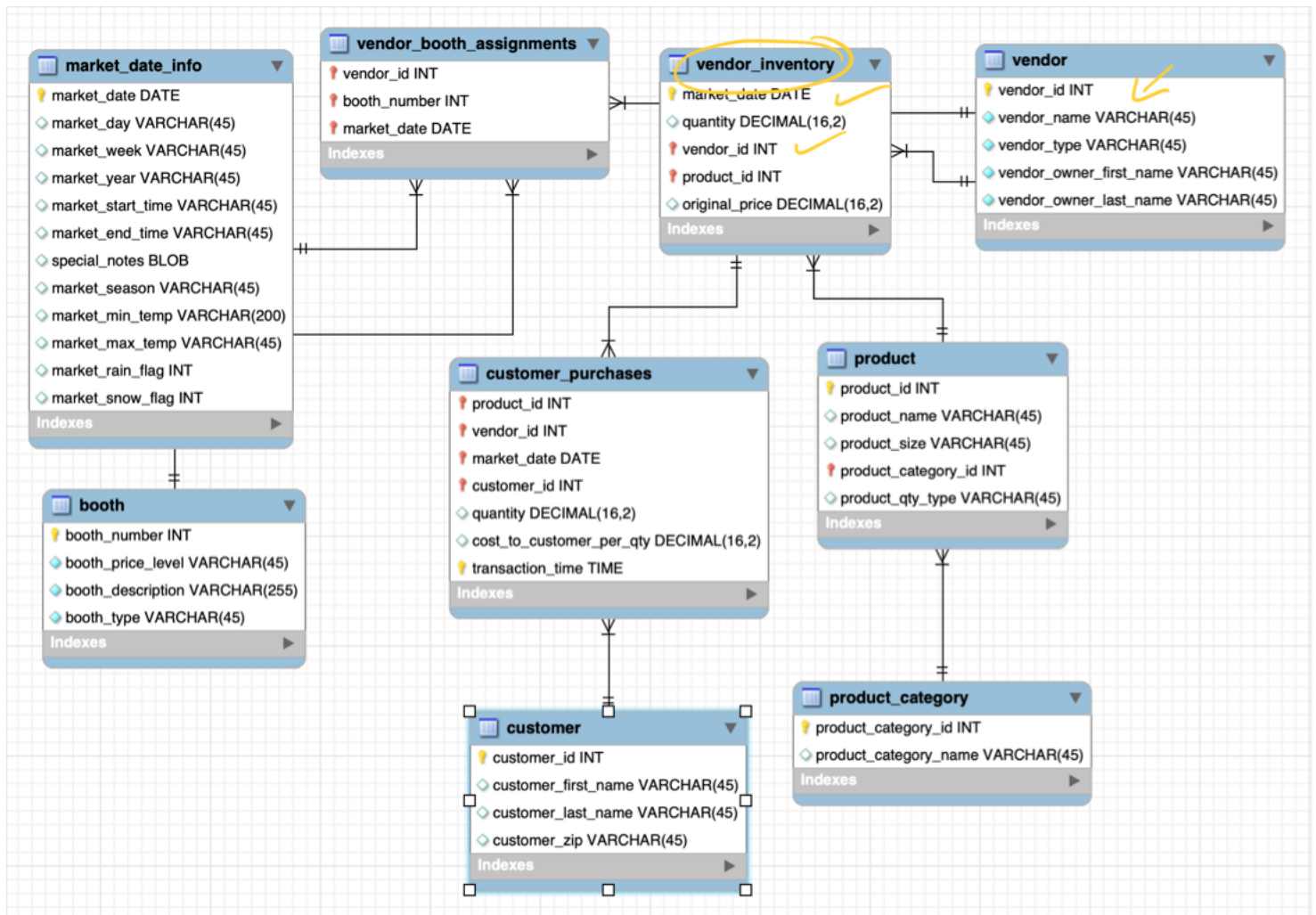
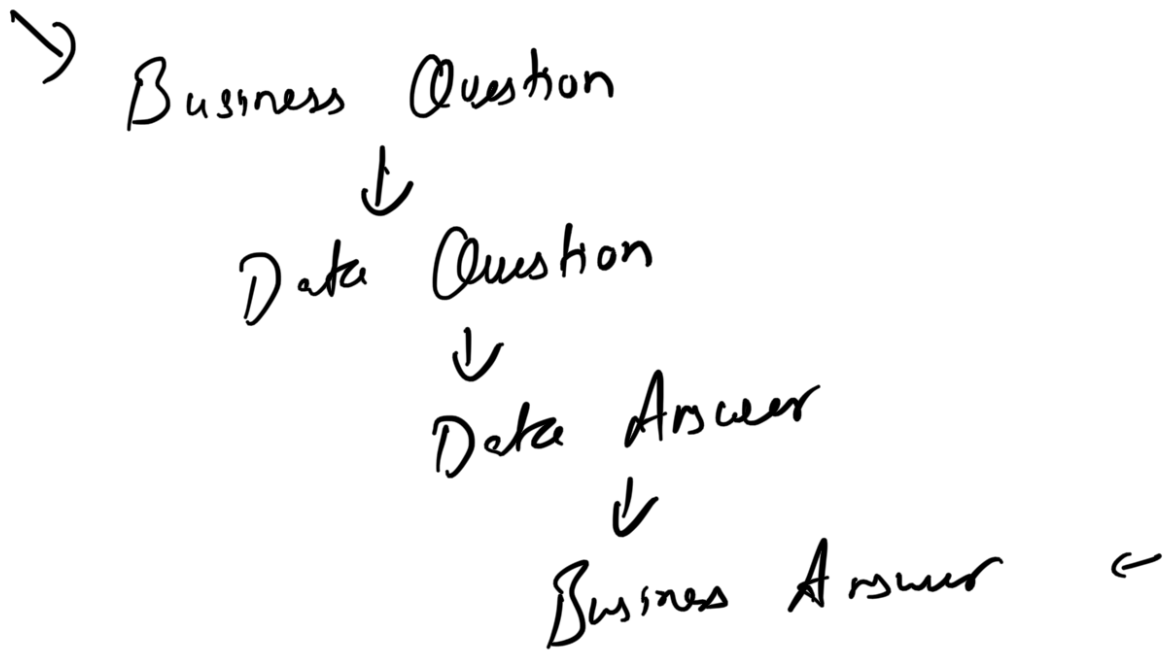


Agenda

- Advance Constructs - CTEs and Views
- Nested and Repeated Fields
- Writing Efficient Queries.



CTE



Qn.1 we want to design the database to have one row per vendor, we do not need to include detailed information about Customers & Products?

An.

Select

market-date,

vendor-id,

-, qty * Cost as total-Bill

From Customer-Purchases;



① CTE = Common Table expressions

② Views → Materialized views
→ Normal views

CTE

with [query1-alias] AS (
[query] ←

⇒ [query2-alias] AS (
[query] [query1-alias]

)
Select * from query1-alias,
query2-alias

⇒

Spend-date	Platform	total-amount	total-users
01	D	100	1
02	D	100	1
Mobile →			
2	M	200	1
2	M	300	1
Mobile + Desktop			

✓ Union

Union All ✓

^

CTE

- ① Ad-hoc queries
- ② No Access right

view $\rightarrow R$
 $\hookrightarrow W$
 $\hookrightarrow X$

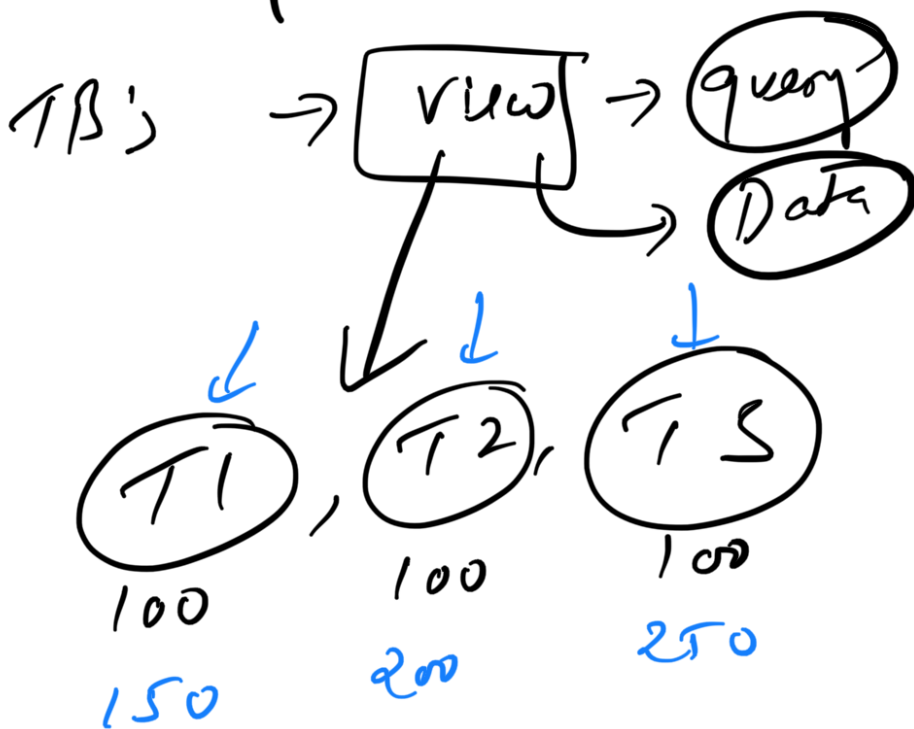
Views

Frequent used queries

①

Access right

view \rightarrow Rakish $\rightarrow W$
 \hookrightarrow Anamay $\rightarrow R$

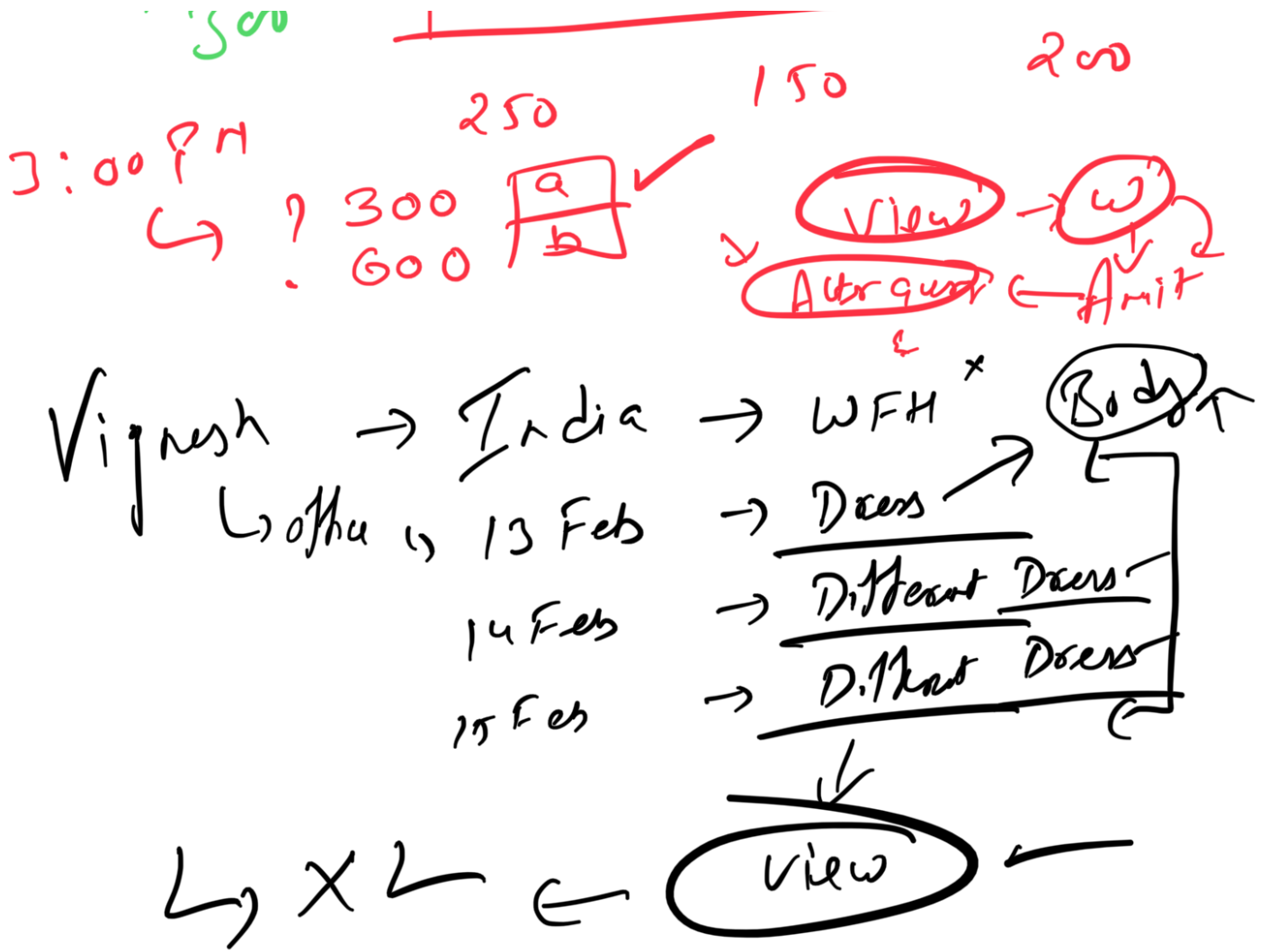


\Rightarrow ② Materialized view \rightarrow Query \checkmark

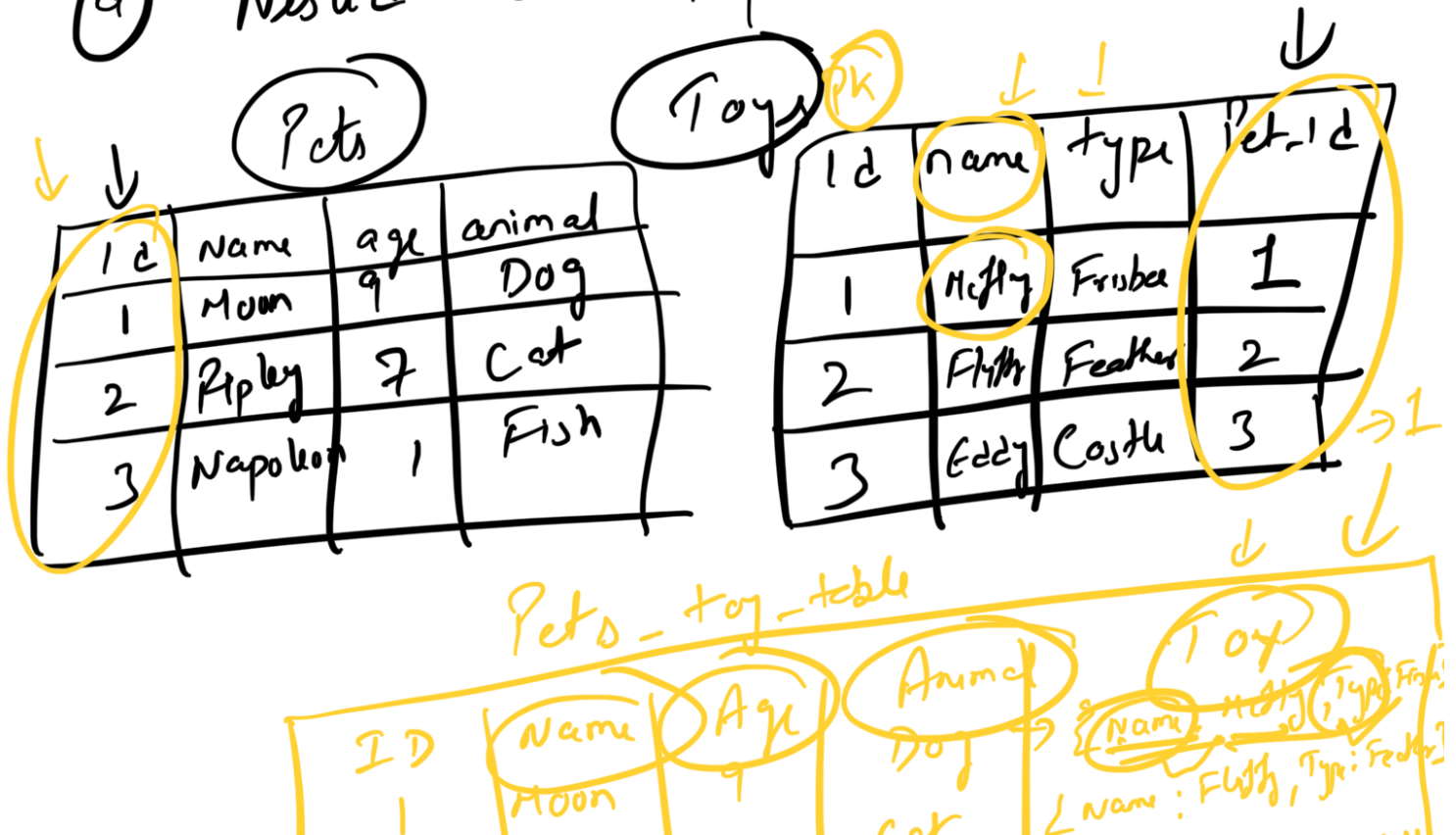


12:00 PM
 \hookrightarrow ...

T1	T2	T3
100	100	100



(a) Nested and Repeated Fields



Table

2	Ripply	7	Car	Σ Name: Eddy, Type: Cat
3	Napoleon	1	Fish	Σ Name: Eddy, Type: Cat

JSON

② Σ Name: Micky, Type: Fish
 ③ Σ Name: Eddy, Type: Cat

Access

query = Select
 Name,
 age,
 Animal,
 From Pet_tops - table

Toy.name
 Toy.Type

① device → Browser

⇒ device.browser

→ Hits → Page → Page Count = Hits.Page . PageCount

2 level of nesting

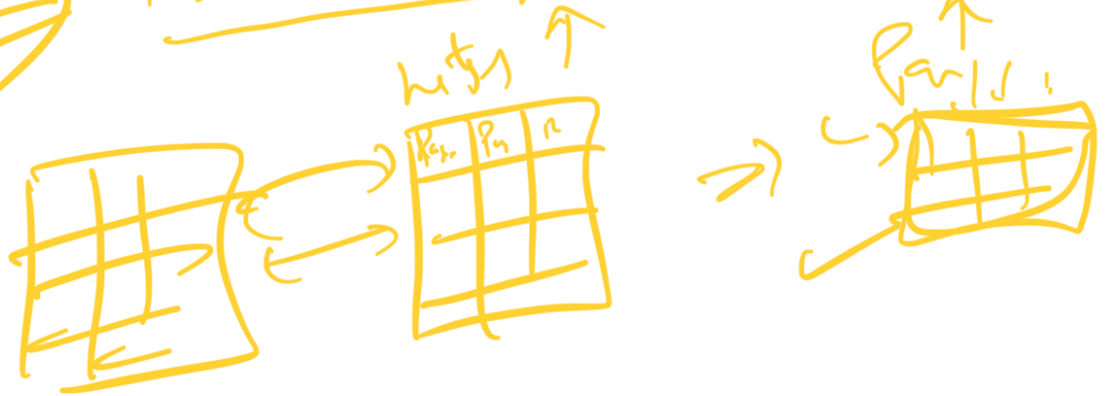
UNNEST

←

Select
Count

Select 0
 → ~~hits~~ ~~page~~ ~~appch~~

From 'dehbet.ga21007' (1) UNNEST(~~hits~~)



↓
 Explode

Select *
 From A Cross join B;
 ⇒ Select * from A, B;