Data Analysis- Coffee\_Shop\_Sales Analysis

--Create a database

create database coffeedb;

--Import data in MySQL database

--Clean the data in MySQL

alter table Coffee\_Shop\_Sales

Modify Column Transaction\_id int;

Modify Column Transaction\_date date;

Modify Column Transaction\_time time;

# Data Analysis based on problem statement

--calculate the total sales for each respective month

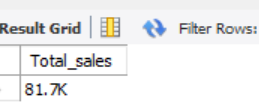
select

concat(round(sum(transaction\_qty \* unit\_price)/1000,1),'K') as Total\_sales

from Coffee\_Shop\_Sales

where month(transaction\_date) = 1 -- Jan Month, respectively 2 Feb, 3 Mar.....

;



--Month on Month increase and decrease in sales Percent

select month(transaction\_date) as Month,

concat(round(sum(transaction\_qty \* unit\_price)/1000,1), 'K') as Total\_sales,

(sum(transaction\_qty \* unit\_price)- lag(sum(transaction\_qty \* unit\_price),1)

over(order by month(transaction\_date))) / lag(sum(transaction\_qty \* unit\_price),1)

over(order by month(transaction\_date)) \* 100 as MoM\_increase\_Percentage

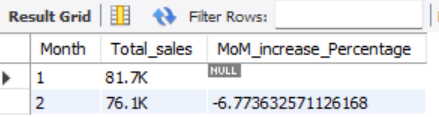
from

Coffee\_Shop\_Sales

where month(transaction\_date) in (1,2) -- for Jan and Feb, Respectively 3 Mar,…….

group by month(transaction\_date)

order by month(transaction\_date);



--Sales diff between selected month and previous month

select month(transaction\_date) as Month,

concat(round(sum(transaction\_qty \* unit\_price)/1000,1), 'K') as Total\_sales,

sum(transaction\_qty \* unit\_price)- lag(sum(transaction\_qty \* unit\_price),1)

over(order by month(transaction\_date)) as Sales\_Diff

from

Coffee\_Shop\_Sales

where

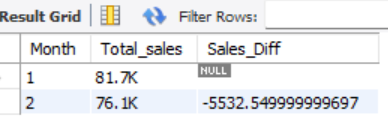
month(transaction\_date) in (1,2) -- for month of Jan and Feb

group by

month(transaction\_date)

order by

month(transaction\_date);



--Total orders in each respective month.

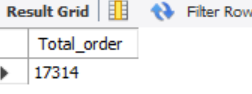
select

count(transaction\_id) as Total\_order

from

Coffee\_Shop\_Sales

where month(transaction\_date) = 1; -- for Jan



-- Month on Month increase and decrease in Orders Percent

select month(transaction\_date) as Month,

round(count(transaction\_id),1) as Total\_Orders,

(count(transaction\_id) - lag(count(transaction\_id),1)

over(order by month(transaction\_date))) / lag(count(transaction\_id),1)

over(order by month(transaction\_date))\*100 as MoM\_order\_increase\_percentage

from

Coffee\_Shop\_Sales

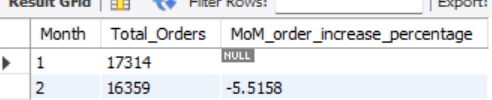
where

month(transaction\_date) in (1,2) -- for Jan and Feb, Respectively 3 Mar,…….

group by

month(transaction\_date)

order by month(transaction\_date);



-- Orders diff between a selected month and the previous month

select month(transaction\_date) as Month,

round(count(transaction\_id),1) as Total\_Orders,

count(transaction\_id) - lag(count(transaction\_id),1)

over(order by month(transaction\_date)) as Order\_Diff

from

Coffee\_Shop\_Sales

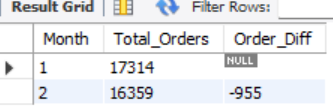
where

month(transaction\_date) in (1,2) -- for Jan and Feb

group by

month(transaction\_date)

order by month(transaction\_date);

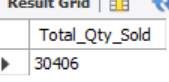


--Total Qty sold for each respective month

select sum(transaction\_qty) as Total\_Qty\_Sold

from Coffee\_Shop\_Sales

where month(transaction\_date) = 3; -- for Mar, Recpectively 1 for Jan,......



-- Month on Month increase and decrease in Sold Qty Percent

select month(transaction\_date) as Month,

round(sum(transaction\_qty),1) as Total\_Orders,

(sum(transaction\_qty) - lag(sum(transaction\_qty),1)

over(order by month(transaction\_date))) / lag(sum(transaction\_qty),1)

over(order by month(transaction\_date))\*100 as MoM\_sold\_qty\_increase\_percentage

from

Coffee\_Shop\_Sales

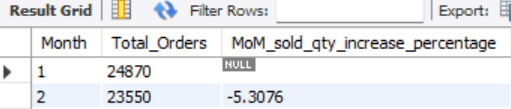
where

month(transaction\_date) in (1,2) -- for Jan and Feb, Respectively 3 Mar,…….

group by

month(transaction\_date)

order by month(transaction\_date);



-- Oty Sold diff between a selected month and the previous month

select month(transaction\_date) as Month,

round(sum(transaction\_qty),1) as Total\_Orders,

sum(transaction\_qty) - lag(sum(transaction\_qty),1)

over(order by month(transaction\_date)) as MoM\_Qty\_Sold\_Diff

from

Coffee\_Shop\_Sales

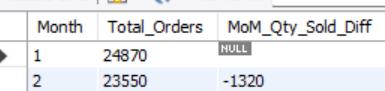
where

month(transaction\_date) in (1,2) -- for Jan and Feb, Respectively 3 Mar,…….

group by

month(transaction\_date)

order by month(transaction\_date);



--Determine the Sales, Order, and quantity sold over specific day

select

round(sum(transaction\_qty \* unit\_price),1) as Total\_Sales,

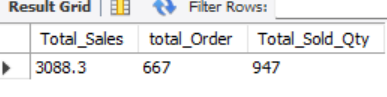
count(transaction\_id) as total\_Order,

sum(transaction\_qty) as Total\_Sold\_Qty

from Coffee\_Shop\_Sales

where transaction\_date = '2023-03-12'

group by transaction\_date;



--Find the Sales performance on Weekdays and weekends

select

case

when dayofweek(transaction\_date) in (1,7) then 'Weekends'

else 'Weekdays'

end as Day\_Type,

concat(round(sum(transaction\_qty \* unit\_price)/1000,1), 'K') as Total\_Sales

from Coffee\_Shop\_Sales

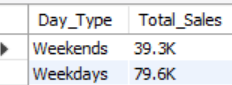
where month(transaction\_date) = 4 -- for April

group by case

when dayofweek(transaction\_date) in (1,7) then 'Weekends'

else 'Weekdays'

end;



--Difference Between Weekdays and Weekends

SELECT

ROUND(SUM(CASE

WHEN DAYOFWEEK(transaction\_date) IN (2, 3, 4, 5, 6) THEN transaction\_qty \* unit\_price

ELSE 0

END), 2) AS total\_weekday\_sales,

ROUND(SUM(CASE

WHEN DAYOFWEEK(transaction\_date) IN (1, 7) THEN transaction\_qty \* unit\_price

ELSE 0

END), 2) AS total\_weekend\_sales,

ROUND(SUM(CASE

WHEN DAYOFWEEK(transaction\_date) IN (2, 3, 4, 5, 6) THEN transaction\_qty \* unit\_price

ELSE 0

END) -

SUM(CASE

WHEN DAYOFWEEK(transaction\_date) IN (1, 7) THEN transaction\_qty \* unit\_price

ELSE 0

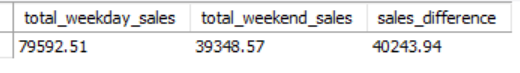
END), 2) AS sales\_difference

FROM

Coffee\_Shop\_Sales

WHERE

MONTH(transaction\_date) = 4; -- for April, Respectively 1 for Jan,……



--Find the Monthly Sales by Store Location

select store\_location,

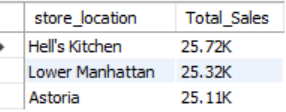
Concat(round(sum(unit\_price \* transaction\_qty)/1000,2),'K') as Total\_Sales

from Coffee\_Shop\_Sales

where month(transaction\_date) = 2 -- for Feb, Respectively 1 for Jan,.....

group by store\_location

order by Total\_Sales desc;



--Find the Daily Sales Average sales value

select round(avg(Total\_Sales),2) as Avg\_Sales

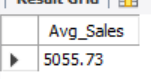
from

(select sum(unit\_price \* transaction\_qty) as Total\_Sales

from Coffee\_Shop\_Sales

where month(transaction\_date) =3 -- For Mar, Respectively ! for jan,....

group by transaction\_date) as internal\_query;



--Find the Daily sales for respective month

select day(transaction\_date) as day\_of\_month,

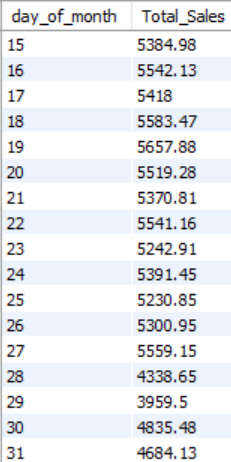
round(sum(transaction\_qty \* unit\_price),2) as Total\_Sales

from Coffee\_Shop\_Sales

where month(transaction\_date) = 5 -- for May, 1 for Jan,...

group by day(transaction\_date)

order by day(transaction\_date);



--Find the Product Category wise Sales

select product\_category,

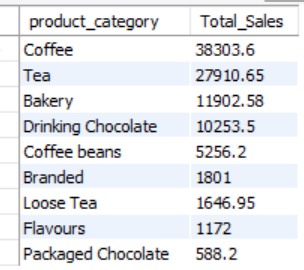
round(sum(transaction\_qty \* unit\_price),2) as Total\_Sales

from Coffee\_Shop\_Sales

where month(transaction\_date) = 3 -- for Mar, 1 for Jan Likewise

group by product\_category

order by Total\_Sales desc;



--Find the category that is contribute most sales value

select product\_category,

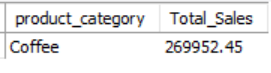
round(sum(transaction\_qty \* unit\_price),2) as Total\_Sales

from Coffee\_Shop\_Sales

group by product\_category

order by Total\_Sales desc

limit 1;



--Find the top 10 high-selling product

select product\_Type,

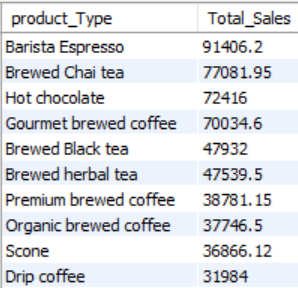
round(sum(transaction\_qty \* unit\_price),2) as Total\_Sales

from Coffee\_Shop\_Sales

group by product\_type

order by Total\_Sales desc

limit 10;



--Find the respective month sales on the basis of day and hours

select

sum(transaction\_qty \* unit\_price) as Total\_Sales,

sum(transaction\_qty) as Total\_sold\_qty,

count(transaction\_id) as Total\_order

from Coffee\_Shop\_Sales

where month(transaction\_date) = 4 -- April Month, likewise....

and dayofweek(transaction\_date) = 2 -- Monday

and hour(transaction\_time) = 6 --

;

