JENSON USA

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TABLE VIEW

EER DIAGRAM

order_items
- order_id INT
- item_id INT
- product_id INT
- quantity INT
- list_price DECIMAL(10,2)
- discount DECIMAL(4,2)
- Indexes

orders
- order_id INT
- customer_id INT
- order_status TINYI...
- order_date DATE
- required_date DATE
- shipped_date DATE
- store_id INT
- staff_id INT
- Indexes

customers
- customer_id INT
- first_name VARCHAR(25...
- last_name VARCHAR(255)
- phone VARCHAR(25)
- email VARCHAR(255)
- street VARCHAR(255)
- city VARCHAR(50)
- state VARCHAR(25)
- zip_code VARCHAR(5)
- Indexes

products
- product_id INT
- product_name VARCHAR(255)
- brand_id INT
- category_id INT
- model_year SMALLINT
- list_price DECIMAL(10,2)
- Indexes

stocks
- store_id INT
- product_id I...
- quantity INT
- Indexes
  - PRIMARY
  - product_id

staffs
- staff_id INT
- first_name VARCHAR(50)
- last_name VARCHAR(50)
- email VARCHAR(255)
- phone VARCHAR(25)
- active TINYINT
- store_id INT
- manager_id INT
- Indexes

stores
- store_id INT
- store_name VARCHAR(25...
- phone VARCHAR(25)
- email VARCHAR(255)
- street VARCHAR(255)
- city VARCHAR(255)
- state VARCHAR(10)
- zip_code VARCHAR(5)
- Indexes

brands
- brand_id INT
- brand_name VARCHAR(255)
- Indexes

categories
- category_id INT
- category_name VARCHAR(25...
- Indexes

1. Find the total number of products sold by each store along with the store name.
2. Calculate the cumulative sum of quantities sold for each product over time.
3. Find the product with the highest total sales (quantity * price) for each cat
4. Find the customer who spent the most money on orders.
5. Find the highest-priced product for each category name.
6. Find the total number of orders placed by each customer per store.
7. Find the names of staff members who have not made any sales.
8. Find the top 3 most sold products in terms of quantity.
9. Find the median value of the price list.
10. List all products that have never been ordered.(use Exists)
11. List the names of staff members who have made more sales than the average number of sales by all staff members.
12. Identify the customers who have ordered all types of products (i.e., from every category).

WHAT WE DO!

1.FIND THE TOTAL NUMBER OF PRODUCTS SOLD BY EACH STORE ALONG WITH THE STORE NAME.

```sql
select stores.store_name,count(order_items.quantity) total_quantity_sold
from stores join orders
on stores.store_id = orders.store_id
join order_items
on order_items.order_id = orders.order_id
group by stores.store_name
```

store_name	total_quantity_sold
Santa Cruz Bikes	1006
Baldwin Bikes	3195
Rowlett Bikes	521

2. CALCULATE THE CUMULATIVE SUM OF QUANTITIES SOLD FOR EACH PRODUCT OVER TIME.

```sql
select products.product_name,orders.order_date,order_items.quantity,
sum(order_items.quantity)
over(partition by products.product_id order by orders.order_date) as cumulative_quantity
from products join order_items
on products.product_id = order_items.product_id
join orders
on order_items.order_id = orders.order_id
```

product_name	order_date	quantity	cumulative_quantity
Ritchey Timberwolf Frameset - 2016	2016-01-03	2	2
Ritchey Timberwolf Frameset - 2016	2016-01-14	2	4
Ritchey Timberwolf Frameset - 2016	2016-01-18	1	5
Ritchey Timberwolf Frameset - 2016	2016-02-05	1	6
Ritchey Timberwolf Frameset - 2016	2016-02-09	1	7
Ritchey Timberwolf Frameset - 2016	2016-02-26	1	8
Ritchey Timberwolf Frameset - 2016	2016-02-28	1	10
Ritchey Timberwolf Frameset - 2016	2016-02-28	1	10
Ritchey Timberwolf Frameset - 2016	2016-03-08	1	11
Ritchey Timberwolf Frameset - 2016	2016-03-14	2	13
Ritchey Timberwolf Frameset - 2016	2016-03-20	2	17
Ritchey Timberwolf Frameset - 2016	2016-03-20	2	17
Ritchey Timberwolf Frameset - 2016	2016-03-21	1	18

3. FIND THE PRODUCT WITH THE HIGHEST TOTAL SALES (QUANTITY * PRICE) FOR EACH CATEGORY.

```sql
WITH a AS (SELECT products.product_id,products.product_name,products.category_id,
SUM(order_items.quantity * order_items.list_price) AS total_sales
FROM products JOIN order_items
ON products.product_id = order_items.product_id
GROUP BY products.product_id,products.product_name,products.category_id),
b AS (SELECT a.category_id, MAX(a.total_sales) AS max_sales FROM a GROUP BY a.category_id)
SELECT categories.category_name,a.product_name, a.total_sales
FROM a JOIN b
ON a.category_id = b.category_id
AND a.total_sales = b.max_sales
JOIN categories
ON categories.category_id = a.category_id;
```

category_name	product_name	total_sales
Children Bicycles	Electra Girl's Hawaii 1 (20-inch) - 2015/2016	4619846.00
Comfort Bicycles	Electra Townie Original 7D EQ - 2016	8039866.00
Cruisers Bicycles	Electra Townie Original 7D EQ - 2016	9359844.00
Cyclocross Bicycles	Surly Straggler 650b - 2016	25382949.00
Electric Bikes	Trek Conduit+ - 2016	43499855.00
Mountain Bikes	Trek Slash 8 275 - 2016	61599846.00
Road Bikes	Trek Domane SLR 6 Disc - 2017	23649957.00

4. FIND THE CUSTOMER WHO SPENT THE MOST MONEY ON ORDERS.

```sql
select concat(customers.first_name," ",customers.last_name) as customer_name,
round(sum(order_items.list_price*order_items.quantity*(1-(order_items.discount/100))),2) as total_money_spent
from customers join orders
using (customer_id)
join order_items
using (order_id)
group by customer_name
order by total_money_spent desc
limit 1
```

	customer_name	total_money_spent
▶	Pamelia Newman	3729598.42

5. FIND THE HIGHEST-PRICED PRODUCT FOR EACH CATEGORY NAME.

```
SELECT categories.category_name, MAX(products.product_name) AS product_name,
MAX(products.list_price) AS highest_price
FROM products JOIN categories
using(category_id)
GROUP BY categories.category_name
ORDER BY categories.category_name;
```

category_name	product_name	highest_price
Children Bicycles	Trek Superfly 24 - 2017/2018	48999.00
Comfort Bicycles	Sun Bicycles Streamway 7 - 2017	259999.00
Cruisers Bicycles	Sun Bicycles Revolutions 24 - Girl's - 2017	299999.00
Cyclocross Bicycles	Trek Crockett 7 Disc - 2018	399999.00
Electric Bikes	Trek XM700+ Lowstep - 2018	499999.00
Mountain Bikes	Trek X-Caliber Frameset - 2018	529999.00
Road Bikes	Trek Silque SLR 8 Women's - 2017	1199999.00

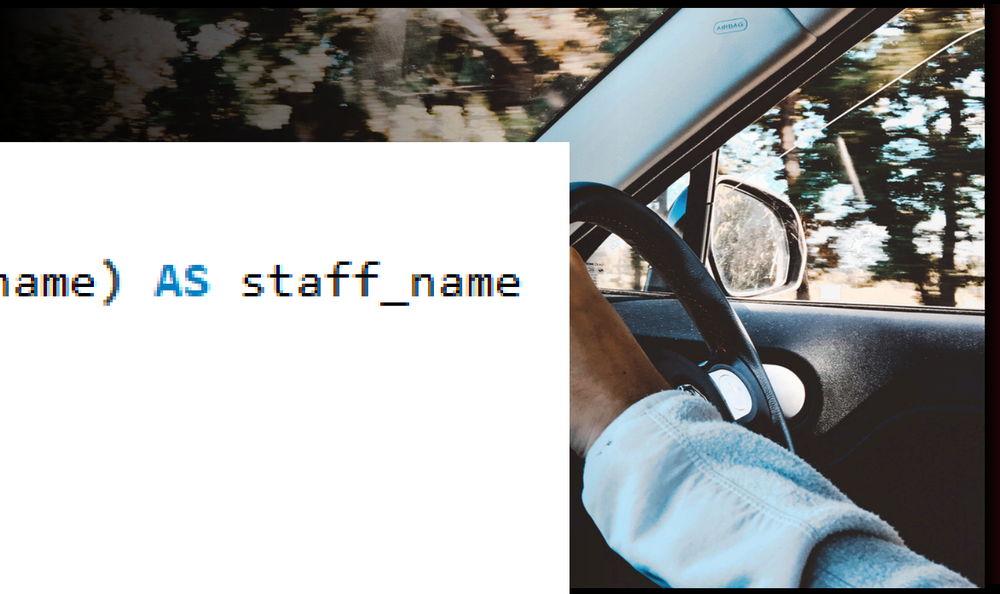
6. FIND THE TOTAL NUMBER OF ORDERS PLACED BY EACH CUSTOMER PER STORE.

```
select customers.customer_id,concat(customers.first_name," ",customers.last_name) as customer_name,
stores.store_name,count(orders.order_id) as total_order
from orders join customers
using(customer_id)
join stores
on stores.store_id = orders.store_id
group by customers.customer_id,
customers.first_name,customers.last_name,stores.store_name
order by stores.store_name,customer_name
```

customer_id	customer_name	store_name	total_order
1174	Aaron Knapp	Baldwin Bikes	1
338	Abbey Pugh	Baldwin Bikes	1
75	Abby Gamble	Baldwin Bikes	2
1085	Adam Thornton	Baldwin Bikes	1
195	Addie Hahn	Baldwin Bikes	1
22	Adelle Larsen	Baldwin Bikes	2
1023	Adena Blake	Baldwin Bikes	1
1412	Adrien Hunter	Baldwin Bikes	1
1252	Adriene Rollins	Baldwin Bikes	1
527	Afton Juarez	Baldwin Bikes	1
769	Agatha Melton	Baldwin Bikes	1
771	Agnes Sims	Baldwin Bikes	1
1181	Agustina Lawr...	Baldwin Bikes	1
1322	Ai Forbes	Baldwin Bikes	1
937	Aida Koch	Baldwin Bikes	1

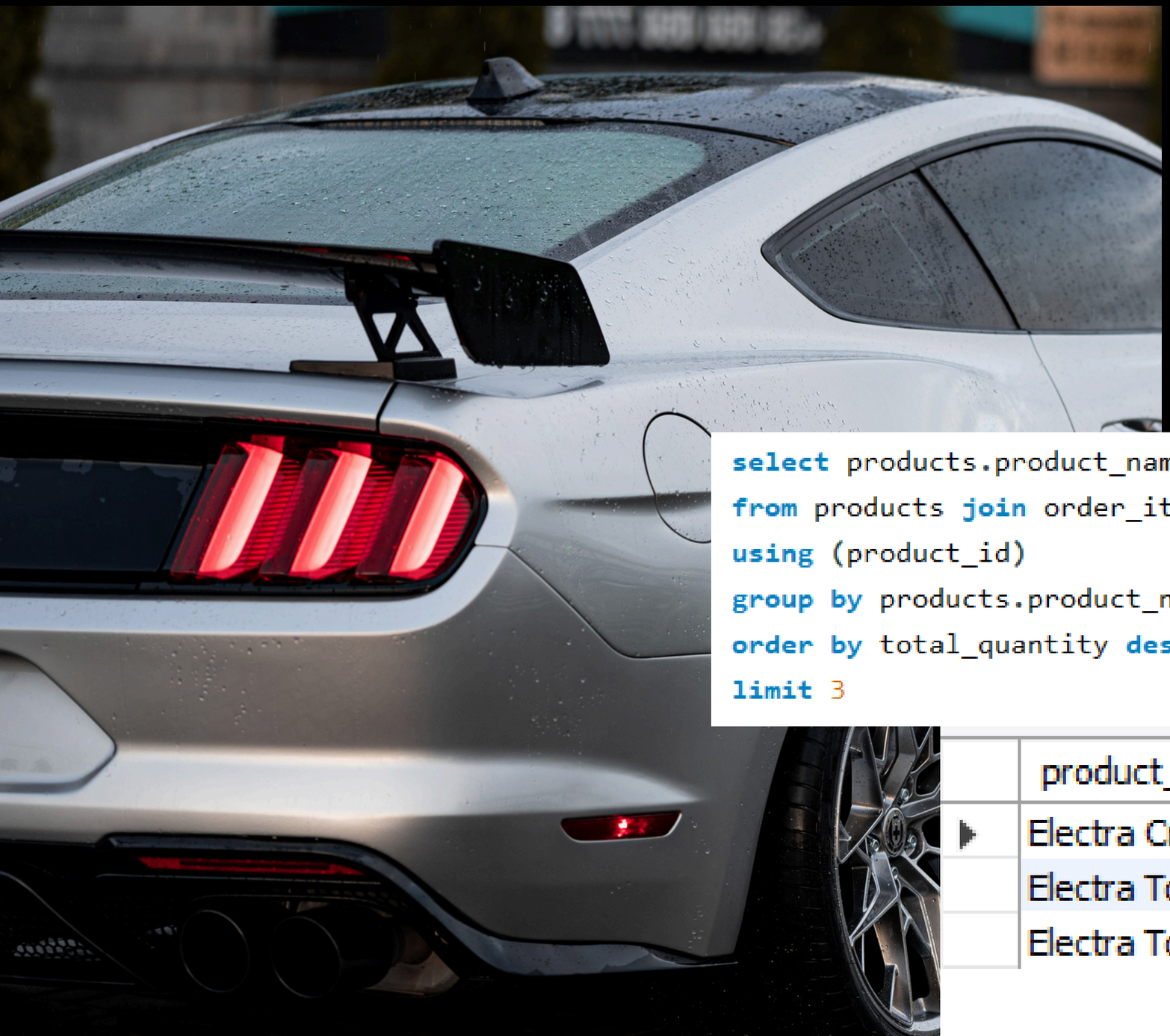
customer_id	customer_name	store_name	total_order
1295	Alline Beasley	Baldwin Bikes	1
640	Allison Nolan	Baldwin Bikes	1
1013	Alma Peck	Baldwin Bikes	1
1168	Almeta Benjamin	Baldwin Bikes	1
204	Alpha King	Baldwin Bikes	1
798	Alyse Jacobson	Baldwin Bikes	1
368	Alysha Powers	Baldwin Bikes	1
1306	America Swanson	Baldwin Bikes	1
333	Ami Mcmahon	Baldwin Bikes	1
995	Amina Salazar	Baldwin Bikes	1
683	Amparo Burks	Baldwin Bikes	1
309	Anderson Martin	Baldwin Bikes	1
520	Andreas Herman	Baldwin Bikes	1
525	Andreas Mayer	Baldwin Bikes	1
197	Andy O'neill	Baldwin Bikes	1

7.FIND THE NAMES OF STAFF MEMBERS WHO HAVE NOT MADE ANY SALES.



```sql
SELECT
    CONCAT(staffs.first_name, ' ', staffs.last_name) AS staff_name
FROM staffs
LEFT JOIN orders
    ON staffs.staff_id = orders.staff_id
WHERE orders.order_id IS NULL;
```

staff_name
Fabiola Jackson
Virgie Wiggins
Jannette David
Bernardine Houston



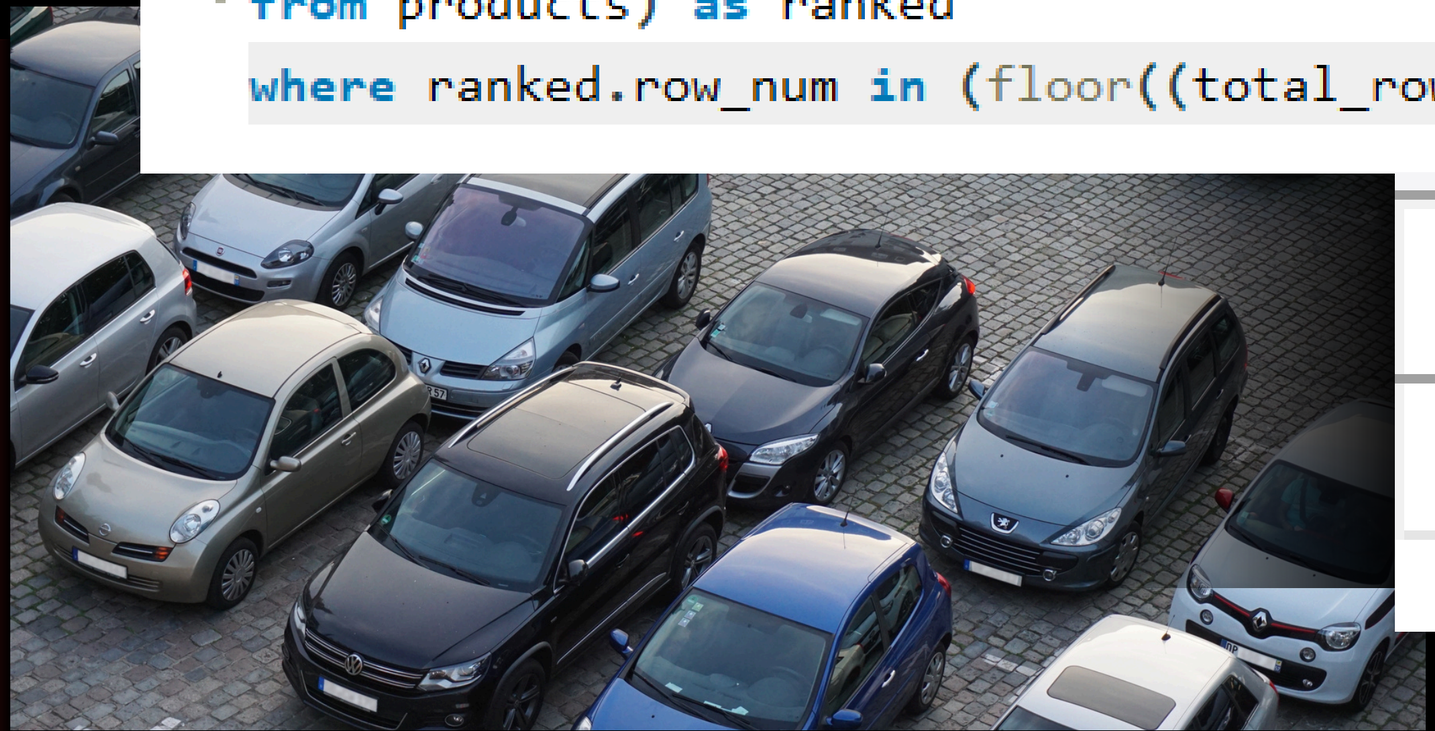
8. FIND THE TOP 3 MOST SOLD PRODUCTS IN TERMS OF QUANTITY.

```sql
select products.product_name,sum(order_items.quantity) as total_quantity
from products join order_items
using (product_id)
group by products.product_name
order by total_quantity desc
limit 3
```

product_name	total_quantity
Electra Cruiser 1 (24-Inch) - 2016	296
Electra Townie Original 7D EQ - 2016	290
Electra Townie Original 21D - 2016	289

9 . FIND THE MEDIAN VALUE OF THE PRICE LIST.

```sql
select  avg(ranked.list_price) as median_price
from
(select products.list_price,
row_number() over(order by products.list_price) as row_num,
count(*) over() as total_rows
from products) as ranked
where ranked.row_num in (floor((total_rows+1)/2),ceil((total_rows+1)/2))
```



median_price
74999.000000

10. LIST ALL PRODUCTS THAT HAVE NEVER BEEN ORDERED.(USE EXISTS)

```
select products.product_id,products.product_name
from products
where not exists (select * from order_items where order_items.product_id = products.product_id)
```

product_id	product_name
1	Trek 820 - 2016
121	Surly Krampus Frameset - 2018
125	Trek Kids' Dual Sport - 2018
154	Trek Domane SLR 6 Disc Women's - 2018
195	Electra Townie Go! 8i Ladies' - 2018
267	Trek Precaliber 12 Girl's - 2018
284	Electra Savannah 1 (20-inch) - Girl's - 2018
291	Electra Sweet Ride 1 (20-inch) - Girl's - 2018
316	Trek Checkpoint ALR 4 Women's - 2019
317	Trek Checkpoint ALR 5 - 2019
318	Trek Checkpoint ALR 5 Women's - 2019
319	Trek Checkpoint SL 5 Women's - 2019
320	Trek Checkpoint SL 6 - 2019
321	Trek Checkpoint ALR Frameset - 2019
NULL	NULL

List the names of staff members who have made more sales than the average number of sales by all staff members.

```sql
select staffs.staff_id,concat(staffs.first_name," ",staffs.last_name) AS staff_name,
count(orders.order_id) as total_order
from staffs join orders
using (staff_id)
group by staffs.staff_id,staffs.first_name,staffs.last_name
having count(orders.order_id)> (select avg(staff_sales.sales_count) from
(select count(orders.order_id) as sales_count
from staffs join orders
using (staff_id)
group by staff_id) as staff_sales)
```

Your paragraph text

staff_id	staff_name	total_order
6	Marcelene Boyer	553
7	Venita Daniel	540

12. IDENTIFY THE CUSTOMERS WHO HAVE ORDERED ALL TYPES OF PRODUCTS (I.E., FROM EVERY CATEGORY).

```sql
select customers.customer_id,concat(customers.first_name," ",customers.last_name) as full_name
from customers join orders
using (customer_id)
join order_items
on orders.order_id=order_items.order_id
join products
on order_items.product_id = products.product_id
join categories
on products.category_id = categories.category_id
group by customers.customer_id,customers.first_name,customers.last_name
having count(distinct(products.category_id))=(
select count(category_id) from categories);
```

	customer_id	full_name
▶	9	Genoveva Baldwin


THANK
YOU