

Joins Continued

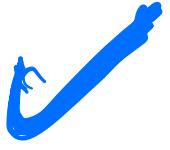
① Customers who are new to the mkt.

Customer (L)

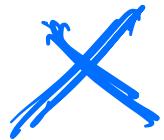
| c-id | | | |
|------|--|--|--|
| | | | |
| | | | |
| | | | |
| | | | |

purchase (R)

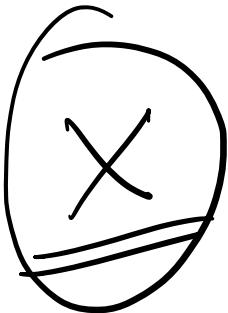
| c-id | | | |
|------|--|--|--|
| | | | |
| | | | |
| | | | |
| | | | |



left bin



detected



✓(R)

* Joining Multiple Tables

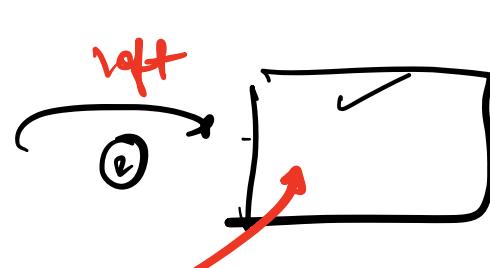
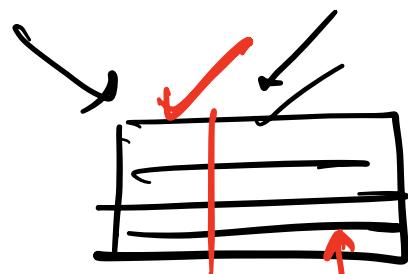
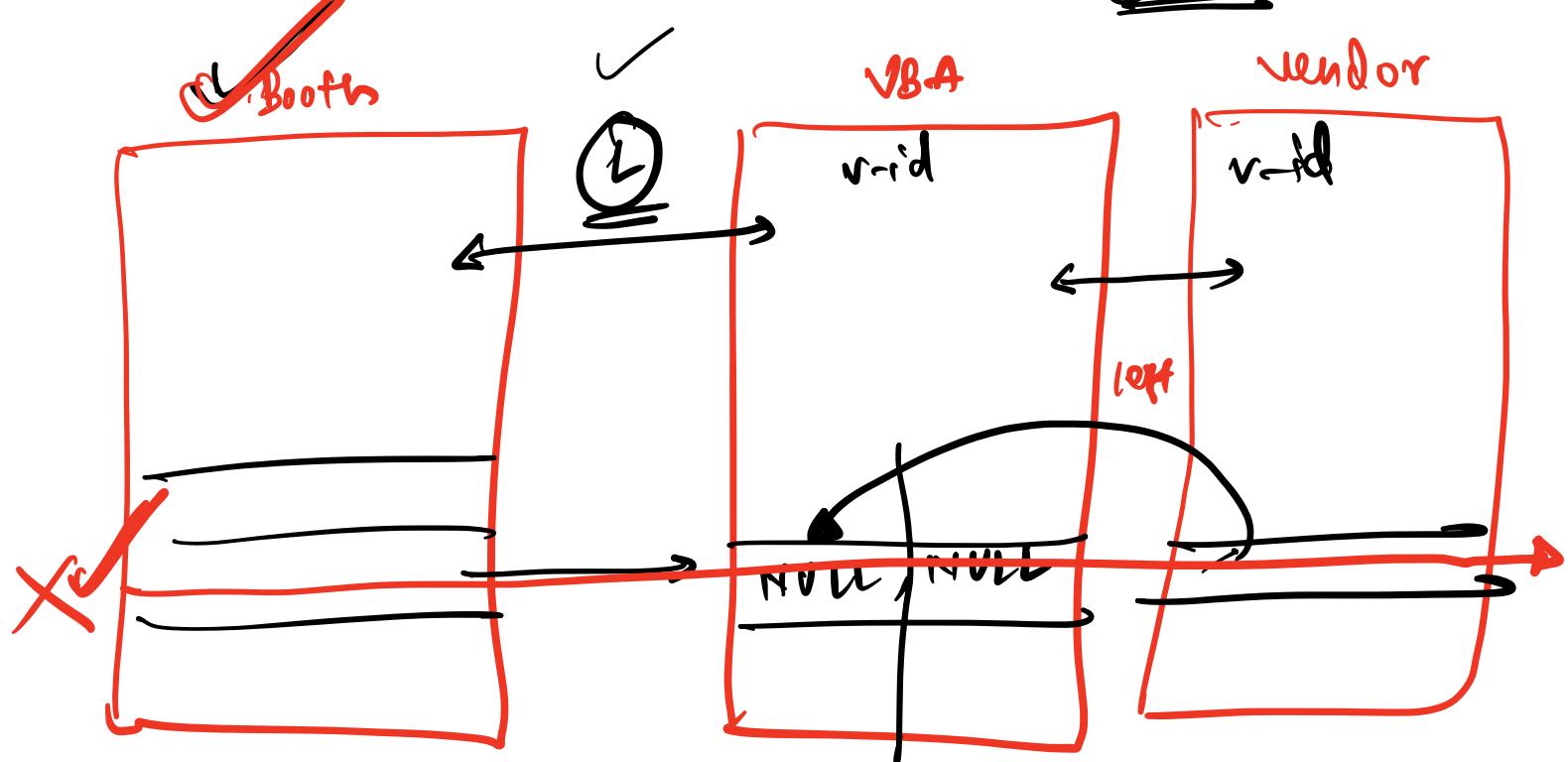
(Q) Details about all farmers' market booths and every vendor booth assignment for every market date.

~~①~~ booth

~~②~~ vendor-booth-assign

~~③~~ vendor

④ Join



* Self Join

(g) for each employee in the given table, find out the name of their manager.

Employee

| emp-id | emp-name | mgr-id |
|--------|----------|--------|
| 1 | A | 3 |
| 2 | B | 5 |
| 3 | C | NULL |
| 4 | D | 3 |
| 5 | E | 3 |
| 6 | F | 5 |

PF:

| emp-id | Name | mgr-name |
|--------|------|----------|
| 1 | A | C |
| 2 | B | E |
| 3 | C | NULL |

emp

| emp-id | emp-name | mgr-id | ... |
|--------|----------|--------|-----|
| 1 | A | 3 | |
| 2 | B | 5 | |
| 3 | C | 5 | |
| 4 | D | NULL | |
| 5 | E | 3 | |
| 6 | F | 5 | |

mgr

| emp-id | emp-name | mgr-id | ... |
|--------|----------|--------|-----|
| 1 | A | 3 | |
| 2 | B | 5 | |
| 3 | C | 5 | |
| 4 | D | NULL | |
| 5 | E | 3 | |
| 6 | F | 5 | |

Select

e. emp-id,
e. emp-name,
m. emp-name as mgr-name

from emp as e

emp as m

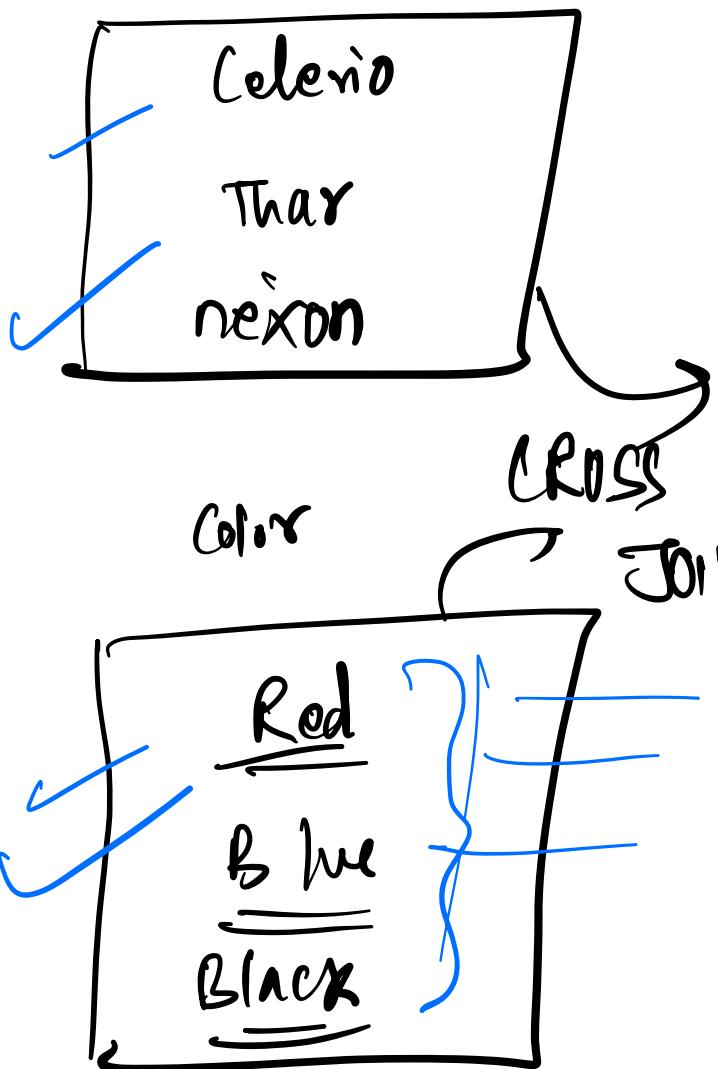
e.emp-id = m.emp-id

LEFT join

on

* CROSS JOIN

car-model



| car-model | color |
|-----------|-------|
| Celerio | Red |
| Celerio | Blue |
| Celerio | Black |
| Thar | Red |
| " | Blue |
| " | Black |
| nexon | Red |
| " | Blue |
| " | Black |

Handwritten calculations at the bottom left:

- A checkmark above the letter L.
- The letter L followed by a parenthesis with a 4 inside.
- The letter R followed by a parenthesis with a 5 inside.
- Two blue arrows pointing down from the L and R calculations to the multiplication.
- The equation $4 \times 5 = \underline{\underline{20}}$ written in blue.

Syntax

① select
*

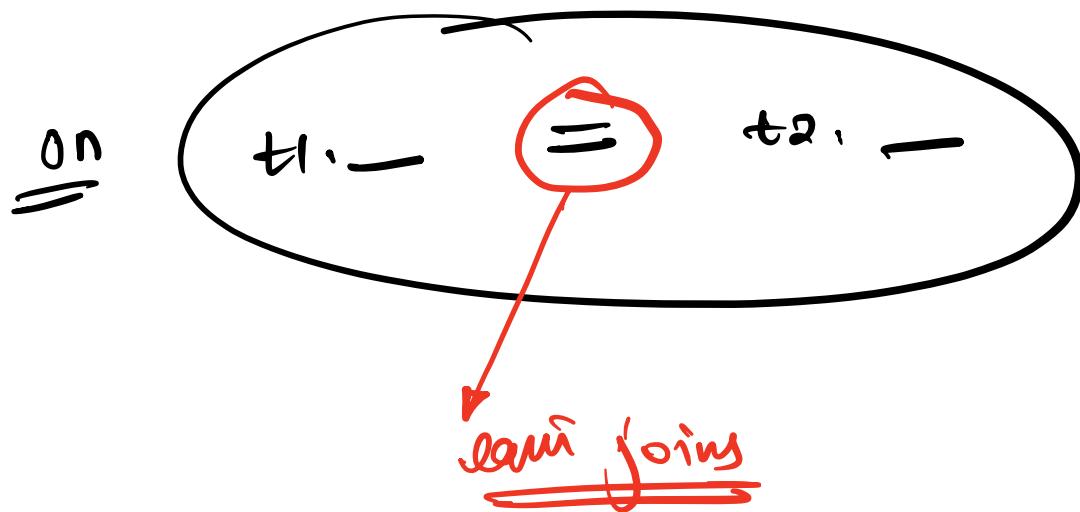
from car-model

CROSS JOIN color

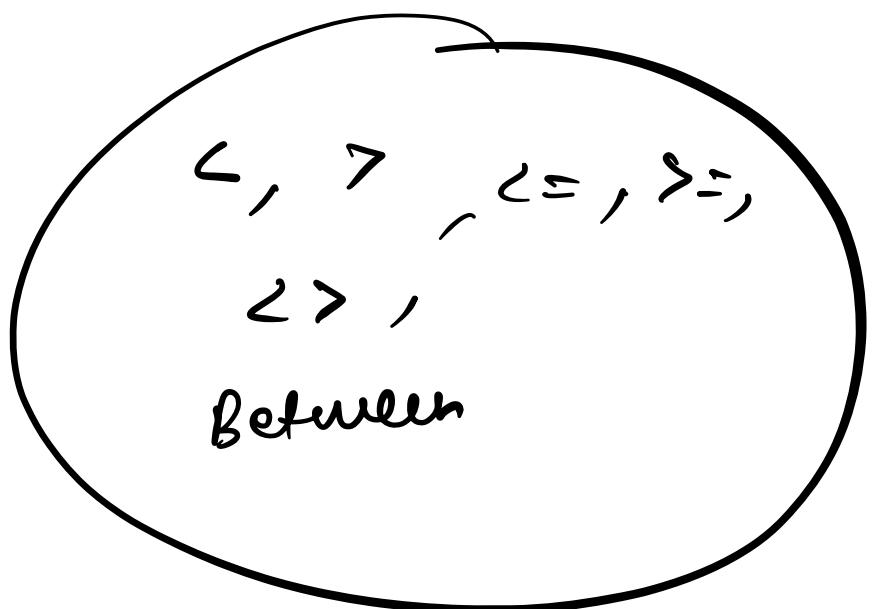
② select
*

from car-model as cm, color as c

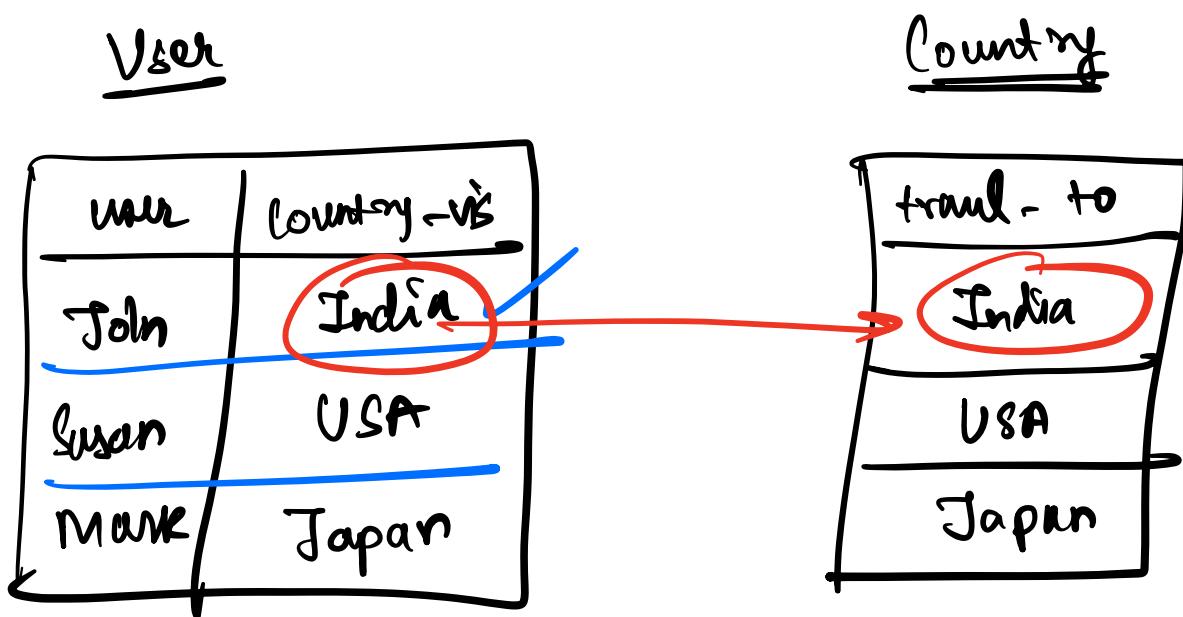
* Equi & non-equi Joins



non-equi joins



e.g.- given the User and the Country table,
 Recommend new countries to the
 user which they have not
 visited yet -



Select
 \equiv

from users as t1

Join Countries as t2

on t1.Country-visited <>> t2.travel-to

(P-2) Given kids - info and
Toys - info

Kids - info

| ID | Age |
|---------|-----|
| Alan | 2 |
| John | 5 |
| Nancy | 10 |
| Fedak | 7 |
| Clinton | 6 |

Toys - info

| Toys | min-age | max-age |
|-------------|---------|---------|
| Clothes | 0 | 3 |
| Stuff-dolls | 3 | 6 |
| Cars | 5 | 8 |
| Mindfulness | 6 | 9 |
| Slime | 8 | 11 |

(Q) Recommended toys to each kid who is above the minimum age to play with those toys.

Select



from kids-info as t1

join

toys-info as t2

on

$t1.\text{age} \geq t2.\text{min-age}$