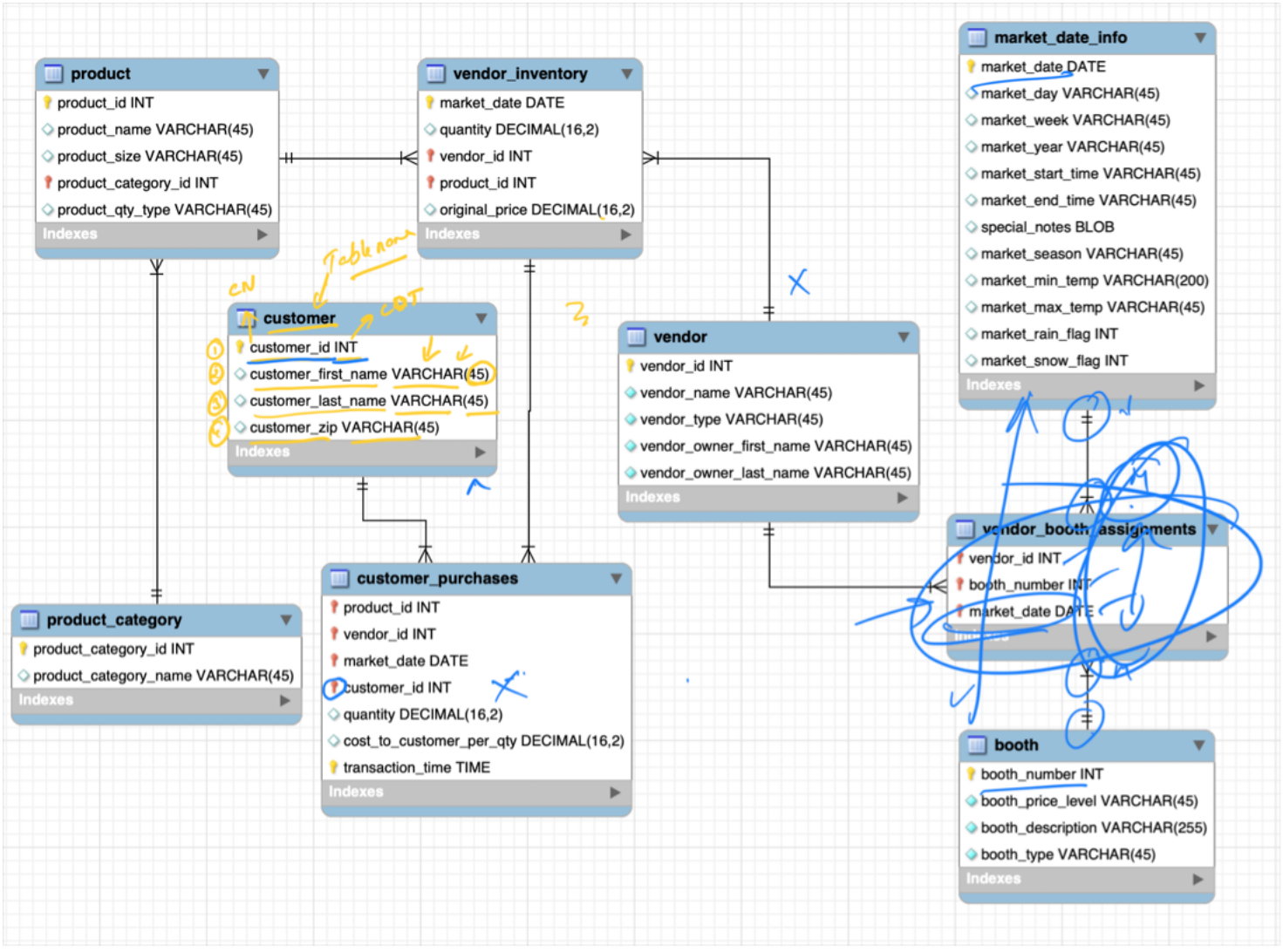
Agenda

a. What is database?✅
b. DB schema Design✅
c. Concept of keys✅
d. Types of relationships ✅
e. Data warehouses
f. Setting up Bigquery.



Rules :-

1. 9:02 PM
2. class will of 2 hrs
   09:00 pm – 10:00 → 11:00 PM
   break (5 mins)
3. Doubt clearing session
   11:00 to 11:30
4. By default, 2 times Critical = 3 times
5. Question tab → ask Questions (DCJ)
6. Commitment { a) Assignments/Assessments
   b) Ratings (1 – 5)
7. 12 classes
   ↳ 10th → Business case study
   ↳ Project
   ↳ 14 days

12th + ↳ Module test = 70% ⇒ P

Amazon Fresh

→ DA

directed by → Data Analyst

→ Database ✓

→ MySql ✓

→ Schema

X Excel
⇒ 2M rows

① Database
↳ Collection of interrelated tables

→ DBMS
↳ A Set of operations helps in managing & manipulate the Database

⇒ RDBMS = Relational ⇒

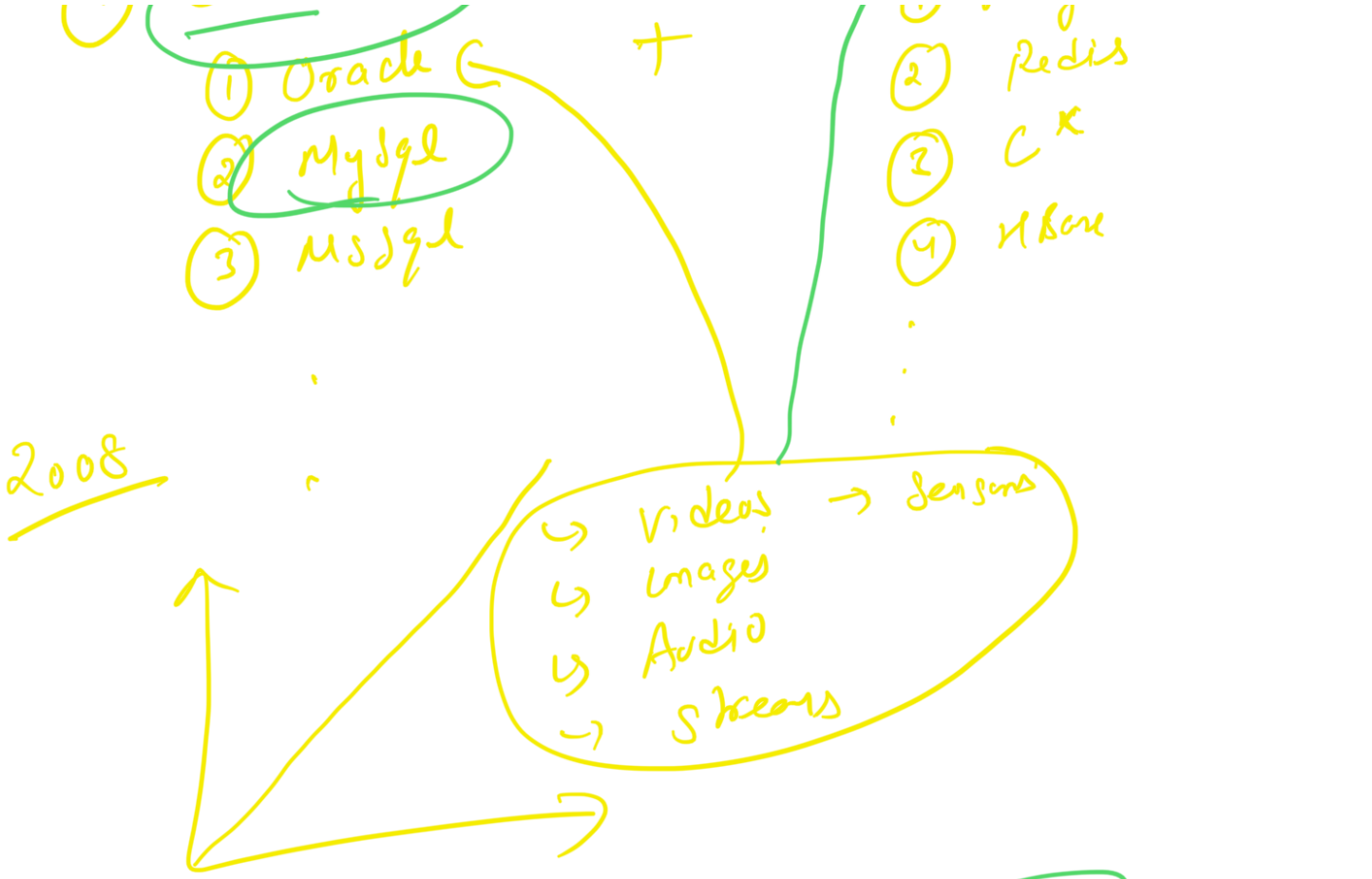
DBMS

(a) SQL DB (415)

(b) NoSql DB
MongoDB

X

X



char (Size)

⇓

char (10)

↓

only 1 value

Gender = M / F / O

Lgbtq ✗

(1) char(4)

↓

= 4

✗ ✓

(a) char

(b) Bca ✗

(c) varchar ✗

(d) An ✗

(2) Varchar (10)

Amit Singh ✗

Amit d Singh ✓ ✗ chowdhary

L=10

Relationships

① One to One

Rare

Normalization

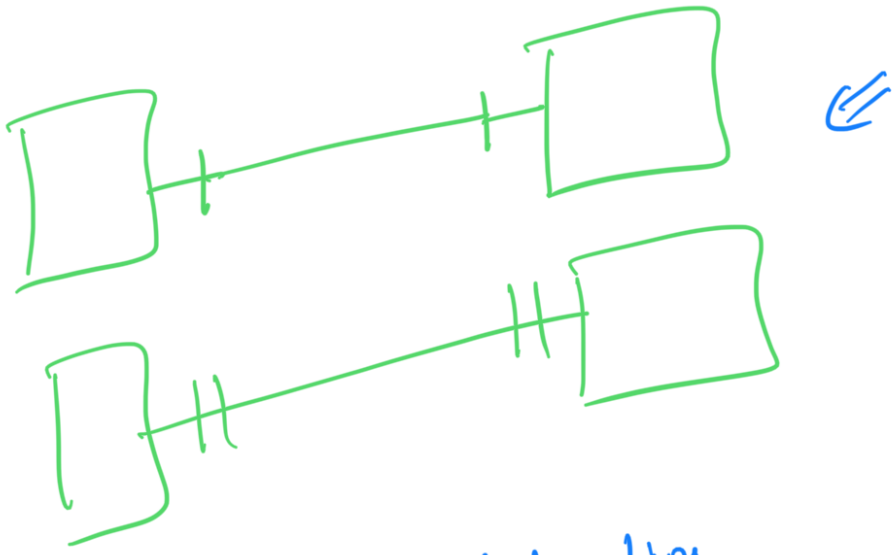
Customer

Cid	CFN	CLN
1	A	X
2	B	Y
3	C	Z
4	D	T

1 : 1

Customer_address

aid	Cid	state
a001	1	KN
a002	2	KR
a003	3	AP
a004	4	MY



② 95% One to many relationships

Customer

Cid	CFN	CLN
1	Rajesh	X
2	B	Y
3	C	Z
4	D	N

PK

1 : M

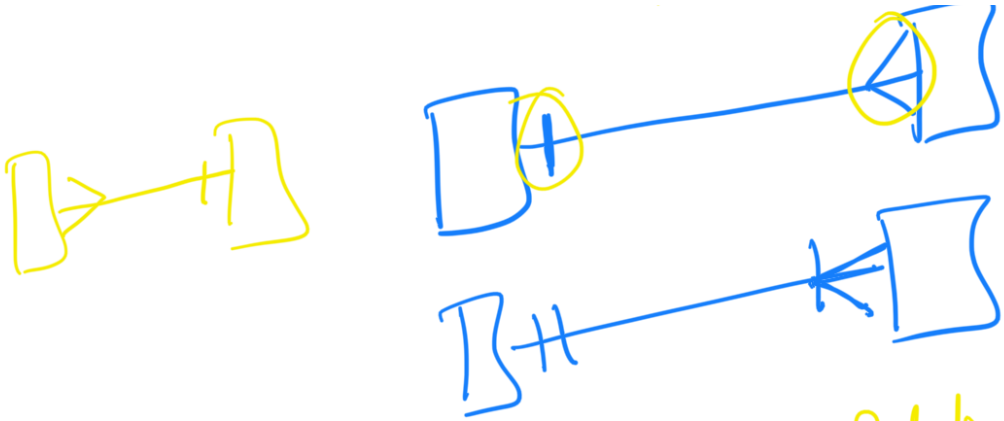
M : 1

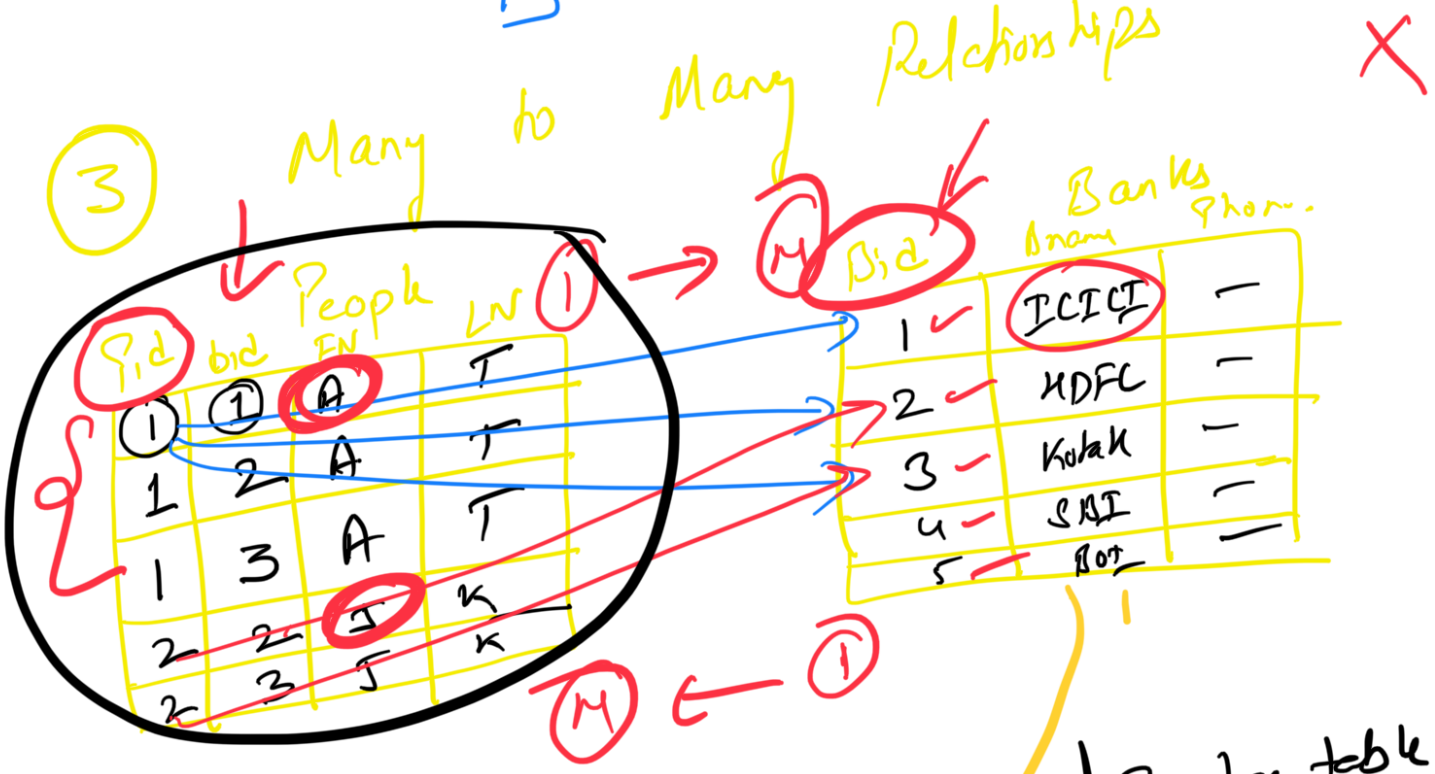
order

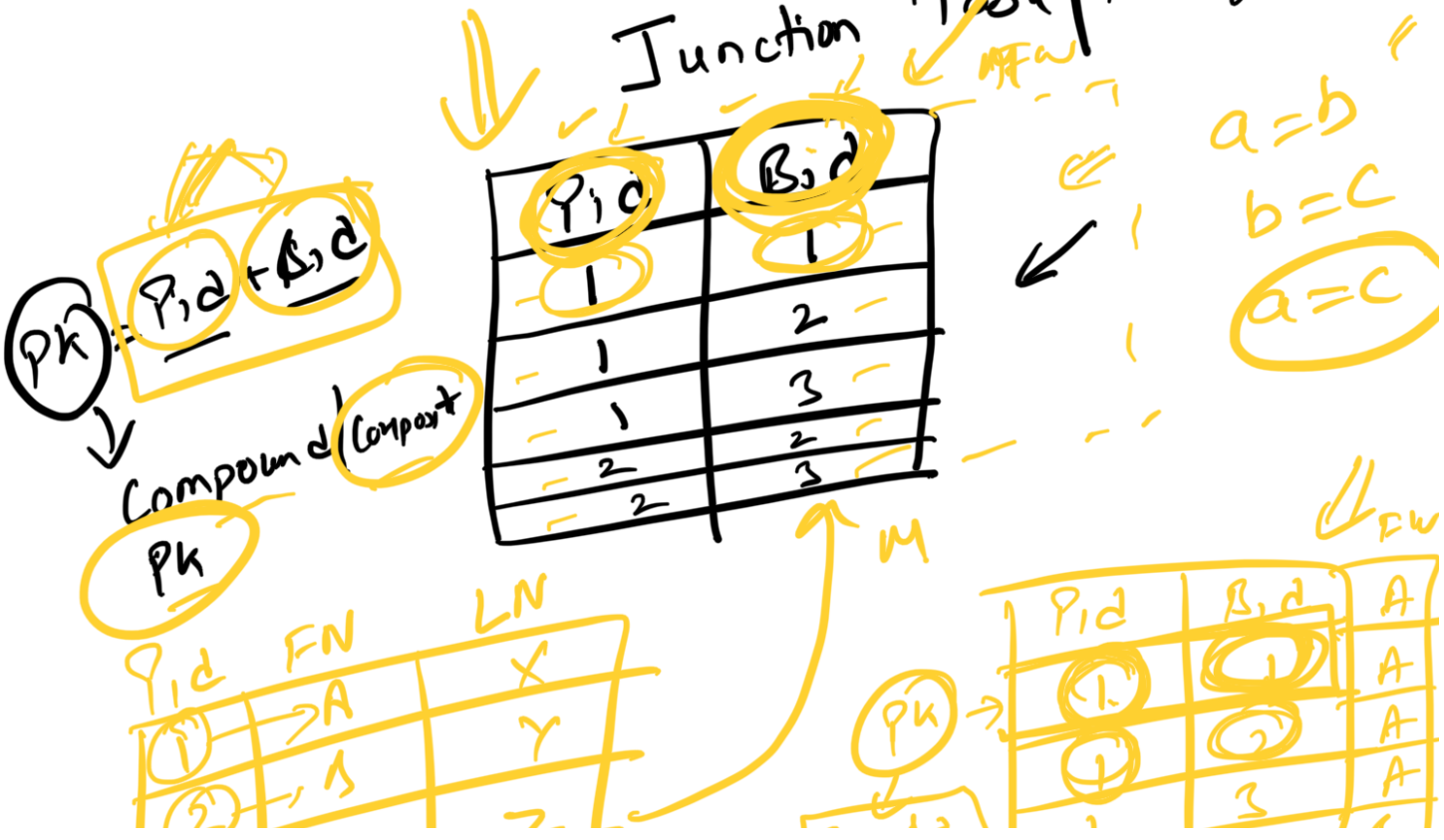
oid	Cid	Product_name
001	1	iPhone
002	1	iPad
003	1	Samsung
004	2	Oneplus

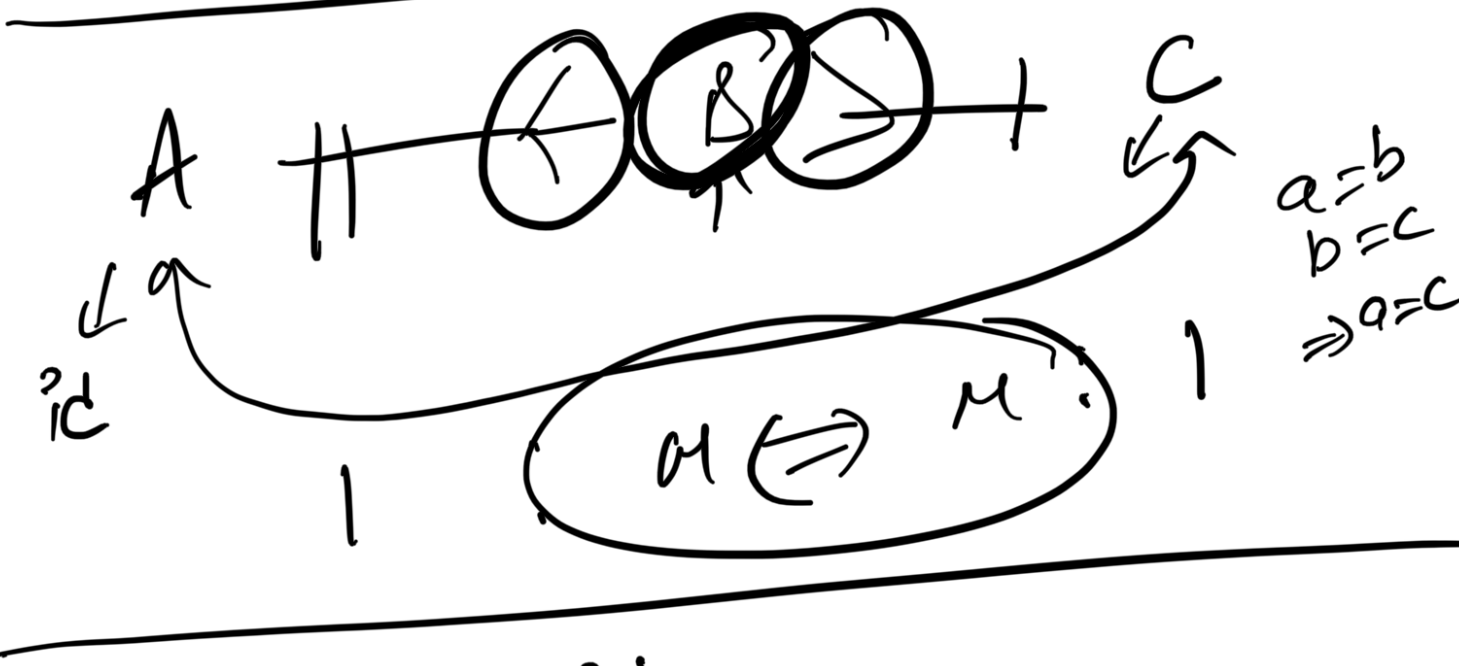
PK

FK


1 to many


Many to Many Relationships
3
People
Pid
bid
FN
LN
Banks
Bid
Bname
Phone
ICICI
HDFC
Kotak
SBI
BOI


Junction Table | Bridge table
Pid
Bid
PK
Pid + Bid
Compound / Composit
Pk
M
FN
LN
a=b
b=c
a=c



Day 2 :-

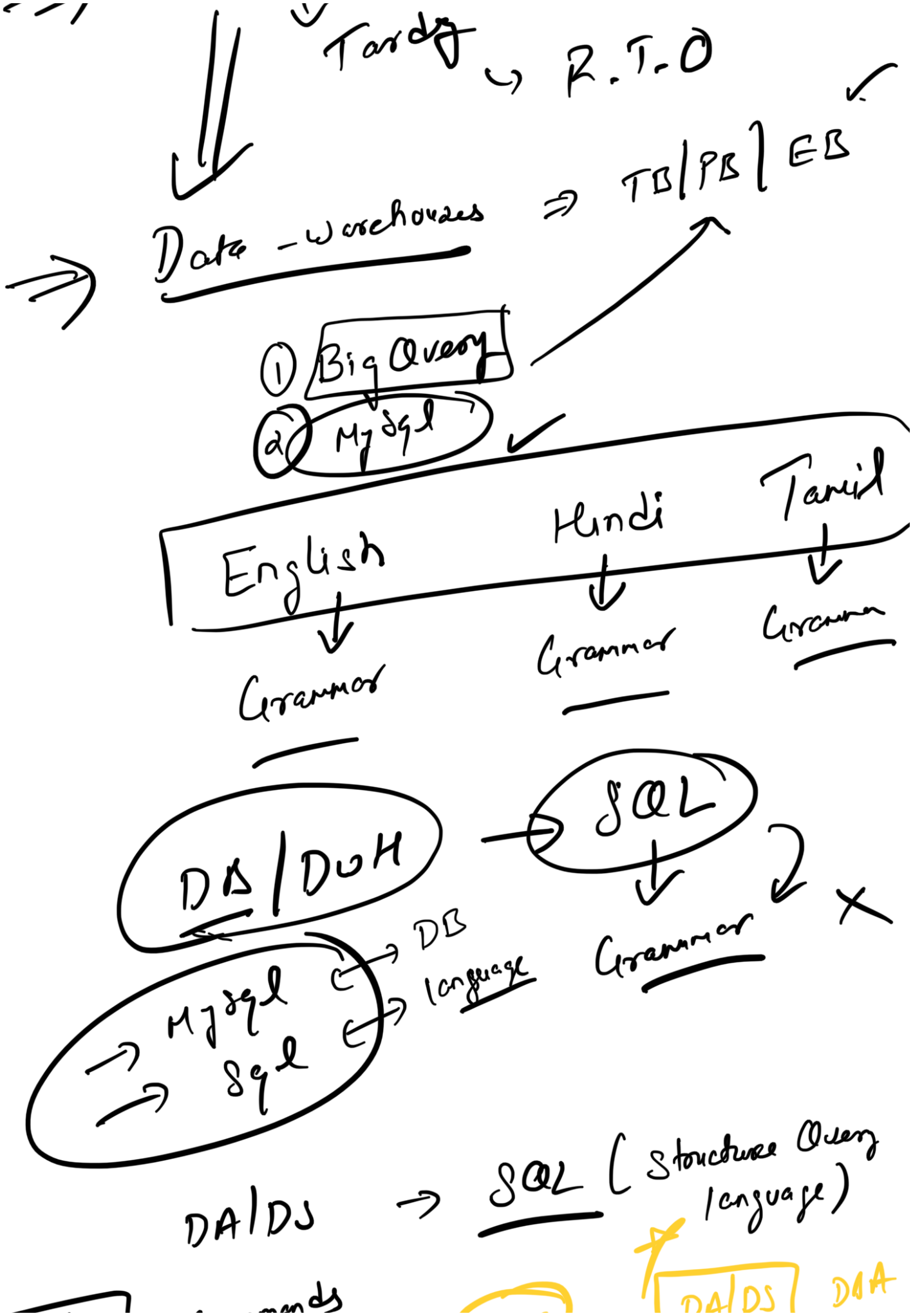
DA / DS ⇒ Database

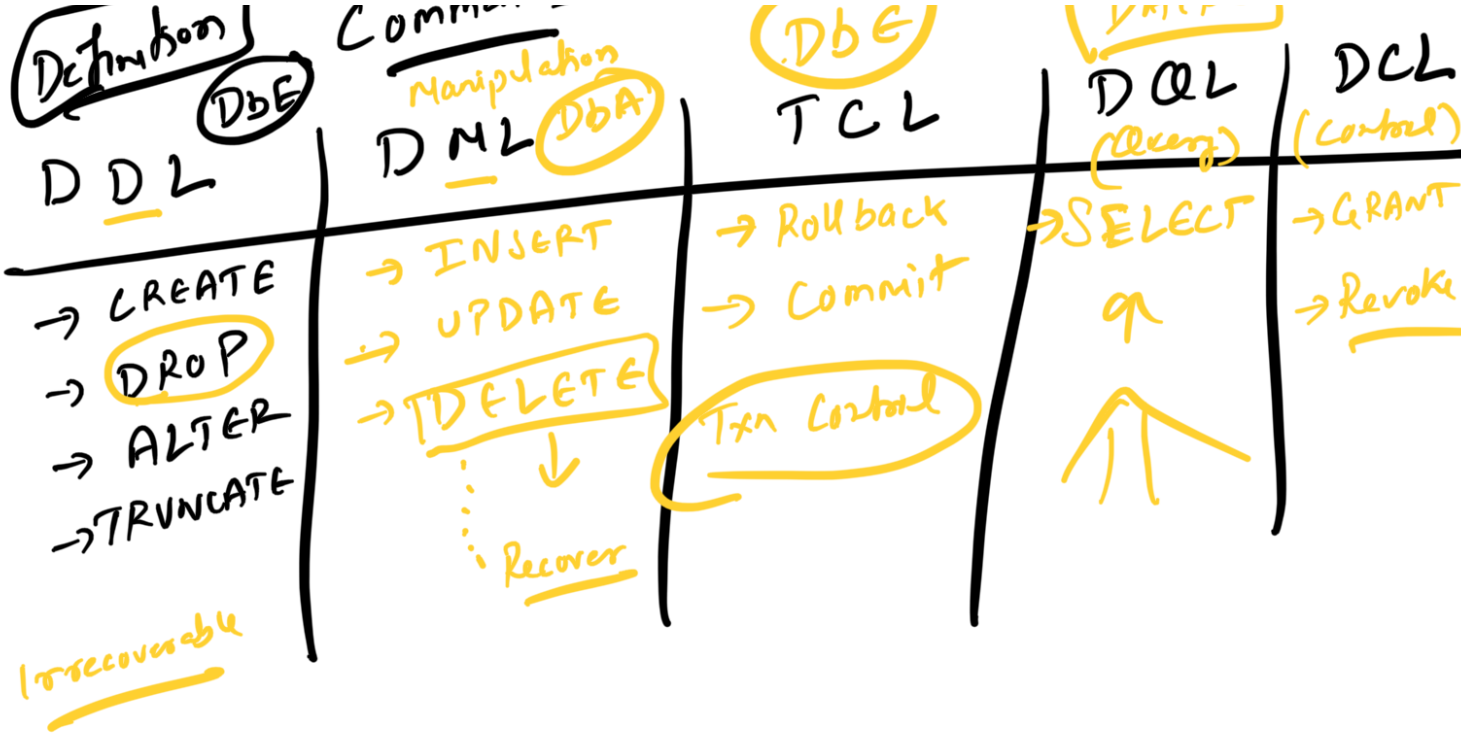
1GB = 1024MB

→ GB / TB / PB

→ Analytics / Reporting / Dashboards

⇒ Database = GB - TB ✓


Tardy
R.T.O
Data - warehouses
TB | PB | EB
1 Big Query
2 Mysql
English
Hindi
Tamil
Grammar
Grammar
Grammar
DS | DsH
SQL
Grammar
X
Mysql
Sql
DB
language
DA/DS → SQL (Structure Query language)
DA/DS
DA



DQL

① SELECT

Syntax:-

① SELECT (col, cols)
② FROM (table)
③ WHERE (filter)
④ GROUP BY (grouping)
⑤ HAVING (filter b/w GP)
⑥ ORDER BY (sorting) col, cols

Employees

id	name	Sal (INR)	Dept_id
1	Anil	400	IT
2	Sushma	1000	IT
3	Amit	400	IT
4	Aliya	1300	IT
5	Sushma	1400	IT
6	Ananya	1300	IT

id	name	Sal	dept_id
5	Sush	1400	IT
4	Ali	1300	IT
6	Ali	1100	IT
2	Sus	1000	IT
1	Anu	400	IT
3	Amit	200	IT

✓ order by Sal desc;

order by Sal desc, name;

Amit = Ananya

Anil → Aliya

eid	name	Sal	Dept_id
5	Sush	1400	IT
4	Aliya	1300	"
6	Ananya	1300	"
2	Sush	1000	"
3	Amit	400	"
1	Anil	400	"