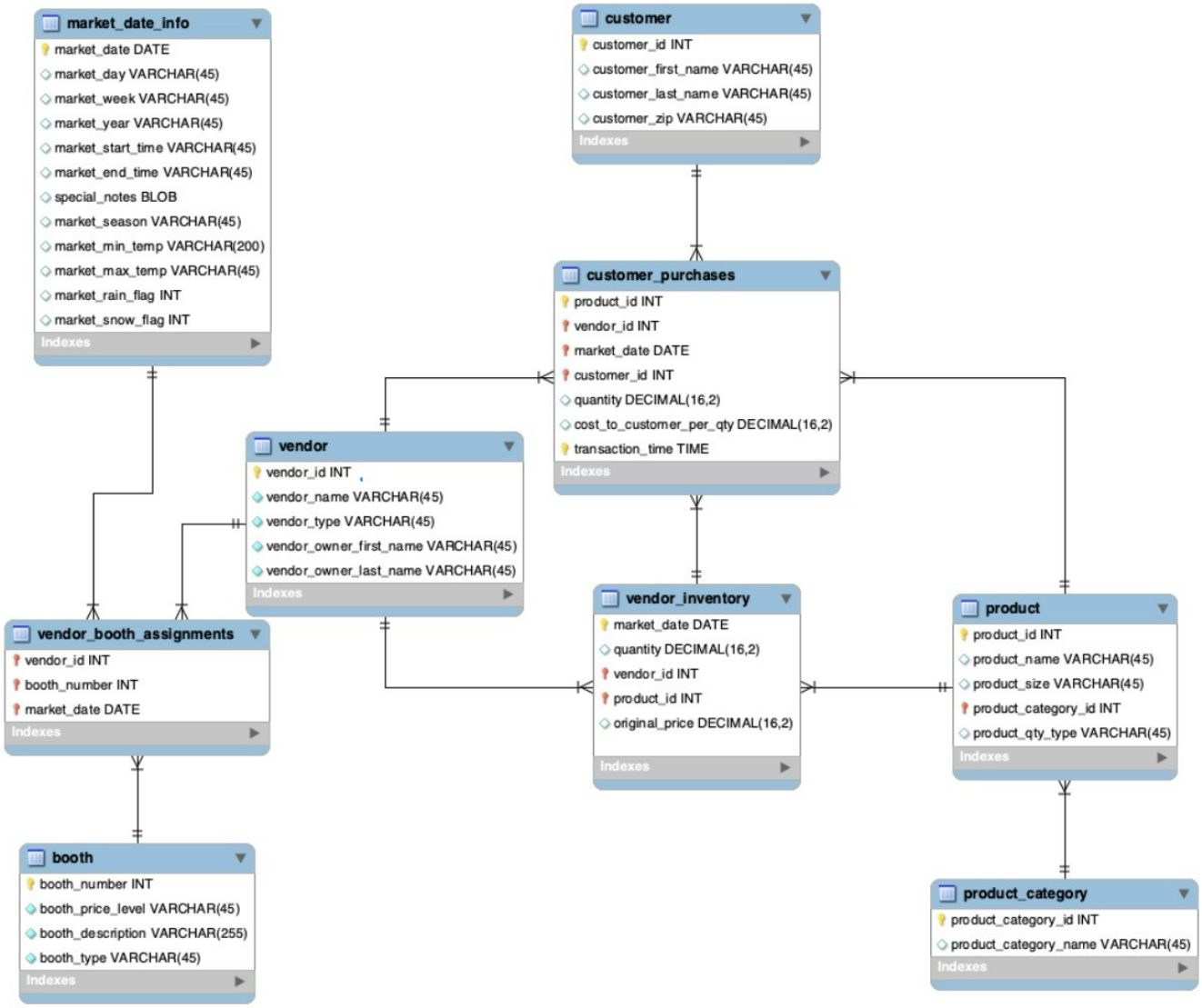
Agenda

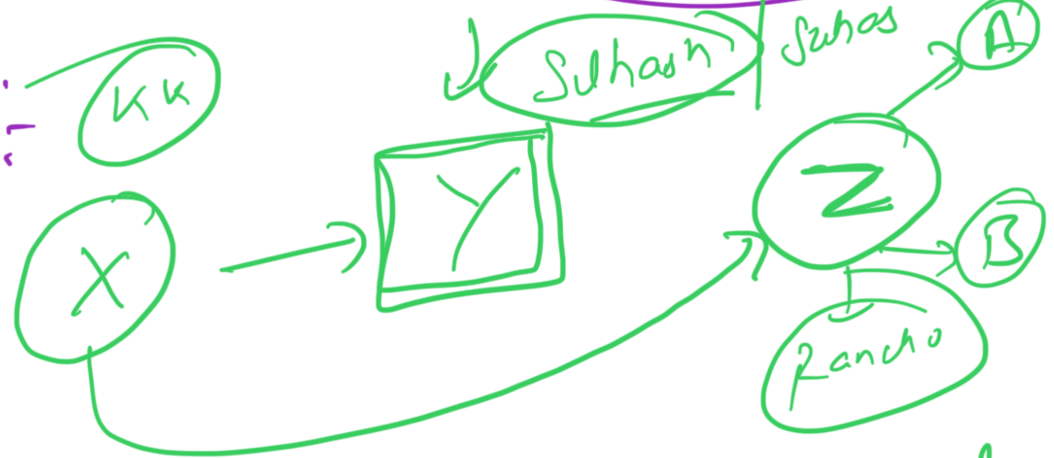
1. Window functions lead/lag/nth value/first value/last value
2. Date time functions
3. Cte and views


market_date_info
market_date DATE
market_day VARCHAR(45)
market_week VARCHAR(45)
market_year VARCHAR(45)
market_start_time VARCHAR(45)
market_end_time VARCHAR(45)
special_notes BLOB
market_season VARCHAR(45)
market_min_temp VARCHAR(200)
market_max_temp VARCHAR(45)
market_rain_flag INT
market_snow_flag INT
Indexes
customer
customer_id INT
customer_first_name VARCHAR(45)
customer_last_name VARCHAR(45)
customer_zip VARCHAR(45)
Indexes
customer_purchases
product_id INT
vendor_id INT
market_date DATE
customer_id INT
quantity DECIMAL(16,2)
cost_to_customer_per_qty DECIMAL(16,2)
transaction_time TIME
Indexes
vendor
vendor_id INT
vendor_name VARCHAR(45)
vendor_type VARCHAR(45)
vendor_owner_first_name VARCHAR(45)
vendor_owner_last_name VARCHAR(45)
Indexes
vendor_booth_assignments
vendor_id INT
booth_number INT
market_date DATE
Indexes
vendor_inventory
market_date DATE
quantity DECIMAL(16,2)
vendor_id INT
product_id INT
original_price DECIMAL(16,2)
Indexes
product
product_id INT
product_name VARCHAR(45)
product_size VARCHAR(45)
product_category_id INT
product_qty_type VARCHAR(45)
Indexes
booth
booth_number INT
booth_price_level VARCHAR(45)
booth_description VARCHAR(255)
booth_type VARCHAR(45)
Indexes
product_category
product_category_id INT
product_category_name VARCHAR(45)
Indexes

window fns

- aggregation
  - Sum
  - min | Max
  - Avg
  - Count
- Analytical
  - Row_number
  - Rank
  - Dense Rank
  - ntile
  - nth_value
  - First value
  - Last_value

(1) NTile :



⇓ B.tech | B.E → MBA → Financial Criant

IIM ←

		%	%tile
600 – Laxman	= 360	60	100
	Nistha = 360	60	100
600 –	Nistha = 359	59.9	99.99
	Komal = 359	59.8	99.98

G00 – ...
G00 – Priyanka = 358 | 59.6 | 99.8
G00 – Abhishek = 350

IIM A ⇒ 2 decks

2:30 mins

IPL → Cred ads

↓

100 → MCX (bill)

G1 | G2 | G3

50k 100,000 | 20-50 | 0-20

NTile :-

Syntax ⇒ Ntile (N) over ( )

where N = +ve number

employee

		Sal		
1	A	400	800	1
2	B	300	700	1
3	C	150	400	2
4	D	700	300	2
5	E	800	200	3
6	F	200	150	3

B1, B2, B3

G1 = HC
G2 = MC
G3 = LC

6/3

7/3 ⇒ G1 =

↓

Ntile(3) over(order by Sal Desc)

6/10

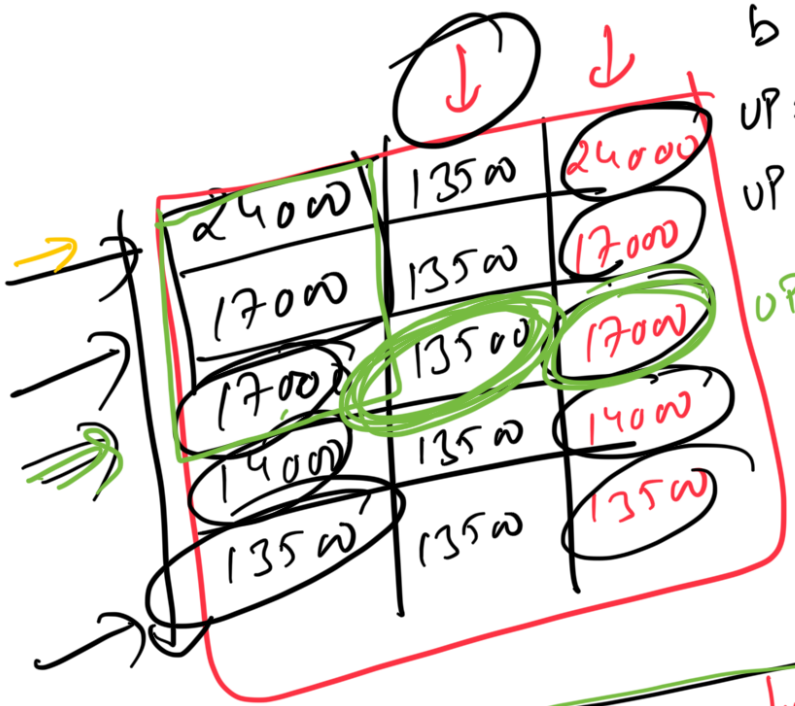
1	2	3
1	2	3
1		

② nth_value

Syntax :- nth_value (a, b) over ( )

a = Column value

b = +ve number



UP = null CR = 2400

UP = 2400 CR = 1700

UP = 1700, 2400 UF = 1400, 1350

CR = 1700

UP = 1400, 1700, 1700, 2400

CR = 1350

Query :- Last_value (Sal) over (order by Sal desc

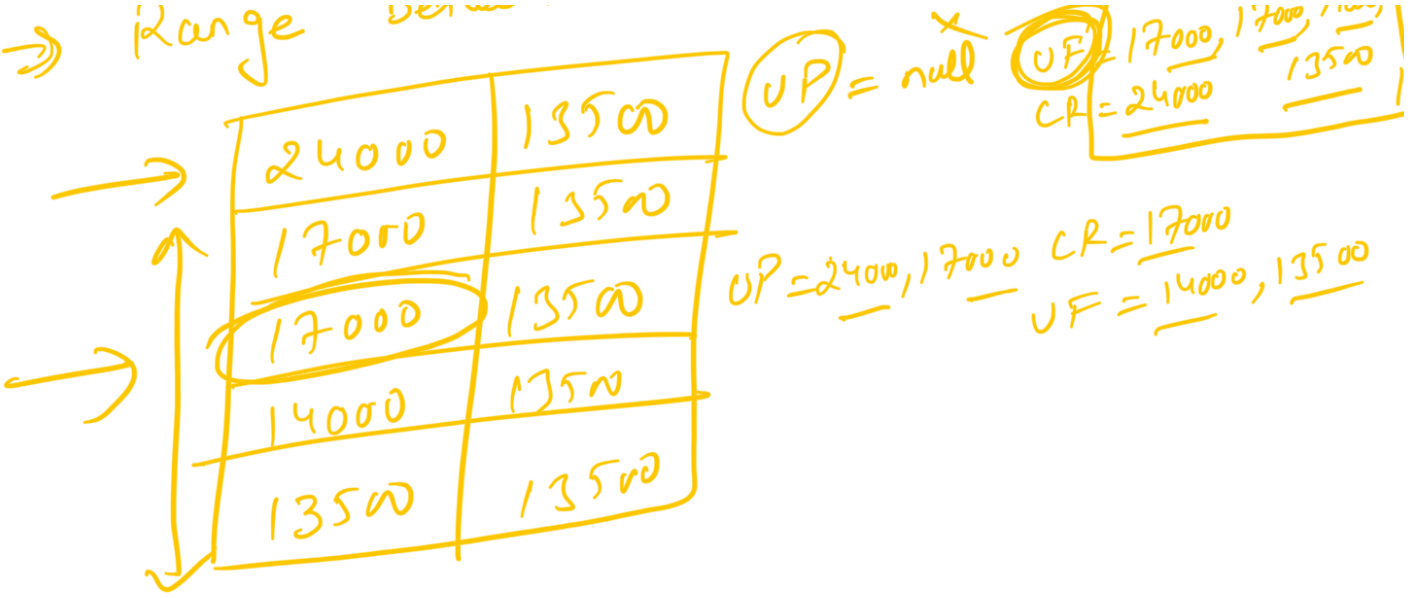
Range between UP and CR

and UF

last_value()

between UP and UF

⇒ Range



Date time fmt

%Y = Year with Century (2024)

%m = Month (01-12)

%d = Day of the month (01-31)

%I = Hour (00-12)

%H = Hour (00-23)

%M = Minute (00-59)

%S = Second (00-59)

%p = AM/PM

DCS

able (3)

200 - 1

300 - 2

400 - 2

500 - 3

600 - 3

2

ahce (10)

6 | 10 - 1