

SELECT od.order\_id, sum(od.order\_sales) as total\_sale, substr(o.order\_date, -4,4) as year

FROM orders as o

JOIN order\_details as od

on o.order\_id = od.order\_id

WHERE substr(o.order\_date,-4,4) like '%2015'

GROUP BY 1

ORDER BY 2 DESC;

13. What was the rank of each city in the East region in 2015?

SELECT o.shipping\_city as city,

RANK () OVER (ORDER BY sum(od.quantity) DESC) as city\_rank

FROM orders as o

JOIN order\_details as od

on o.order\_id = od.order\_id

WHERE substr(o.order\_date,-4,4) like '%2015' AND o.shipping\_region = 'East'

GROUP BY 1;

14. Join all DB tables into one dataset that includes all unique columns and download it as a csv file. In the second part of the project, you're gonna work with this one table.

SELECT c.customer\_id, o.order\_id, od.order\_details\_id,od.product\_id, c.customer\_name, c.customer\_segment,

o.order\_date,o.shipping\_city, o.shipping\_state,o.shipping\_region,o.shipping\_country,o.shipping\_postal\_code,o.shipping\_date,o.shipping\_mode,

od.quantity, od.order\_discount,od.order\_profits,od.order\_profit\_ratio,od.order\_sales,

p.product\_name,p.product\_category,p.product\_subcategory,p.product\_manufacturer

FROM customers as c

JOIN orders as o

ON c.customer\_id = o.customer\_id

JOIN order\_details as od

on o.order\_id = od.order\_id

JOIN product as p

on od.product\_id = p.product\_id

GROUP BY c.customer\_id;

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SELECT \*

FROM customers

JOIN (orders JOIN (order\_details JOIN product USING(product\_id)) USING(order\_id)) USING(customer\_id)

GROUP BY customers.customer\_id;