Agenda : SQL advance Concepts

a. Partitioning

b. Indexes

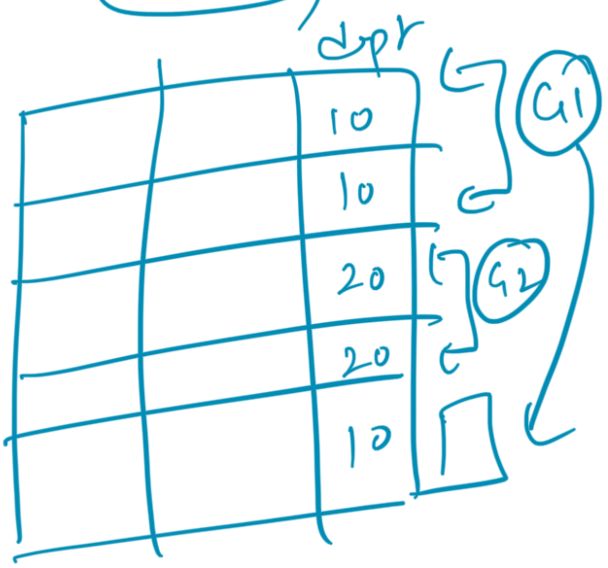
c. Functions

d. Stored Procedures

① Partitioning → window

↙ Physical

Group by



Partition by dept

Amazon Fresh

1M

10M ✓

Pid	Price	date	
A	10	2016	T
B	20	2017	F
C	30	2016	T
D	40	2017	F
G	50	2016	T
F	60	2017	F

Product

G bytes

→ Get me those products which come in 2016?

⇒ Select * from Product where date = 2016;

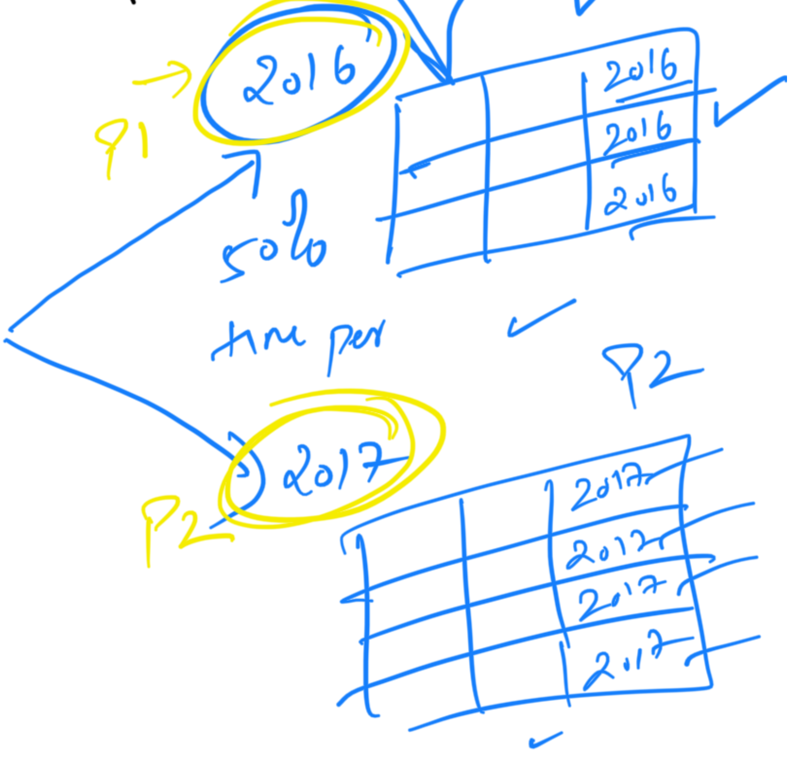
Partitioning

→ technique used in DB/DWH to divide large tables into smaller more manageable parts.

→ improves query performance

id	name	date
A	200	2016
B	100	2017
C	300	2016
D	150	2017
E	250	2016
F	350	2017
a	450	2011

10M



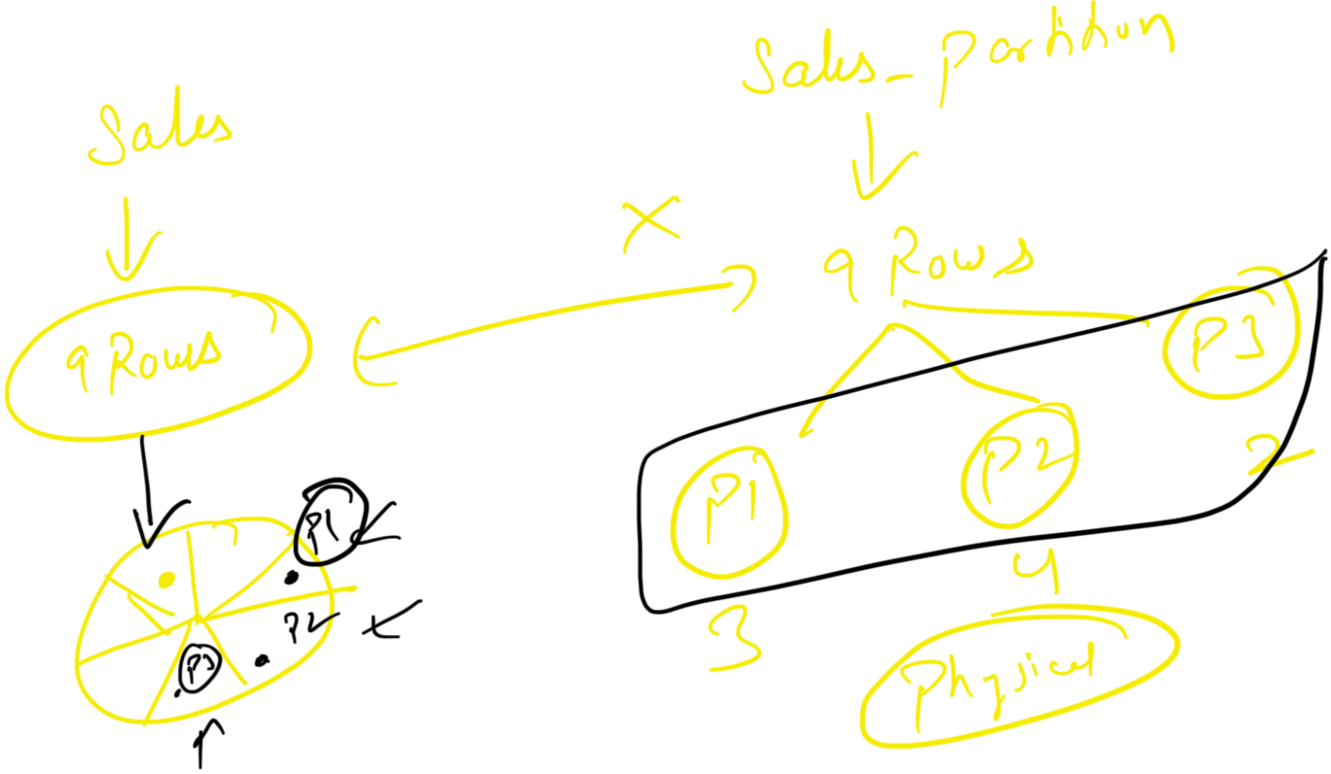
① Range = Hard Coding

Table = P1+P2 =>

where year = 2016

2016

P1 = 2



② List Partition

Partition by list (store_id)

Partition pEast values in (101,103,105)
in (102,104,106)
in (107,109,111)
in (108,110,112)

③ Hash Partition

id % no. of partitions ⇒ cid % 4

23 % 4 = ③

24 % 4 = 0

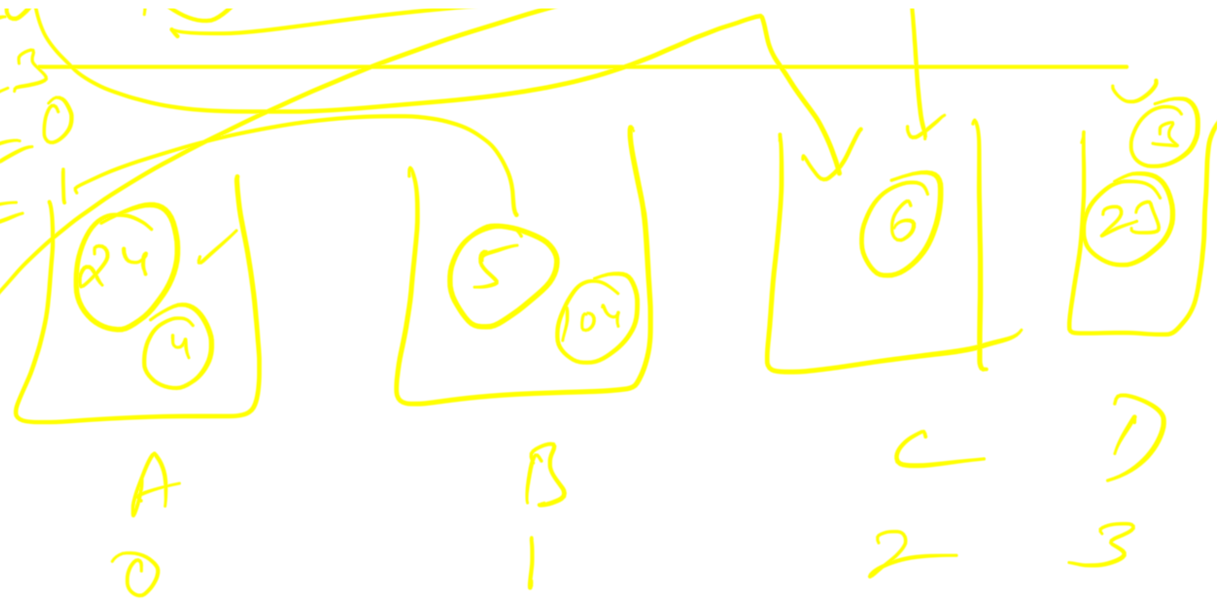
3 % 4 = 3

4 % 4 = 0

5 % 4 = 1

6 % 4 =

101 % 4 =



Syntax : Create table (

)
Partition By hash (store_id)
Partition 4 ;

⇒ Alter table ⬭
add partition ⬭ ⬭ ;

② Indexes

→ Prerajulization

→ Farhan nitrate compound

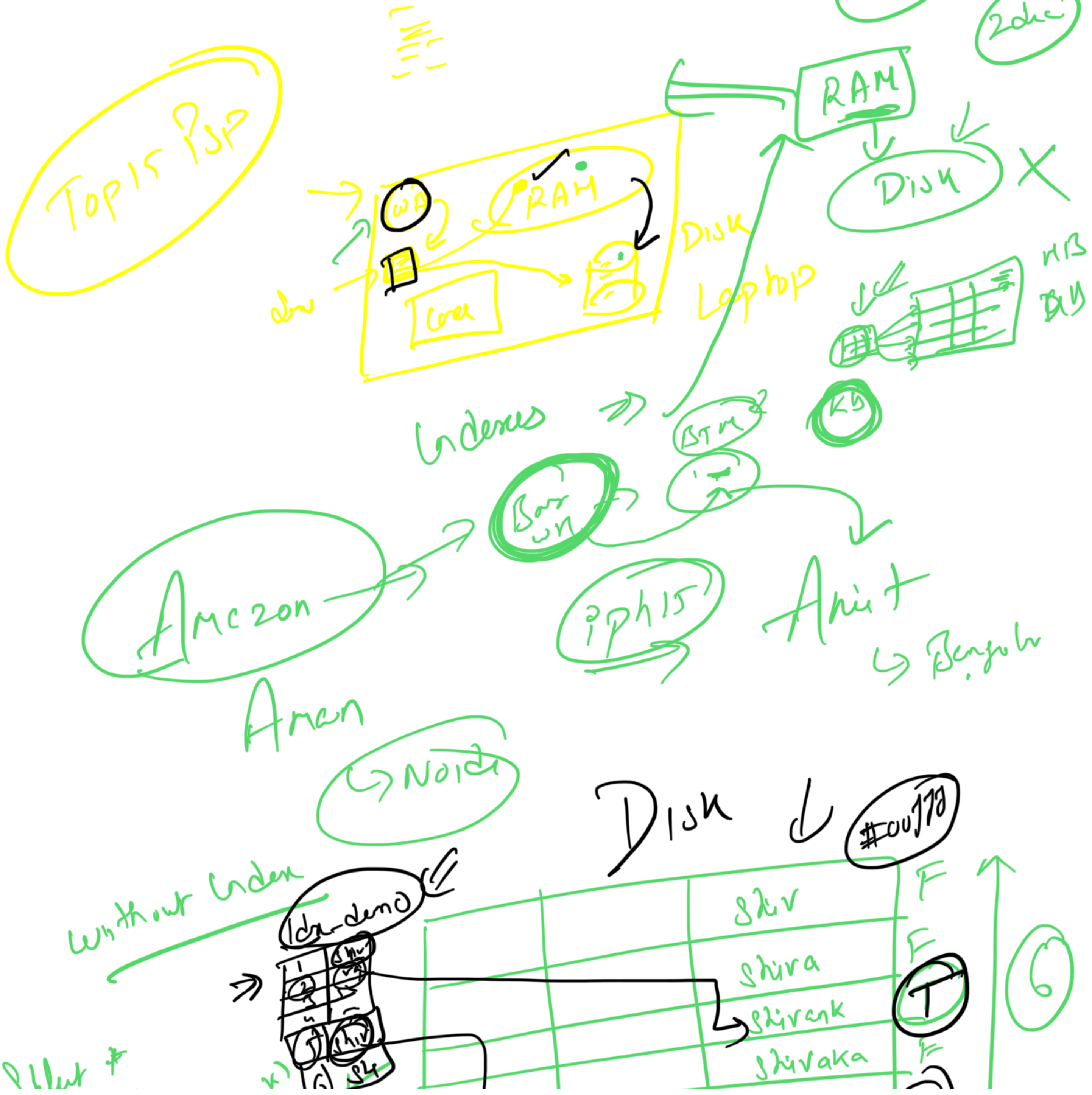
↓

10ms
15ms
240ms
2dec

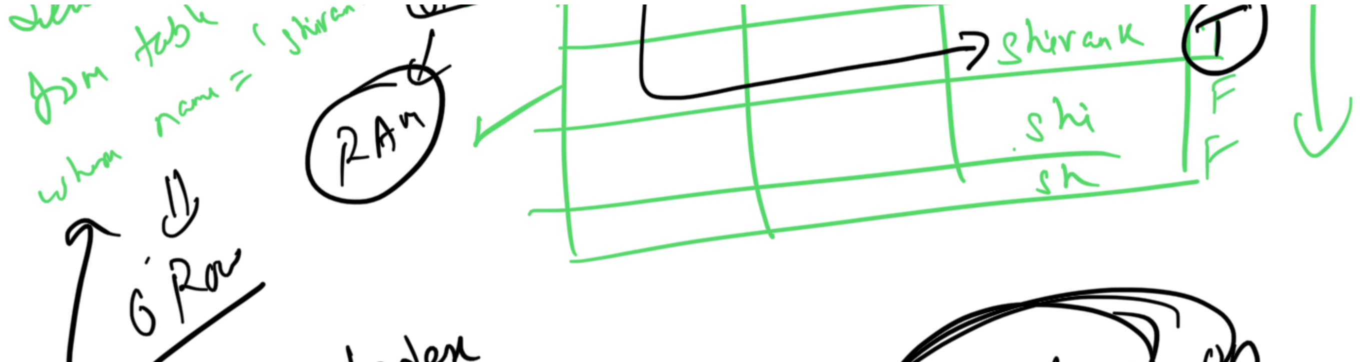
Top

Bottom 15

id	name	psp
1	A	100
2	B	97
3	C	93
4	D	84
5	C	95



		shiv	F
		shiva	F
		shivank	T
		shivaka	F



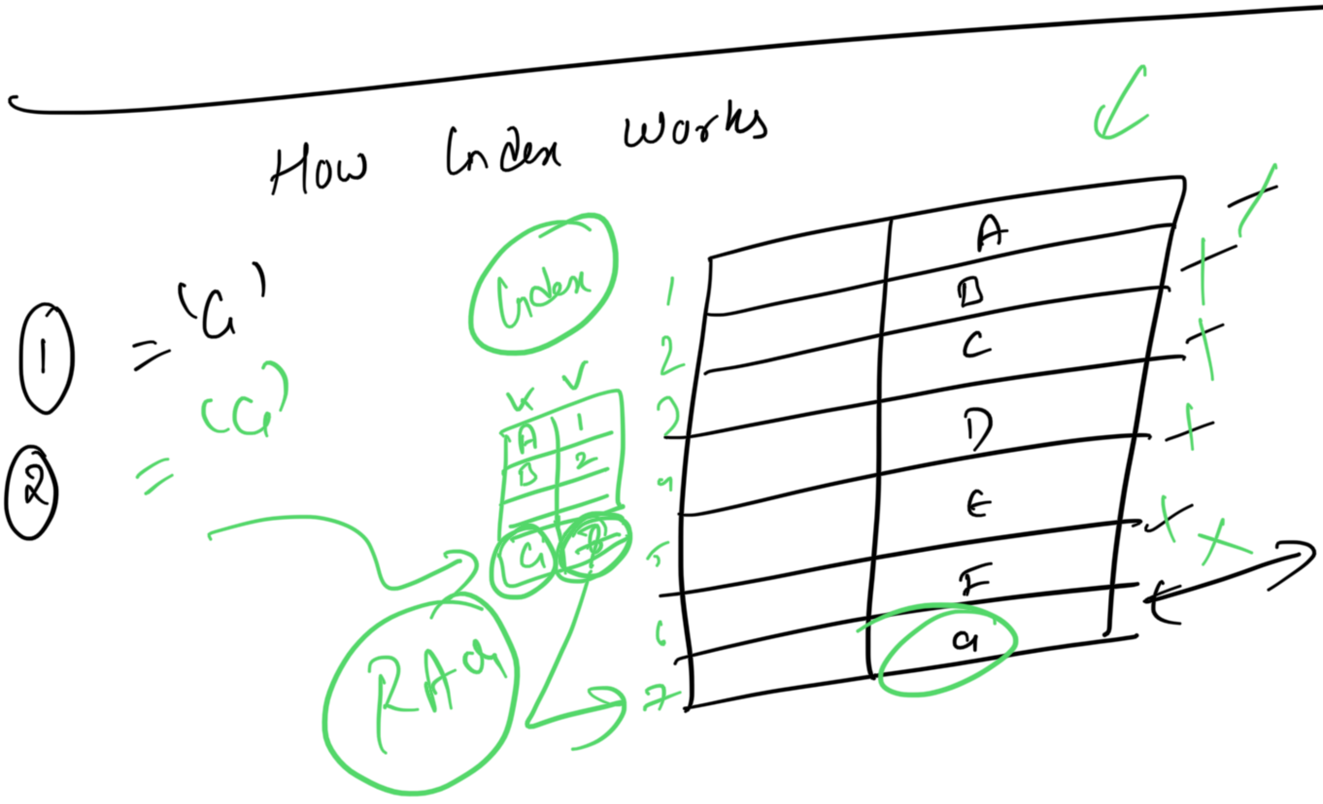
With Index

Create index idx_demo on name(first_name)

Select * from names
where f_n = 'shivank' ;

2 Rows

How Index works


① = 'G'
② = 'G'
Index
k v
A 1
B 2
G B
RAM
1
2
3
4
5
6
7
A
B
C
D
E
F
G