Joins

→ Different types of Joins (Inner
Outer — Union
Left
Right
)

→ SELF Join

→ CROSS Join

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vendor_inv.

Q. Get me the details of all the vendors selling fresh fruits & vegetables with product names and the quantity of that product in their inventory.

Product category

Product

vendor_inventory

Joins

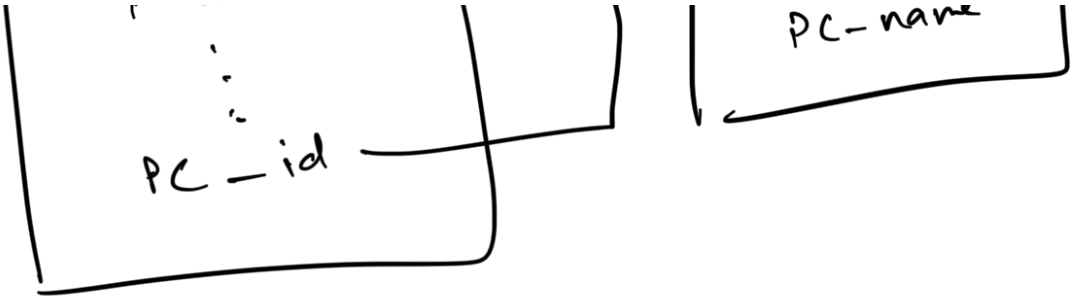
Q. List all the products along with their product category names.

Product

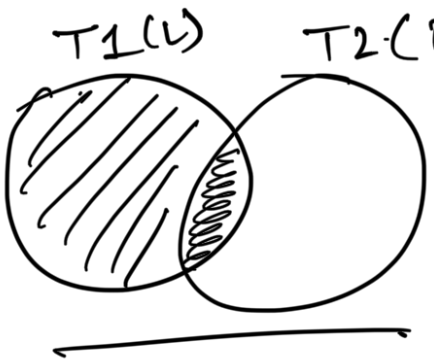
prod_id
prod_name

PC

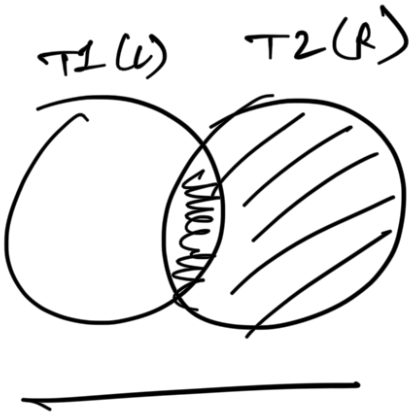
pc_id



Left Join



Right Join



Syntax:

SELECT

FROM [Left table] ← product

JOIN ← [JOIN TYPE] [RIGHT TABLE] ← pr_cat.

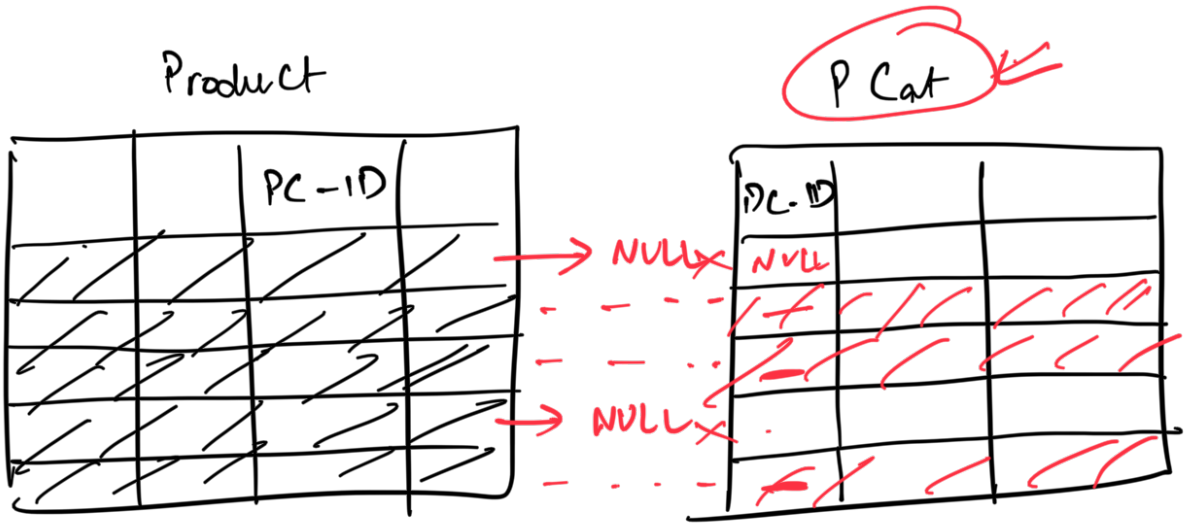
ON [left table].[field to match] = [right table].[field to match]

Product → Left

P.

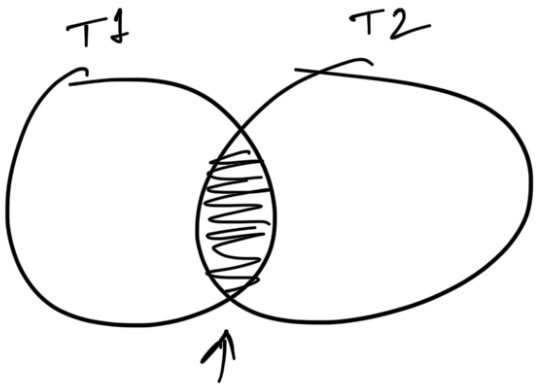
P.ID	P.Name	PC-ID	PC-Name
			NULL

Join

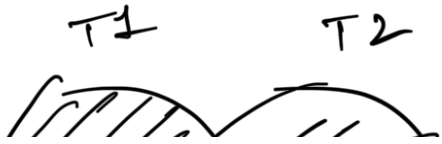


Q. Get a list of customers' zip codes who made a purchase on 2019-04-06

Inner Join



Outer Join (Full Join)



t1

id	- - - -
1	
1	
2	
2	
NULL	

t2

id	
1	
2	
3	
NULL	

Left Join

Right Join

Inner

Outer

Q Find out the customers who are either

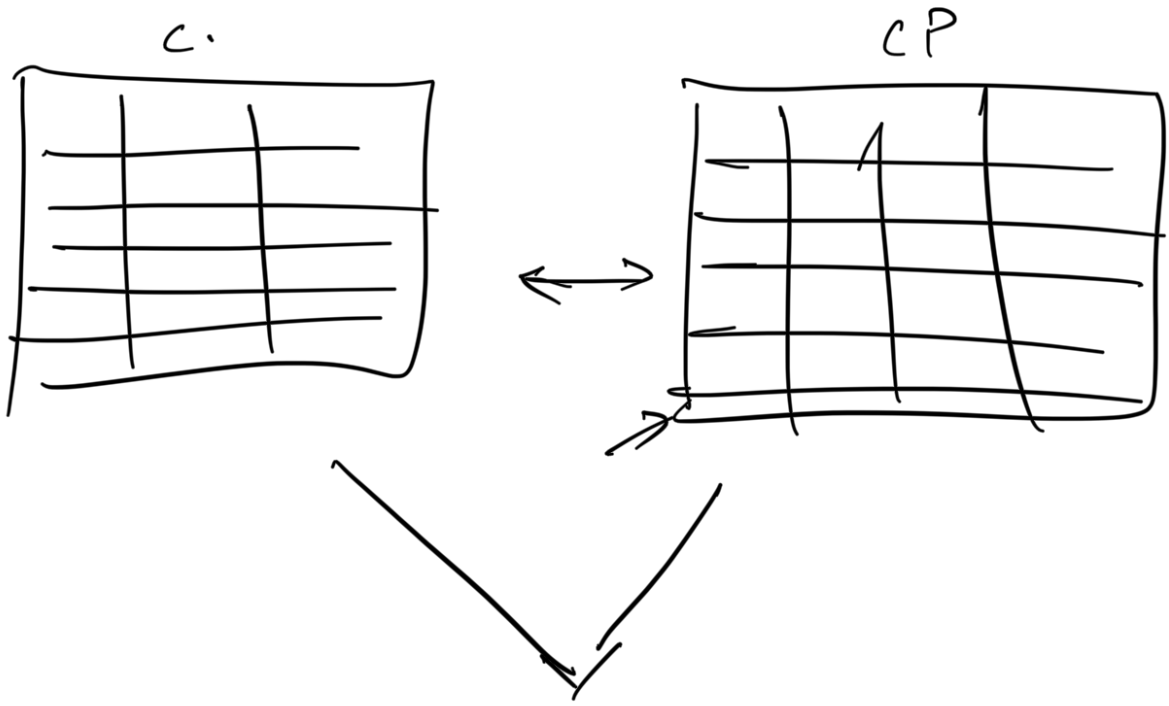
1. New to the market &
2. Or have deleted their account

→ These customers have not made any purchases. (Customer, customer purchases)

(X)

customer (X)

customer_purchase ✓



NULL

NULL

MySQL → Outer / Full Join

✓ Left Join

Union → Append the rows

Union → Deletes duplicates ✓

Right Join

Twice

2021

2022

UNION

Customer

C-ID	Name	zip
1	—	—
2	—	—
5	—	—

New

CP

C-ID	P-ID	TotalAmt
1	—	—
2	—	—
3	—	—

Deleted

Left

C-ID	Name	cp. C-ID	cp. TotalAmt
1	—	1	—
2	—	2	—
5	—	NULL	NULL

LEFT JOIN

WHERE cp.customer_id IS NULL

New Customer

RIGHT JOIN

C-ID	Name	cp.id	cp.totalamt
1	—	1	—
2	—	2	—
NULL	NULL	3	—

Right Join

C. C-ID IS NULL → Deleted accounts.

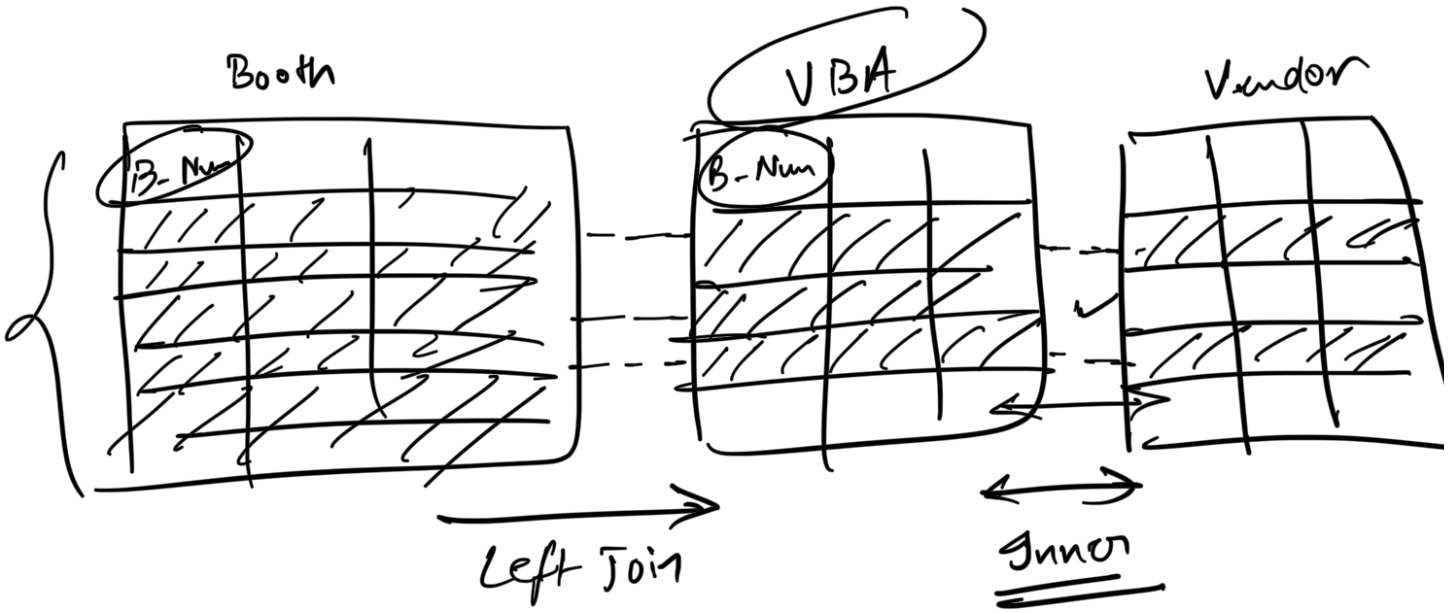
Q. Get details of all the booths and every VBA vendor booth assignment for every market date along with the vendor detail

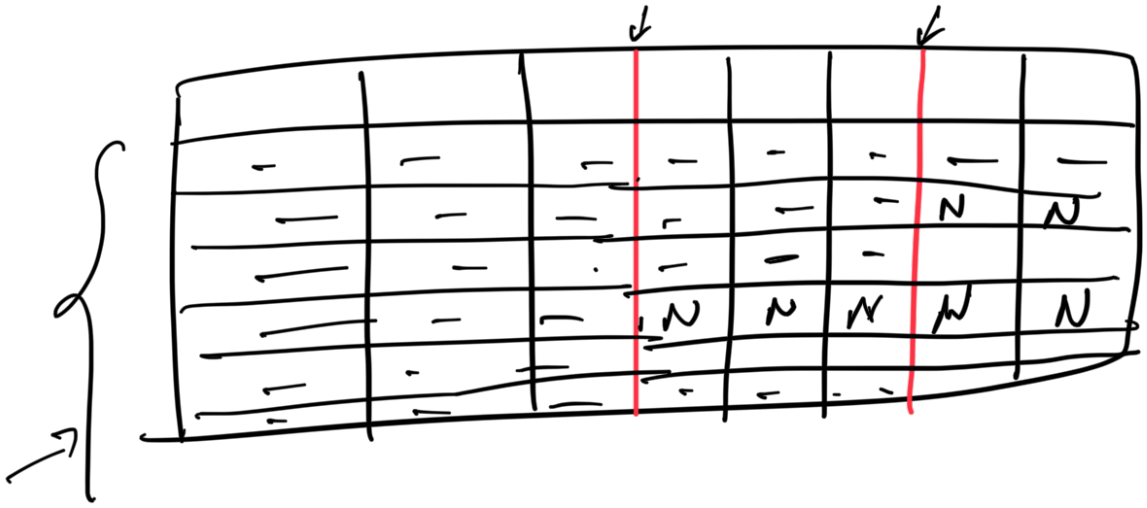
↑ vendor

3 ✓

→ 2 Joins

All Booths





d. For each employee, find out the name of their manager.

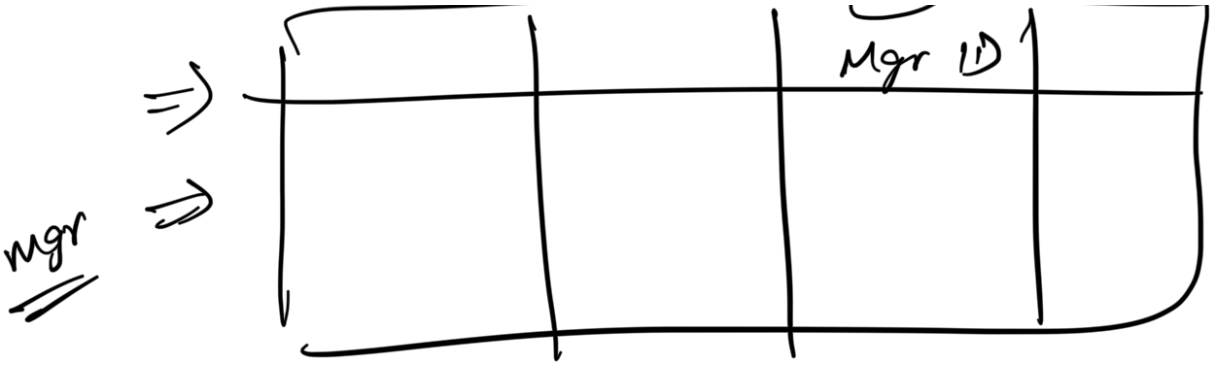
Emp-ID of the mgr.

Employee

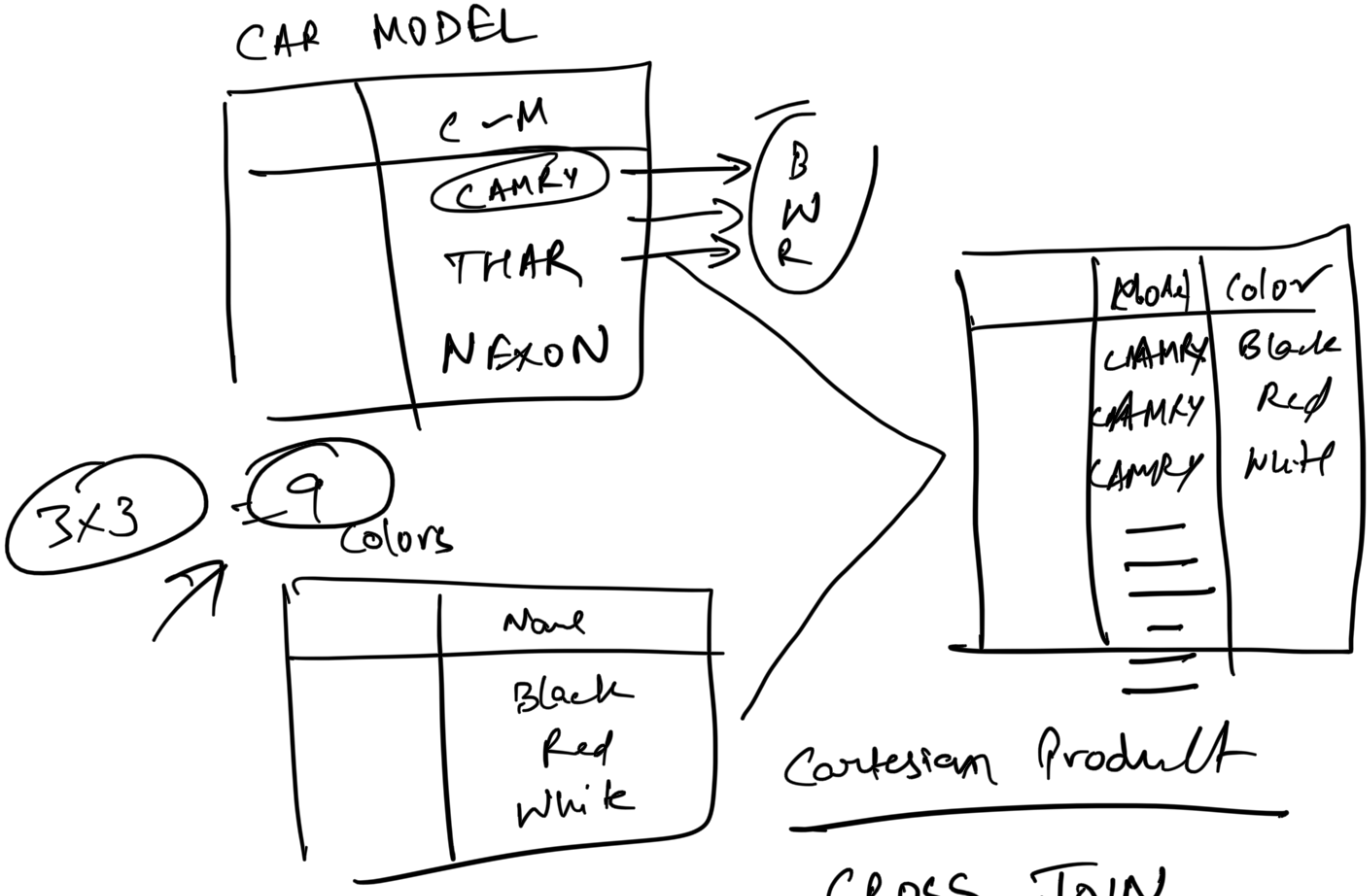
emp

Emp-ID	Name	Mgr_ID	Job title
1001		1003	
1002		1007	
1003		1008	
⋮		⋮	

emp ID



Self Join



Cartesian Product

CROSS JOIN

```
SELECT
        c. car_model
        c1 - color
FROM    cars    c
CROSS JOIN    colors c1
```

Cross

SELECT

FROM cars AS c, colors AS c1

FROM employees AS emp, employees AS mgr.

WHERE _____ = _____