SQL-4 JOINS_2

Quiz

- Which is the right query to all info about a customer named “Rajesh”?
  - Select * from DB.tbl where customer_name==“Rajesh”
  - Select customer_name from DB.tbl where customer_name=“Rajesh”
  - Select * from DB.tbl where customer_name=“Rajesh”-correct
  - Select * from DB.tbl where customer_name=“rajesh”
- To get all transaction made by customer “A” but not on the date “2019-02-04”?
  - Select * from DB.tbl where customer_name=”A” and date=“2019-02-04”
  - Select * from DB.tbl where customer_name=”A” and date<>“2019-02-04”-correct
  - Select * from DB.tbl where customer_name=”A” or date=“2019-02-04”
  - Select * from DB.tbl where customer_name=”A” or date<>“2019-02-04”
- Write a query to find if the last 3 letters of a colum_name is ‘ter’?
  - Select * from db.tbl where sub_str(customer_name, 3, 3) =“ter”
  - Select * from db.tbl where sub_str(customer_name, -3, 1) =“ter”
  - Select * from db.tbl where sub_str(customer_name, -3,) =“ter” - correct
  - Select * from db.tbl where sub_str(customer_name, 3,) =“ter”

Question: List all the products along with their product category name.

```
SELECT * FROM
farmers_market.product
LEFT JOIN farmers_market.product_category
ON product.product_category_id = product_category.product_category_id
```

With table aliasing:

```
SELECT
	p.product_id,
	p.product_name,
	pc.product_category_id,
	pc.product_category_name
FROM farmers_market.product AS p
LEFT JOIN farmers_market.product_category AS pc
ON p.product_category_id = pc.product_category_id
```

Get a list of customers' zip codes who made a purchase on 2019-04-06.

```
select distinct c.customer_zip from
farmers_market.customer c
join farmers_market.customer_purchases cp
on c.customer_id = cp.customer_id
where cp.market_date = '2019-04-06'
```

Question: Get all the Customers who have purchased nothing from the market yet.

```
select c.*, cp.*
from farmers_market.customer c
left join farmers_market.customer_purchases cp on
c.customer_id = cp.customer_id
where cp.product_id is NULL

#Only customer information
select c.*
from farmers_market.customer c
left join farmers_market.customer_purchases cp on
c.customer_id = cp.customer_id
where cp.product_id is NULL
```

Q: A simpler question: List all the customers and their associated purchases?

```
SELECT *
FROM farmers_market.customer_purchases AS cp
RIGHT JOIN farmers_market.customer AS c
ON c.customer_id = cp.customer_id
```

Note: You can also use left join by swapping the tables

Question: Let's say we want details about all farmer's market booths (even if not assigned) and every vendor booth assignment for every market date with the details of the vendor.

```
SELECT
        b.booth_number,
        b.booth_type,
        vba.market_date,
        v.vendor_id,
        v.vendor_name,
        v.vendor_type
FROM farmers_market.booth AS b
LEFT JOIN farmers_market.vendor_booth_assignments AS vba
        ON b.booth_number = vba.booth_number
LEFT JOIN farmers_market.vendor AS v
        ON v.vendor_id = vba.vendor_id
```

Combine the sales of Apple and Samsung present in 2 separate tables.

```
select Date, Product, Sales
from temp_sales.Apple_sales
```

Row	PRODUCT	SALES	DATE
1	Iphone 11	340000	Jan-1-2023
2	Iphone 14	430000	Jan-1-2023
3	Ipad pro	820000	Jan-1-2023
4	Mac book 11	1233000	Jan-1-2023

```
select Date, Product, Sales
from temp_sales.Samsung_sales
```

DATE	PRODUCT	SALES
Jan-2-2023	Monitor	85000
Jan-2-2023	Galaxy Note pro	107500
Jan-3-2023	Galaxy s9	205000
Jan-3-2023	Galaxy Note	308250

```
# Union
select Date, Product, Sales
from temp_sales.Apple_sales
union ALL
select Date, Product, Sales
from temp_sales.Samsung_sales
```

DATE	PRODUCT	SALES
Jan-2-2023	Monitor	85000
Jan-2-2023	Galaxy Note pro	107500
Jan-3-2023	Galaxy s9	205000
Jan-3-2023	Galaxy Note	308250
Jan-1-2023	Iphone 11	340000
Jan-1-2023	Iphone 14	430000
Jan-1-2023	Ipad pro	820000
Jan-1-2023	Mac book 11	1233000

Find all customers who have deleted their account and also those who are yet to make a purchase along with active customers

select * from temp_sales.customer_info

customer_id	Name
c5	Hugh
c8	Craig
c3	John
c6	Jackson
c4	Ken
c2	Aaron
c7	Brandon

select * from temp_sales.transaction

Transaction_date	Customer_id	Sales
2019-01-01	c1	10
2019-03-01	c1	20
2019-03-01	c2	30
2019-03-01	c3	40
2019-06-01	c4	10
2019-06-01	c5	30
2019-07-01	c5	10
2019-08-01	c5	30

 # Outer join(Big Query)

```
select * from temp_sales.transaction t
full outer join temp_sales.customer_info c
on t.Customer_id=c.customer_id
order by c.customer_id
```

Transaction_date	Customer_id	Sales	customer_id_1	Name
2019-01-01	c1	10	*null*	*null*
2019-03-01	c1	20	*null*	*null*
2019-03-01	c2	30	c2	Aaron
2019-03-01	c3	40	c3	John
2019-06-01	c4	10	c4	Ken
2019-06-01	c5	30	c5	Hugh
2019-07-01	c5	10	c5	Hugh
2019-08-01	c5	30	c5	Hugh
null	*null*	*null*	c6	Jackson
null	*null*	*null*	c7	Brandon
null	*null*	*null*	c8	Craig

Find all customers who have deleted their account and also those who are yet to make a purchase along with active customers

```
# Outer join My SQL Workbench
 (select * from temp_sales.transaction t left join temp_sales.customer_info c
on t.Customer_id=c.customer_id)
union
(select * from temp_sales.transaction t right join temp_sales.customer_info c
on t.Customer_id=c.customer_id)
```

Transaction_date	Customer_id	Sales	customer_id_1	Name
2019-01-01	c1	10	*null*	*null*
2019-03-01	c1	20	*null*	*null*
2019-03-01	c2	30	c2	Aaron
2019-03-01	c3	40	c3	John
2019-06-01	c4	10	c4	Ken
2019-06-01	c5	30	c5	Hugh
2019-07-01	c5	10	c5	Hugh
2019-08-01	c5	30	c5	Hugh
null	*null*	*null*	c6	Jackson
null	*null*	*null*	c7	Brandon
null	*null*	*null*	c8	Craig