**How many Customers do we have in the data?**

***795***

SELECT COUNT(DISTINCT customer\_id)

FROM customers;

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

***New York City 14753***

SELECT o.shipping\_city, SUM(od.order\_profits)

FROM orders AS o

JOIN order\_details od

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

WHERE order\_date LIKE '%2015'

GROUP BY o.shipping\_city

ORDER BY 2 DESC

LIMIT 1;

**How many different cities do we have in the data?**

***531***

SELECT COUNT(\*)

FROM

(SELECT shipping\_city

FROM orders

GROUP BY shipping\_city)

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

SELECT customer\_name,customer\_id, SUM(order\_sales)

FROM customers

INNER JOIN orders

USING(customer\_id)

INNER JOIN order\_details

USING (order\_id)

GROUP BY 1,2

ORDER BY 3

**What is the most profitable City in the State of Tennessee?**

***Lebanon 83***

SELECT o.shipping\_city, SUM(od.order\_profits)

FROM orders AS o

INNER JOIN order\_details as od

USING (order\_id)

GROUP BY 1

HAVING o.shipping\_state= 'Tennessee'

ORDER BY 2 DESC

LIMIT 1

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

***2016 6.0***

***2017 18.0***

***2018 59.0***

SELECT SUBSTR(o.order\_date,-4,4) as year, AVG(od.order\_profits)

FROM orders AS o

INNER JOIN order\_details as od

USING (order\_id)

WHERE o.shipping\_state= 'Tennessee' AND o.shipping\_city='Lebanon'

GROUP BY 1

**What is the distribution of customer types in the data?**

***Consumer 410***

***Corporate 237***

***Home Office 148***

SELECT customer\_segment, COUNT(customer\_segment)

FROM customers

GROUP BY 1

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

**Furniture 130.25**

SELECT p.product\_category, AVG(od.order\_profits)

FROM product AS p

JOIN order\_details AS od

USING (product\_id)

JOIN orders AS o

USING (order\_id)

WHERE o.shipping\_state='Iowa'

GROUP BY 1

ORDER BY 2 DESC

LIMIT 1

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

**Global Push Button Manager's Chair, Indigo 22**

SELECT p.product\_name,SUM(od.quantity)

FROM product AS p

JOIN order\_details AS od

USING (product\_id)

JOIN orders AS o

USING (order\_id)

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

GROUP BY 1

ORDER BY 2 DESC

LIMIT 1

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

***Sean Miller 11988.9***

SELECT c.customer\_name, SUM(od.order\_sales\*od.order\_discount) as total\_discount\_amount

FROM order\_details AS od

JOIN orders AS o

USING (order\_id)

JOIN customers AS c

USING (customer\_id)

GROUP BY 1

ORDER BY 2 DESC

LIMIT 1

**How widely did monthly profits vary in 2018?**

**3 14758**

**9 10987**

**10 9272**

**11 9217**

**8 9034**

**12 8473**

**6 8226**

**1 7137**

**7 6951**

**5 6342**

**2 1612**

**4 934**

**Profit range 13824**

WITH total\_profit\_per\_month

AS

(

SELECT SUBSTR(o.order\_date,1,INSTR(o.order\_date,'/')-1) as month, SUM(od.order\_profits) as total\_profit

FROM order\_details AS od

JOIN orders AS o

USING (order\_id)

WHERE SUBSTR(o.order\_date,-4,4)='2018'

GROUP BY 1

ORDER BY 2 DESC

)

SELECT MAX( total\_profit)-MIN(total\_profit) as profit\_range

FROM total\_profit\_per\_month

WITH diff AS

(

WITH total\_profit\_per\_month

AS

(

SELECT CAST((SUBSTR(o.order\_date,1,INSTR(o.order\_date,'/')-1)) AS INTEGER)as month, SUM(od.order\_profits) as total\_profit

FROM order\_details AS od

JOIN orders AS o

USING (order\_id)

WHERE SUBSTR(o.order\_date,-4,4)='2018'

GROUP BY 1

)

SELECT month, total\_profit,

LAG (total\_profit,1,0) OVER (ORDER BY month) previous\_profit

FROM total\_profit\_per\_month

)

SELECT total\_profit-previous\_profit AS difference

FROM diff

ORDER BY ABS(total\_profit-previous\_profit)DESC

**Which order was the highest in 2015?**

***CA-2015-145317 23660***

SELECT o.order\_id, SUM(od.order\_sales)

FROM orders as o

JOIN order\_details as od

USING(order\_id)

WHERE SUBSTR(o.order\_date,-4,4)='2015'

GROUP BY 1

ORDER BY 2 DESC

LIMIT 1

**What was the rank of each city in the East region in 2015**

SELECT o.shipping\_city, SUM(od.quantity) as order\_quantity,

RANK() OVER

(ORDER BY SUM(od.quantity)DESC)[rank]

FROM orders AS o

JOIN order\_details AS od

USING(order\_id)

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

GROUP BY 1

**Join all DB tables into one dataset that includes all unique columns and download it as a csv file**

CREATE TABLE "coodp" ( "customer\_id" INTEGER, "customer\_name" TEXT, "customer\_segment" TEXT,

"order\_details\_id" INTEGER, "order\_id" TEXT, "product\_id" INTEGER, "quantity" INTEGER, "order\_discount" INTEGER, "order\_profits" INTEGER, "order\_profit\_ratio" REAL, "order\_sales" INTEGER,

"order\_date" TEXT, "shipping\_city" TEXT, "shipping\_state" TEXT, "shipping\_region" TEXT, "shipping\_country" TEXT, "shipping\_postal\_code" INTEGER, "shipping\_date" TEXT, "shipping\_mode" TEXT,

"product\_name" TEXT, "product\_category" TEXT, "product\_subcategory" TEXT, "product\_manufacturer" TEXT,

PRIMARY KEY("order\_id","customer\_id","product\_id"))

INSERT INTO "coodp"

SELECT customer\_id,customer\_name,customer\_segment,

order\_details\_id, order\_id, product\_id, quantity, order\_discount,

order\_profits, order\_profit\_ratio, order\_sales,

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

product\_name, product\_category, product\_subcategory, product\_manufacturer

FROM customers

JOIN orders

USING (customer\_id)

JOIN order\_details

USING (order\_id)

JOIN product

USING (product\_id)